

THE CIVIC EXPANSIONS OF TURIN IN THE
SEVENTEENTH CENTURY: MILITARY ARCHITECTURE
AND URBAN DESIGN

by

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The Civic Expansions of Turin in the Seventeenth Century:
Military Architecture and Urban Design

by
Martha Pollak

Submitted to the Department of History, Theory and Criticism of
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requirements for the Degree of Doctor of Philosophy in Architecture.

ABSTRACT

During the seventeenth-century Turin was enlarged twice by its ruling sovereigns, the Dukes of Savoy. The expansions changed Turin from the Roman-grid castrum into a modern fortress and capital. The design ideals realized in these expansions achieved the forms which still dominate present-day Turin.

Using newly discovered drawings, engravings, and documents I have shown that the second expansion of 1673 was implicit in the plans executed for the first expansion in 1619. If the realized seventeenth century expansions were planned by 1619, the Savoy were far ahead of other institutions and individuals in their patronage of large scale urban interventions. The expansion was motivated by the imperative need for space, for the reinforcement of Turin's defenses, and for the embellishment of the city. The oval form of enlarged Turin corresponded to practical concerns; formally satisfying, it was the most efficient perimeter enclosure.

The archive and the library of the ducal family demonstrate that the cultural atmosphere at the Savoy court was permeated with military concerns. This military atmosphere found expression in the construction of Turin's fortifications. The military treatises dedicated to, or sponsored by the Dukes of Savoy served as a theoretical source, and as models. Military architecture adopted many of the utopian aspects of sixteenth century ideal city planning, and thus transformed was the most important influence in the urban design of Turin.

Theses supervisor: Henry A. Millon
Title: Professor of History and Architecture

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LIST OF ABBREVIATIONS

AL, Rome	Accademia dei Lincei, Rome
ASC, Torino	Archivo Storico Comunale, Turin
AST	Archivio di Stato, Turin
BAV	Biblioteca Apostolica Vaticana
BC, Turin	Biblioteca Civica, Turin
BN	Bibliothèque Nationale, or Biblioteca Nazionale
BA	Biblioteca Ambrosiana, Milan
BG, Paris	Bibliothèque du Génie, Paris
BR	Biblioteca Reale, Turin
Borelli	G.B. Borelli, <u>Editti antichi e nuovi di Sovrani Prencipi della Real Casa di Savoia, delle loro tutrici e de'magistrati di qua da' monti, raccolti d'ordine di Madama Reale Maria Giovanna Battista.</u> Turin, 1681.
Duboin	F. A. Duboin, <u>Raccolta per ordine di materie delle leggi, editti, manifesti, ecc. pubblicati dal principio dell'anno 1681 sino agli 8 dicembre 1798 sotto il felicissimo dominio della Real Casa di Savoia in continuazione a quella del Senatore Borelli, 31 vols.,</u> Turin, 1818-1869.
<u>Theatrum</u>	<u>Theatrum Statuum Regiae Celsitudinis Sabaudiae Ducis Pedemontii Principis Cypri Regis, Pars I exhibens Pedemontium et in eo Augustam Taurinorum et loca viciora Pars altera illustrans Sabaudiam Et caeteras ditiones, 2 tomi, apud haeredes Joannis Blaeu, Amsterdam, 1682.</u>
<u>Memoriale</u>	G. Claretta, <u>Memoriale autografo di Carlo Emanuele II, duca di Savoia,</u> Genoa, 1878.

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PREFACE

The formal history of a city is not easy to write. The elements of urban design, city planning, and architecture are too numerous, and the circumstances too varied over time to be undertaken within one research project by an individual scholar. The ideal city to study would be one that was planned and built within a relatively brief period, and subsequently not altered. I did not find such a city. Thus, while my original intention had been to analyse a city during its entire evolution, I narrowed my study to the development of Turin in the seventeenth century. The remains of the historic center, and previous studies of Turin suggested that this had been a seminal period in the history of the piedmontese capital.

During the seventeenth century the absolute rule of the House of Savoy was established in Piedmont. The powerful government required self-expression, and the reconstruction of Turin was an important part of the ducal ruling program. For the first time since the foundation as a Roman colony, Turin was articulately planned by a planning body whose mandate was to enlarge and fortify it. The plans, established in the second decade of the seventeenth century, were closely followed during several construction campaigns that within fifty-five years altered dramatically, and with lasting effect, the appearance of Turin.

I first became interested in this secretive, reserved, and ordered

city in 1978, in the seminar on piedmontese architecture held by Prof. Henry Millon at MIT. Also at MIT, I participated in the team-study of two smaller, better defined and more contained towns, Savannah and Pienza, which established many of the basic criteria for the formal analysis of the urban environment. I was aided in my own study, challenged, and above all, cautioned by the works of Argan, Braunfels, Lavedan, and Morini, and the recent books on sixteenth and seventeenth century cities by E. and A.M.Guidoni. The study of Noto by S.Tobriner appeared too late for me to use, but of all published works on the city considered as a cultural artifact, it is closest to being a model for the work that I planned, and which is here presented.

INTRODUCTION

The transformation of Turin in the seventeenth century was the conversion of a medieval city, only marginally touched by the social, economic, and aesthetic ideas of the Renaissance, into a national capital. The expansion of Turin beyond its original Roman perimeter was based upon the developments in military architecture and urban design derived from the extensive research of sixteenth-century architects. The clear vision of the Dukes of Savoy led to the definition of the physical aspect of the most important city of their nascent nation, and the sagacity of their legislative acts achieved the envisioned ideal.

The nucleus of medieval Turin had inherited the layout of the Roman castrum. The city had been founded as a military colonial settlement in 28 BC. The cardo and decumanus, whose enlarged crossing at the center of town served as the forum of the military garrison, divided Turin into four parts. The northwest and southwest quadrants were made of sixteen blocks, while the northeast and southeast quadrants had twenty blocks each. The city plan was, like the blocks, almost perfectly square. Its four walls were each approximately 700 meters long; each was penetrated by at least one gate.

The checkerboard grid of streets was deformed through time with the introduction of short diagonal passageways. The walls of the

city were reinforced with towers, and the east gate became the fortified castle of the lords of Acaja. The fortifications were modernized in the 1530s when the French occupied the city. The suburbs around the gates and the outlying monasteries were razed to allow for visual control of the immediate surroundings and for the construction of bastions at the four corners of the castrum. Upon the return to power of the Savoy family, Duke Emanuele Filiberto built a pentagonal fortress in the southwest corner of the city, and additional gates were opened in the north and south walls.

Motivated by ideological and military needs, plans were made to transform Turin. These designs were influenced by notions of ideal city planning and the strategic requirements of military architecture. The enlargement of Turin from a castrum to the nation's capital was achieved in several stages. The planning studies proceeded from the square perimeter of the city to proposals for circular and oval enclosures. In the process, the geometry advocated for the design of the ideal city was abandoned in favor of a modified geometrical form which was better adapted to contemporary local needs. The oval, a much favored form of the seventeenth century, was used to symbolize the modernization of Turin. There were practical as well as formal reasons for the choice of this shape for the plan of the city. It allowed for enclosure of greater area with the same number of bastions that would have been necessary to fortify a smaller town with a circular perimeter. Through the expansions south and east, the palace of the Savoy dukes, which had a

peripheral location in the Roman castrum, achieved a position of centrality.

Thus, part of the ideological requirement of the expansions was fulfilled. The uniformity of the residential structures achieved through a strict code contributed to their function as urban stage, and as contemporary frame for the remodeled and newly constructed ducal buildings. The regularity of private residences coupled with the emphasis on the modernized fortifications lent the city aspects of a military encampment. This military character provided continuity with the original intent of the settlement; but through the formal and strategic renewal of the city, the Dukes of Savoy could claim for Turin the role of a new Rome.

* * * * *

This dissertation will narrate the history of the civic expansions of Turin in the seventeenth century, begun in 1619 and 1673 under the patronages of Dukes Carlo Emanuele I and Carlo Emanuele II, respectively. The motivations for the enlargement of Turin were rooted in a complex web of financial, strategic, and ideological needs. This work will examine both the stated needs of the crown as well as the expansions as they were realized in order to assess the achievement of the patrons and their architects.

It will be shown that in comparison with urban projects elsewhere the seventeenth-century expansions of Turin were highly innovative. Their particular quality is based upon the perseverance of the patrons. They were articulately planned by a group of

military architects and engineers, and they were implemented without important changes by the successive reigning members of the ducal family as part of a Savoy dynastic program. The strong aesthetic and ideological character of an enlarged and ordered city assured its survival in unaltered form, and greatly influenced post-seventeenth-century planning and urban design in Turin. Through its planning, realization, and endurance, Turin emerged and survives as a paradigm of the seventeenth-century city, an iconic example of the visual power of consistent urban design. The seventeenth-century forms continue to shape Turin today. In the ample design for streets, squares, and the building envelop, the architects and planners of Turin showed foresight and imagination. The design of the seventeenth-century city matched the ideological and strategic needs of the ruling dynasty. The demand by the Savoy dukes for a capital city, large, densely populated, and well-disciplined, led to the development of an urban design which conveyed authoritarian government. The completion of the expansions was made possible by the adherence to the original plan by succeeding generations. The belief shared by the Savoy dukes that the fame of Turin as a beautiful and ordered city would enhance the glory of their dynasty insured these costly expansions over lengthy construction intervals.

There are few west European cities where a single intervention has restructured the urban form and organization as fundamentally as in Turin.¹ The influential renewals of London, Karlsruhe, Amsterdam, Paris and Nancy took place later. In each case a centralized

government was able to bring about fundamental change, but in each instance dynastic continuity was imperative for the meaningful maintenance and continued influence of the original master-plan. Urban projects in Rome provide examples for what happened when the dynastic continuity was lacking. While the popes may have had absolute power in Rome, their individual reigns were relatively short; and their sovereignty did not outlast their lives. Each pope turned his back upon the urban projects of his immediate predecessor partially because of the politics of the individual papal families. Due to the discontinuous government and its disparate interests, Rome was fragmented, a collection of unfinished, and unrelated urban nuclei.² By contrast, Turin seems to have been made of whole cloth, cut to fit the requirements of the Savoy dukes. The early accomplishments in urban design in Turin are remarkable not only because the expansions were realized, but also because of the pioneering use of elements that were to become later essential features of city planning. The axial street, the overlap between diagonal and orthogonal grid of streets, and the residential square on a monumental scale are some of the innovations which were successfully carried to completion. The length, the focused direction, and uniform definition of Turin's streets were considered a marvel of urban design and of civic cooperation by its enchanted visitors.³ The punctuation of one's progression through the streets with regular piazzas heightened the spatial experience of the city, and imparted hierarchy to the dominant orthogonal grid plan. The

building code, though not an innovative in itself, became an important tool through its rigid enforcement, with the help of concessions and fines.

The expansions of Turin in 1619 and 1673 were followed by a large building boom. The newly fortified areas provided territory for institutional settlements, and for the increased population. The connection between the first expansion and the Roman city was made through the rebuilding of the ducal palaces which served as pivotal buildings between the old and new parts of the city. Individual members of the ducal family subsidized the construction projects of various religious congregations. The crown did not intervene in the erection of residential structures, rather private enterprise was encouraged through tax waivers. After 1673 the crown's building enterprises were oriented toward the housing of government and military agencies which connected the ducal palace compound to the second expansion area. The construction of specific buildings in the first and second expansions will be discussed here only as they bear upon the realization of the initial plan and urban design.

The dissertation is divided into two parts: the history of the planning and the construction of the expansions, and the models and sources used in the design of the expansions. The first part consists of three chapters: Chapter I examines the documents related to the expansion of 1619; in Chapters II and III the more abundant documents related to the 1673 expansion are discussed. The documentary material for the first three chapters is drawn from the

same sources. They are the minutes of the Fabrice e Fortificazioni Council which designed and supervised the construction of the expansions, and monitored private building.⁴ In addition, the copious letters of members of the ducal family,⁵ and of members of the Fabrice e Fortificazioni Council,⁶ the minutes of the city council,⁷ the Biglietti regi⁸ sent by the crown to the city council, the edicts of the crown,⁹ the payment orders listed in the Camera de' Conti,¹⁰ and the drawings,¹¹ have been used as sources of primary information.

The most important contribution that it is hoped will be made by this dissertation to our knowledge of Turin will be to show that the second expansion of 1673 was intended to take place much earlier, and that it was included in the planning studies for the first expansion. Both written and graphic documents indicate a long planning period preceded the date of the first expansion. Several smaller urban projects were undertaken in the first twenty years of Carlo Emanuele I's reign.¹² The existence of studies for the expansion from the beginning of his rule, and their partial implementation at the beginning of the century indicate that they were intended as measures to gain the needed momentum for the start of the actual expansion. The immediate choice of 1619 as commencement date was due to the wedding ceremony of Carlo Emanuele I's heir Vittorio Amedeo to Henri IV's second daughter Cristina. Following an established Italian tradition of solemn entries, a majestic avenue was prepared for the reception of the newlyweds. In the past temporary construction for

the celebrative welcome had been often translated into permanent additions to the city's monuments.¹³ In Turin the need for ceremonial gates and triumphal arches provided incentive to build the gate outside the existing walls and thus commence the expansion.

Responsibility for the construction of the fortification walls and gates continued to be a cause for disagreement between the city council and the ducal government. The feudal separation of duties regarding fortification (the walls were built, maintained, and owned by the dukes; the gates were the concern of the city) was challenged by the city council but remained unchanged throughout the seventeenth century.¹⁴ The separation of tasks explains why the city gates were more ornate than the walls. Since their construction was paid for by the city, the dukes imposed upon it costly designs provided by the court architects.

The architectural vocabulary of the urban design was partially determined by the construction materials employed. The walls and the bastions of the fortification were built of, or at least clad in high quality red brick. The same facing material was used for the construction of the ducal palaces and the institutions sponsored by the crown in the eastern expansion area. The gates were clad in white stone. Private residences were finished in plaster painted in white, or off-white. The whitewashed plaster hid the poverty of the rubble masonry construction and more importantly, unified further the uniformly built structures. The white private residences formed an unmistakable contrast to the red ducal structures and fortifications.

While functionally different, the latter two were joined by the use of the same finishing material, and in celebration of the military power of the house of Savoy.

Recently discovered drawings have led to the formulation of a new chronological sequence for the planning studies. This in turn has required the alteration of attributions accepted until now. The contribution of the Castellamonte, father and son, is shown to be fundamental in both the design and realization stages. The first three chapters propose changes in the hitherto known planning and implementation sequence, in the function of various elements of the urban design, and in the intended meaning of the architectural vocabulary and its relation to the public domain. In the design of the facades of private residences in Turin, there was a conspicuous resistance to the characteristics of Baroque design as seen in contemporary buildings in Rome. There was a notable preference for a drier, more mannered, and less monumental interpretation of architecture. The scarcity and shallowness of the architectural elements used in facade ornamentation, the extended vertical proportions of windows, and the overall lack of color and rich building materials may be part of the legacy that the Castellamonte, Carlo and Amedeo, inherited from Ascanio Vitozzi, the initial planner of the expansions, who had built extensively in Turin.¹⁵ The mannered architectural vocabulary was not, however, an articulate rejection of the Roman Baroque form.¹⁶ Rather, the dominant uniformity was a requirement and the outcome of consistent urban

design which allowed exceptions from the rule only in the buildings of the ducal family.

The second section of the dissertation consists of two chapters, of which one is focused upon military architecture and sixteenth-century notions of the ideal city; and the other is concerned with the role of the military and civic architects in the design of the seventeenth-century city. The material analyzed in this part consists of military and architectural treatises. The hypothesis to be proven in these two chapters is that military architecture adopted some of the utopian aspects of the ideal city, and in its transformed condition was influential in the urban design of Turin, as well as in the design of other seventeenth-century cities.

The fortification of Turin was the greatest expense in the expansions. A large team of engineers was employed in the supervision of construction and maintenance of the walls and bastions. The construction of the new fortification using advanced military defense methods had political implications since it contributed to the intimidation of would-be enemies and neighbors. At the same time, the wall limited urban growth. It effectively separated town and country, more so in the seventeenth century when a wide belt of land around the fortifications was mined. The increasingly wider fortification divorced the town from the surrounding territory, which nonetheless it controlled militarily. The layout of the streets and squares was influenced by the fortification design which determined the relation between gates,

bastions, and streets. In Turin, by-passing systems of military and civilian domains were developed so that the soldiers and the population need not cross paths.

Military architecture bore a formal influence upon urban design. The first views and plans of cities were commissioned for military purposes. The need for precise drawings and the construction ex-novo of fortresses made imperative the improvements in survey instruments and methods. The increased ability to measure distances and topographical changes accurately was consistent with a growing desire to control development. With the elaboration of military arms and defense came the need for the specialized military builder, the military architect or engineer whose role became crystalized in the seventeenth century.¹⁷ The education of engineers and military architects was made through apprenticeship and the use of the military treatise, a literary form which had evolved partially from architectural treatises, and partially from writings on military strategy. The treatises were concerned with the geometry of the defense line, ballistics, and attack strategy. They were often based upon the author's experience in war. Initially, the fortress was designed defensively, but later it acquired a more active, offensive strategic quality. The problems caused by conflicting civilian and military needs were recognized by the military engineers who sought compromises. The fringe benefits of military planning were accurate topographical measurements, rapid development in cartography, and progress in the study of descriptive geometry.¹⁸

Interest in perfect geometrical form had been a hallmark of utopian city planning. Ideal cities represented the ideological content of the government mirrored in the abstraction of their layout. The ideal city expressed the need for control, centralization, and regularity. The ideal city became the ideal fortress, as political independence rather than notions of social hierarchy was seen as the primary urban and national problem.¹⁹ At the same time, since military planning had to respond to specific sites and topographical conditions, unlike the ideal city where planning was abstractly conceived, the perfect geometrical form was seldom used without modification.

Even though the profession became specialized towards the end of the sixteenth century, in Piedmont there were many architects who continued to practice both civic and military design.²⁰ The main protagonists of the expansions of Turin oversaw the construction of canals, bridges, fortifications, military structures, as well as ecclesiastic and residential buildings. It was in the management that the separation of functions was more noticeable, where the foremen were specialized in either architecture or engineering. In Turin military architecture flourished through the discussion of treatises, sponsored by or dedicated to the Dukes of Savoy, through the study of mathematics and geometry, and through the martial attitude of the nobility. The geographical location of the duchy, between French and Spanish holdings, obliged the population and the army to be ready for war constantly. This fear of attack rendered

the fortifications indispensable. The supremacy of the military culture was discernible in all Piedmontese society, and urban design in Turin cannot be understood without accounting for the influence that this military culture exercised.

NOTES TO THE INTRODUCTION

1. The best known example is the planning and construction of Palmanova, built as the eastern bulwark of the Venetian Republic. See Horst de la Croix, "Palmanova, A Study in Sixteenth-Century Urbanism," Saggi e Memorie, 1962, 5:23-41.
2. Of the popes who reigned before the seventeenth century, Nicholas V and Sixtus V (their papacies neatly framing the Renaissance in Rome) proposed comprehensive planning projects. The plan of Sixtus V, largely implemented, provided a specific framework which reorganized the city, clarified underlying connections, and pointed out the location of future building sites.
3. See the discussion of travel journals and guides below.
4. AST, Sez. Riunite, Fabbriche e Fortificazioni, art. 199; also art. 193, 195, 197, 199.1, 200, 201, 202, 205, 207; Consiglio delle Finanze, art. 195.
Meetings were recorded by the secretary of the council. The Consiglio delle Finanze briefly incorporated the Fabbriche e Fortificazioni Council in the 1660s and 1670s.
5. AST, Sez. Ia., Lettere Principi Savoia, Serie Ia., Duchi e Sovrani. The mazzi are arranged by rank and in chronological order. Carlo Emanuele I's letters are in mazzi 12-34, Vittorio Amedeo I's letters are in mazzi 46-57, Cristina's letters are in mazzi 58-63, Carlo Emanuele II's letters are in mazzi 64-65.
6. AST, Sez. Ia., Lettere Particolari.
The letters are filed by author, in alphabetical order.
7. ASC Torino, Ordinati, 1610-1675.
The minutes of every meeting were recorded by the secretary of the city council. The legislature promulgated by the city was partially published in: Inventario degli Atti dell' Archivio Comunale, Turin, 1935-38.
8. ASC Torino, Biglietti Regi, Carte Sciolte.
They are the official orders of the crown to the city council. Unofficial orders were carried verbally by representatives of the duke.

9. AST, Sez. Ia., Editti Originali, AST, Sez. Riunite, art. 693, 1-5.
These are two complete collections of original printed edicts, promulgated by the crown they were read and posted in Turin.
10. AST, Sez. Riunite, Camera de' Conti, art. 614, Tesoreria Generale, art. 86, Fabbriche e Fortificazioni, art. 180.
In art. 86 the payment orders were entered in chronological order; this article is the most important source for payment orders.
11. AST, Sez. Riunite, Typi, Sez. II, Sez. IV, Sez. Ia., Carte Topografiche, Torino per A e B, Disegni di Architettura Militare e Fortificazioni.
ASC Torino, coll. Simeom.
BN Paris, Cabinet des Estampes, Etats Sardes, f.o Vbl-17.
Biblioteca Ambrosiana, Milan, Cod. Ambr. T189 Sup.
12. AST, Sez. Ia., Carte Topografiche, ASC Torino, coll. Simemom.
Expansion and urban design studies were made, among others, by Ascanio Vitozzi, Vitozzo Vitozzi, and Monsa.
13. Il Potere e lo Spazio, F. Borsi, ed., Florence, 1980, M. Fagiolo, "Effimero e Giardino: Il Teatro della Città e il Teatro della Natura," 29-55.
14. ASC Torino, Ordinati.
The city council attempted to avoid the onerous payments for the architecturally elaborate gates.
15. Ascanio Vitozzi built three churches in Turin of which only one, the free-standing church of the Cappuccini on the hill across the river, could be seen from a distance. The Trinitá and Corpus Domini were built on rowhouse-like sites in Citta' Vecchia, and their facades were built much later. The aridity of Vitozzi's architectural vocabulary was most obvious in the design for the facades of Contrada Nuova.
16. A. Blunt, "Roman Baroque Architecture, the Other Side of the Medal," Art History, 1980, 3:1:61-80.
Blunt demonstrated convincingly that parallel to the Baroque design of monumental buildings in Rome there was also an alternate classical architectural vocabulary developed for the composition and massing of simpler residential and monastic structures.

17. J. R. Hale, "The Argument of Some Military Title Pages of the Renaissance," The Newberry Library Bulletin, 1964, 6:491-102.
Hale analyzes the iconographic meaning of the title pages of treatises from the later sixteenth century and the early seventeenth century, and demonstrates that military architects sought to claim for their profession the attributes of strength and intellect. While civic architects had succeeded in having architecture accepted as a humanistic art, the engineers attempted to align themselves with the political arts, comparing themselves to statesmen.
18. E. Pognon, "Les Plus Anciens Plans de Villes et les Evénements Militaire," Imago Mundi, Amsterdam, 1968, 22:13-19.
19. P. Francastel, "Paris et la Creation Urbaine en Europe au XVIIe Siecle," L'Urbanisme de Paris et L'Europe 1600-1680, Paris, 1969, 9-37.
" . . . la descendance de la ville idéale, conforme aux vues philosophiques des penseurs italiens de la Renaissance se trouve, au XVIIe siècle, dans l'architecture militaire. . . . Le successeurs de Stevin et de Jacques Perret, de Samuel Marolois et de Salomon de Brosse, identifieront, jusqu'à Vauban, la ville idéale selon Alberti à la place de guerre."
20. Hale and de la Croix have arrived at opposite conclusions. De la Croix finds that the professional split into two groups, practicing either military or civic architecture, whereas Hale asserts that many architects continued to work in both fields. The ducal architects in Turin worked in both fields of architecture bearing out Hale's conclusion.

CHAPTER I

METHODOLOGICAL AND HISTORIOGRAPHICAL ISSUES

Of the several works that focus upon the urban history of Turin, the monumental work produced by a team of scholars entitled Forma urbana ed architettura nella Torino barocca has made research on Turin possible by illustrating the range and the availability of primary sources. Its subtitle, Dalle premesse classiche alle conclusioni neoclassiche, demonstrates the ambitious span of time covered in the text and the illustrations.¹ The study is comprehensive in the quantity of documentary material employed in support of a wide range of arguments that are addressed. Almost all the documents related to the planning and design of Turin (statutes, building codes, zoning regulation) were assembled from the various archival and printed sources, and presented in toto. They are utilized in the conjectural reconstruction of Turin's plan in the eighteenth and nineteenth centuries.² The immediate surroundings of Turin, considered as important ingredients in the functioning and explication of the urban plan, are also included.³

Beside cartography, statistical method is utilized in the reconstruction of building types, and in the calculations of their recurrence. The explication of the urban form proceeds from the topographical analysis of the surrounding region, to the definition of the morphology of the urban plan. Finally, the taxonomy of the

individual building types and their development within the category of neighborhoods is considered.⁴ However, the factual history of Turin's development, from its beginnings as a Roman colony to the industrial city of the nineteenth century, is not methodically narrated. Only the periods crucial to this development are considered in detail. They are the Roman plan itself, the decay of the plan in the fifteenth century, and the renewal and expansion of Turin beginning at the end of the sixteenth century. The semi-scientific approach of the authors results in an unfocused product. Statistical analysis does not seem the right key to unlock the secrets of Turin's urban design. The comprehensive attitude results in a schematic outline of numerous aspects of Turin's urban history, few of which are treated in depth. This monumental effort is, however, valuable for an overview of urban planning and design in Turin. The documents transcribed are only partially utilized in the sketchy analysis, and thus many questions and problems are not satisfactorily resolved.

By contrast, the present study spans a short historical period, 1610-1675. The chapters on city planning and urban design narrate the critical aspects of the development of Turin. Newly found documents and drawings, as well as the analysis of previously partially interpreted information have made possible an alternate explanation of the events. A closer reading of the dominant aspect of Piedmontese culture, the military inclinations of the aristocracy, has provided additional background for the interpretation of the

design of Turin's plan and buildings. The reconstruction of the historical sequence of events was made using elements internal to urban design, the expansion studies and plans, rather than the partial method of surface archaeology employed by the authors of Forma urbana.

This approach shares common ground with the work of Mario Passanti which, however, spans the entire development of the city. The brevity of his work places it at the opposite extreme from that of the lengthy work discussed above.⁵ Nonetheless, Passanti includes all the information known about Turin: the expansions, the composition of the Piedmontese society, and the major political events which occurred under each reigning duke from Emanuele Filiberto to the unification of Italy. Given the scope of his study the treatment was necessarily epidermic; and in contrast with the larger work, Passanti does not boast of using a novel methodology.

Piero Gribaudo's essays on the urban development of Turin, published in 1908 and 1933, were an important source for Passanti.⁶ As in Passanti's analysis, the history of Turin from the Roman settlement to Emanuele Filiberto's reign is briefly outlined, while the expansions of the seventeenth, eighteenth, and nineteenth centuries are more fully discussed. The pragmatic method was fully illustrated in bringing the historical narration up to the moment of writing. Thus, contemporary Turin was seen by Gribaudo as directly indebted to the planners of the preceding centuries whose ideas had been continued in the nineteenth-century expansions.

In several publications the contributions of individual architects and military engineers are profoundly analyzed and documented. In an article by Vittorio Viale a newly discovered view of Piazza Castello was discussed.⁷ Dated 1605 it illustrated many of the design ideas later implemented in Ascanio Vitozzi's project for the definition of the square and the opening of the Contrada Nuova, but Viale attributed it to Monsa, the draughtsman, rather than Vitozzi. The work of Vitozzi, a major contributor to the development of Turin from a Roman castrum to a modern capital, was amply analyzed using additional documents by Nino Carboneri.⁸ Carboneri showed how Vitozzi's combined background of military man, and architect trained in the Roman tradition of the second half of the sixteenth century was put to use in the remodeling of Turin's center. Better known as an architect than a city planner, Vitozzi's contributions to the fortification of the duchy had an important urban design content which Carboneri did not underline. Aurora Scotti's more recent contribution to Vitozzi studies placed greater weight on his engineering and urbanistic works than Carboneri.⁹ Although she did not uncover new material, Scotti placed Vitozzi within the context of the Savoy court engineers at the end of the sixteenth century. This work detailed further the cultural and military aspects of Vitozzi's social environment in Turin.

The history of Turin's seventeenth-century expansions was discussed also in the monograph on the architects Carlo and Amedeo Castellamonte by Camillo Boggio.¹⁰ Boggio, who did archival

research, was an important source for Passanti and the authors of the Forma urbana. His work was expanded upon, with a critical analysis of Carlo Castellamonte's contribution, in an article by L. Collobi.¹¹ Collobi set the record straight for several dates reported by Boggio, and criticized the recent appraisal of Piedmontese architecture¹² asserting Carlo's regressive role in the stylistic development of local architecture in the seventeenth century. Study drawings for the expansion of Turin were uncovered by Vera Comoli-Mandracci,¹³ further clarifying the contribution made by Carlo Castellamonte in the design of Piazza S. Carlo in the first expansion, and by Amedeo Castellamonte in the original plan for Piazza Carlina in the second expansion area.

A recent article on urban design in Turin in the seventeenth and eighteenth centuries by L. Re and M. G. Vinardi was concerned with the building codes and regulations which determined the design of facades in the expansion areas.¹⁴ While adding no new material, this contribution to the sizable literature rearranges documents published previously by Comoli-Mandracci and Umberto Bertagna.¹⁵ The latter's article on Piazza S. Carlo clarified the current aspect of the porticoes through publication of the documents regarding the reinforcement of the coupled columns between 1764-70. In this article, as in the articles by Olivero¹⁶ and Brayda,¹⁷ the entire design and construction history of the square was reiterated without authoritative interpretation of the planning sequence. The inconclusiveness is due most likely to the fragmentary approach to

the material available.

The articles on urban design in Piedmont and Turin presented by Cavallari-Murat and Lavedan at the X Congress of the History of Architecture were generic and mistaken, respectively.¹⁸ Cavallari-Murat's efforts were developed later into his contributions in the Forma urbana, which as seen above was to fall short of a persuasive reconstruction of the events, and would not touch upon their importance within western European design. Lavedan's polemical interpretation of Turin's orthogonal plan as entirely classical, and of its architecture as entirely baroque simplified the characteristics of seventeenth-century design in both architecture and urban planning, eliminating the possibility of parallel trends and ignoring the local innovations in city planning.

Although focused largely on the history of ancient Roman Turin, the work of Carlo Promis contained an important chapter on the historic plans of the city, the ancient walls, and the gates.¹⁹ The period covered by the plans is between 1550-1650, and although Promis was not concerned with the seventeenth-century expansions, he included entries for eighteen drawings and atlases that he had seen.

There is, in addition, a large body of literature on architecture in Piedmont and Turin of the seventeenth and eighteenth centuries. Of these, two have been valuable in charting the expansions of Turin because of their accurate and detailed history of major ecclesiastical and ducal buildings. Luciano Tamburini's work is invaluable for the history of churches in the south and east

expansion areas.²⁰ Since many of these buildings predated the expansions, or were constructed simultaneously with the expansions, they are like sign posts along the newly opened streets whose orientation they often determine. Another important work is the catalogue for the Baroque exhibition in 1963 in Turin.²¹ The catalogue contains a chapter on local architecture, entries on the major architects in Piedmont, and a chapter dedicated to the history of the buildings in which the exhibition was held.

The essential printed source for the history of seventeenth-century Turin was edited by F. A. Duboin, who transcribed legislation from 1681 to 1798.²² The publication was intended to continue the work of G. B. Borelli, which had been sponsored by the regent Giovanna Battista.²³ Within this gigantic enterprise, the edicts related to building, streets and squares are grouped in a separate volume. The policy of the seventeenth-century Savoy dukes can be followed through these rulings which show the intention to populate Turin in order to exalt and enrich the ducal house. The collection by Duboin includes edicts promulgated before 1681 overlooked by Borelli, and they help greatly in the reconstruction of the planning and realization effort for the two extensions. Many of the edicts have been transcribed in the Forma urbana, but the authors ignored several that seem to have been decisive in the planning of the expansion. For a complete record both collections must be consulted. The contents of Duboin's work are divided into sixteen parts, and since some of the edicts pertaining to the expansions may

be filed under unlikely headings, the general chronological index with which the publication concludes is useful.

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Three other kinds of printed primary sources have been used in the research on Turin's civic expansions. They are the Relazioni of the seventeenth century Venetian ambassadors, the Avvisi which were an early newspaper form, and the guidebooks and travel journals from the seventeenth and eighteenth centuries. The reports of the Venetian ambassadors were published by Barozzi-Berchet.²⁴ These reports consist of descriptions of Piedmont's topography, demography, laws and customs, politics, and the wealth of rulers. Although generic, repetitive, and lacking in critical analysis, the Relazioni are valuable because they show how Piedmont and Turin were perceived by these acute and perspicacious seventeenth-century visitors.

The Avvisi are a more useful and dynamic group of documents. They had the form of a primitive newspaper; the compilation of news and gossip was often handwritten rather than printed, collected by a local reporter, and circulated like mail through a courier. The Avvisi of Turin arrived in Rome with the imperial courier from Genoa, or from Venice.²⁵ While the length of travel for the Avvisi varied according to circumstances (weather, post horses, peace conditions), the gathering of the news was dependent only on the reporter. Thus, under certain papal nuncios, the news was collected with surprising swiftness. Often these papal amabassadors were acutely aware of contemplated changes in the promulgation of planning and building

edicts; the changes were often known at the papal court in Rome before the citizens of Turin were officially informed.

The last of the printed sources listed above, the guides of Turin and the diaries/journals of travelers in Turin, are perhaps the most varied and interesting. They contain the most enthusiastic and the most critical descriptions of the city. Often the response of the writer depended on his nationality, and whether Turin was the first or last Italian city that he was visiting. A survey of fourteen travel journals published between 1611 and 1796 will provide an overview of Turin, contemporary with its planning and expansion.

T. Coryat saw Turin before the expansion sponsored by Carlo Emanuele I had begun, and his description of Turin can help us visualize the city before the building efforts were begun in 1619.²⁶ There is strong contrast between the prose of the English commoner Coryat and that of the Prince de Condé, who visited Turin in 1622 and wrote about it in his journal.²⁷ The geographer of the King of France, P. Du Val wrote about Turin in 1656 when the first expansion was complete, and he did not fail to note the additions.²⁸

The impressions of J. Ray, although published in the eighteenth century, date from 1663 when he saw the mourning of Cristina by Carlo Emanuele II. Ray wrote more extensively than Du Val, providing information about Piedmont, as well as Turin, which he considered a very prosperous region devoted to its ruling family.²⁹ M. de Monconys, royal councillor and lieutenant in Lyon, visited Turin in July 1664 in order to see his friend Marchese di S. Tommaso. His

impressions of the city were much less favorable than those of J. Ray, and also shorter.³⁰

R. Lassels, another Englishman who published his journal in 1670, provided information about the House of Savoy and the military might of the reigning duke, while describing Turin favorably.³¹ In M. Misson's journal the description of Turin was written in letter form; dated 1688 it gave a view of Turin closest in time to the second expansion.³² G. B. Pacichelli's entry on Turin, written also in letter form and published in 1685, does not tell much about the expansion towards the Po. The author showed greater interest in the ducal family and government than in his physical surroundings. Since the letter had been composed in 1677, perhaps it was too close to the inception of the eastern expansion for the results to be discernable.³³ J. G. Keyssler, the sole German writer who visited Turin the first half of the eighteenth century, provides the reader with quantifiable information, not mere impressions. He mentions a walk around the fortified wall of Turin, but notes that permission from the governor is required. He estimates the population to be 54,600, mentions that there are forty-eight churches and convents inside the walls and seventeen outside the walls. He did not miss noting the regularity and great dimensions of Contrada Nuova and Contrada di Po, the most important streets of the south and east expansion, respectively, and complained about the lack of a good map of the city.³⁴

Cochin's impressions date from 1726, when he visited Italy with

the Marquis de Marigny, the future Directeur de Batiments, Jardins, etc., Soufflot, and the Abbe de Blanc. His contribution is important because he lists the best works of art in the ducal palace. Cochin's spirited remarks describe pithily Contrada di Po, Porta Po, Piazza Reale and the urbanistic contribution of the Torinese palace type.³⁵ J. J. de La Lande travel journal was first published in 1769. It provided a lengthier description of Turin and its history than previous journals. The format was similar to that of the Venetian ambassadors' report: history, population, customs, administration, state of the sciences, weights and measures, value of currency, revenue and taxes were included. In this rationalized description La Lande praised highly those aspects of Turin that could appeal to a rational mind, and which are Turin's most praiseworthy characteristics.³⁶ He considered Turin as a most beautiful town because of its regularity. There was some criticism which moderated the praise, such as mention of the dark houses along the Contrada di Po, the poor masonry construction of the Palazzo Reale, and the use of Piazza S. Carlo as a market, as well as a parade ground.

The description of Turin by the Abbe Richard provides us with proof that the grid pattern of the city's streets was admired widely in the eighteenth century.³⁷ Th. Nugent was a contributor to travel literature as a translator of M. Grosley, and as a writer in his own right. His impressions were not influenced by the negative judgment published in the earlier journal by Grosley.³⁸

The traveler to Italy whose journal has achieved most renown was

Charles de Brosses. It was published at the end of the eighteenth century, and Turin was described in the last letter from Italy.³⁹ President of the Parliament in Dijon, de Brosses praised Turin as the most beautiful Italian, and perhaps, European town because of the straightness of its streets, the regularity of the buildings, and the proportions of the squares. He found the architecture of evenly good quality, but was struck by the lack of really great buildings. Two structures appealed to him above others: the facade and staircase of the Palazzo Madama, which he found, however, lacking in functional apartments, and the new theatre, which he considered the most magnificent in Italy. His utter dislike of the Ss. Sindone chapel is significant of the taste for classical rationalism which was repelled by the expressive black marble and "gothic" vault of Guarini's design.⁴⁰

The first professional guide to Turin was written and published in 1753 by a local bookseller.⁴¹ It was issued on the tricentennial anniversary of the miracle of the Holy Sacrament and reprinted many times. The author, Craveri, attempted to clarify the history of each important building, without definitive results. The model for the organization of the guide was probably the 1682 edition of the Theatrum which was reissued in a French edition in 1700.⁴² However, Craveri tried to provide a stylistic analysis of the buildings which had not been done in the Theatrum, and of course he had no models at all for the description of the buildings erected after 1682.

The guide by Derossi may be considered the first modern guide.⁴³

The 58-item legend attached to the map of Turin provided in the guide listed the most important places in Turin arranged by owner, parish, and architect. There was extensive information provided for the important buildings, which were grouped by functional type. Thus, for each church Derossi listed the parish, block, religious order, altars and their patrons, paintings, and sculptures that decorated the interior, the staff, and the literature on the building. In its similarity to a list, Derossi's guide differed greatly from the pithy travel journal of President de Brosses.

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The second section of this dissertation on the seventeenth-century expansions of Turin will examine the sources which influenced its urban design. Military architecture and planning determined the perimeter form and the layout of the streets, and the notions of the ideal city provided the theoretical base for the new town-planning attitudes. In his Fortification: Architecture or Engineering?, J. R. Hale has defined the difficulty of interpretation which has plagued military architecture.⁴⁴ He has shown that although in the traditional history of architecture fortifications have been dismissed as large scale civil engineering works without aesthetic content, the builders of fortifications in western Europe in the fifteenth and sixteenth centuries were almost all architects. Moreover, these architects were proud of their ability as military engineers, a profession that they endeavored to practice because the experimentation implicit in its practice made

military architecture interesting. As military designers they were likely to be in greater demand than civil architects, partly because defense was important even to poorer patrons.⁴⁵

Until the middle of the sixteenth century most architects were involved in both civil and military projects, but De la Croix has argued that the two aspects of building began to separate after 1535.⁴⁶ Military planning became a domain of specialization, and most architects were likely to build only in one field. Hale and De la Croix have recently examined the influence of military planning upon urban design. Earlier, Carlo Promis wrote extensively on military architects. Beginning with an unexamined assumption that military design was an important part of architecture, he studied the works of Italian, and particularly Piedmontese architects.⁴⁷ Military architects were treated in chronological order, and their works, actual and theoretical, were analyzed in terms of patronage. Promis did not discuss the actual impact of military architecture upon urban design. This was a theme considered recently by Enrico and A. M. Guidoni, generally in their encyclopedic Storia dell'urbanistica, and more specifically in "L'Architetto e la Fortezza," where the importance of the fortress as symbol and as construction in the Renaissance was thoroughly examined.⁴⁸

If the postulate that military architecture is a determining factor in urban design is accepted, then more should be known about the technical aspects of fortification. The walls and bastions of the city were a costly undertaking in construction and in

maintenance. Their design depended upon developments and innovations in ballistics and strategy. The historical development of the post-cannon fortification was reliably analyzed by E. Rocchi.⁴⁹ The influence of walls upon the form of the town dates at least from the classical antiquity. Walls and bastions remained relatively unchanged until the fifteenth century. Then cannon became more common. Better made and lighter, improved cannon were more easily moved, and could be used in siege. The fortified wall no longer sufficed to repel attackers, since it could be shattered from a distance.

Fortification, formerly defensive, was forced to become more dynamic and offensive. The extended bastion was developed as a way of defending the fortified wall. By jutting out into the countryside past the walls, the bastion achieved greater control of the enemy's movements. The achievement of sixteenth century military design was the increased sophistication of the bastion and its related elements. In the seventeenth century, the strategic relation between the city plan and the fortification system was further developed. While Rocchi was concerned with urban design, he analyzed the debate regarding the connections between gates, streets, and central square vs. connections between bastions, streets, and the enclosing wall. This debate engaged both city planners/urban designers and military experts. The civilians emphasized the gate-street-central square connection, whereas the military architects were concerned with the dominance of the bastions, streets, and wall perimeter.

The concerns of military architecture in the seventeenth century were seen as partially inherited from the ideal city notions current in the sixteenth century by Francastel, whose main point was that to military architects the ideal city had become the ideal fortress.⁵⁰ This common heritage was based upon the shared interest in geometrical and centralized plans. The sixteenth century radial ideal city planned by a benign but authoritarian central government proposed circles or regular polygons, with distinct zones of use concentrated upon a main square framed by governmental buildings. This diagram of the ideal city was adopted in the layout of a few perfect fortresses. Even when local circumstances did not permit perfect geometrical designs for fortifications, the theories of idealized military architecture were important in the planning stages.

Studies of the ideal city are limited and do not include a discussion of its adaptation to military uses. Even so, the works by Munter, Lang, and Eimer are important for their analyses of theories of the ideal city in the fifteenth and sixteenth centuries.⁵¹ These theories were often part of the architectural treatises that were produced in such abundance.⁵² When the schism between civic and military architecture was imminent, another literary type emerged to educate the new profession: the military treatise.⁵³ Military treatises published in Italy, France, Germany, and England from the middle of the sixteenth century on, were crucial in teaching applied geometry, survey methods, and stereotomy, useful in calculating

materials needed in masonry construction.⁵⁴ Military treatises, like architectural treatises, ranged in content from pragmatic technical discussions, almost how-to books, to aesthetic and theoretical aspects of design. As in architectural design, interest in the aesthetic aspects of fortification was manifested through emphasis on perfect geometrical form and proportions.

Military treatises were widely read in the seventeenth century, not only by architects and engineers, but also by the highly militarized leadership, reigning monarchs, army chiefs, ambassadors, the nobility, and professional soldiers.⁵⁵ Thus, beyond their immediate utility in considering the military components of city planning and urban design, they are an important source for understanding the military culture and its dominance of everyday life.

Military architecture and urban design were treated integrally in the illustrations of the Theatrum.⁵⁶ Plates illustrating Turin show not only its plan, major buildings, and gates but also the fortification belt, the citadel with a detail of its bastion, its water supply, details of the fortified walls, and the temporary defenses which surrounded Turin in the civil war of 1640. Isolated the content of these plates could be reason for surprise. However, since Turin was equally well fortified from all sides, there was no reticence to publicly and precisely display its bastioned trace. The fact that there was equal interest in the buildings, the urban plan, and the fortifications leads one to believe that they were

inseparable in the minds of Turin's builders. This realization has led to my study in which the impact of military planning is considered an essential ingredient of urban planning and design. Having transcended its pragmatic aspects, military architecture became a theoretical and ideological driving force.

NOTES TO CHAPTER I

1. A. Cavallari-Murat, ed., Forma urbana et architettura nella Torino barocca, dalle premesse classiche alle conclusioni neoclassiche, 3 vols., Turin, 1968.
Although the emphasis is on the architecture and urbanism of Turin in the seventeenth century, the entire history of the city from its Roman foundation to the beginning of the industrial age is narrated.
2. Ibid., v. 3.
The reconstruction maps, using an original and innovative notation system, are possibly the most controversial part of the study. The authors attempt to reconstruct not only the plans of buildings, their outline, entry, and vertical circulation, but also to show building heights, bays, and fenestration.
3. Ibid., v. 3.
A mid-nineteenth century plan, into which twentieth-century information has been interpolated, is used to describe the topography of Turin's territory, including farms, monasteries, and villas.
4. Ibid., v. 2.
The classification is more reliable for the eighteenth-century expansion to the south for which more documentary evidence was available, and the buildings had undergone fewer alterations.
5. Mario Passanti, Lo sviluppo urbanistico di Torino dalla fondazione all'unit  d'Italia, Turin, 1969.
6. Piero Gribaudo, La posizione geografica e lo sviluppo di Torino, Turin, 1909.
Piero Gribaudo, Lo sviluppo edilizio di Torino dall'epoca romana ai giorni nostri, Turin, 1933.
Gribaudo's and Passanti's reconstruction of the growth and urban design of Turin was based upon previous writings; neither seems to have studied archival sources.
7. Vittorio Viale, "Un Antico Progetto per la sistemazione di Piazza Castello e del Centro di Torino," Bollettino Storico-Bibliografico Subalpino, 1942, 44, 2:52-62.

8. Nino Carboneri, Ascanio Vitozzi, un architetto tra Manierismo e Barocco, Rome, 1966.
The bulk of the text is focused on Vitozzi's architectural production, while the documents refer to his military and engineering works outside Turin.
9. Aurora Scotti, Ascanio Vitozzi, ingegnere ducale a Torino, Florence, 1969.
The proportions are reversed in this monograph where Vitozzi's production in urban design and fortification is the focus. In addition, two chapters are dedicated to three other military architects active at the Savoy court.
10. Camillo Boggio, "Gli Architetti Carlo ed Amedeo di Castellamonte e lo Sviluppo Edilizio di Torino nel Secolo XVII," L'opera di Carlo e Amedeo di Castellamonte nel XVII secolo, Turin, (1895), 1966.
Reprinted with several other articles on the Castellamonte, Boggio's contribution was the first to focus on the work of the father and son team.
11. L. Collobi, "Carlo di Castellamonte Primo Ingegnere del Duca di Savoia," Bolletino Storico-Bibliografico Subalpino, 1937, 39:232-263.
12. Ibid.
Collobi criticized A. E. Brinckmann for including the buildings from 1580-1660 in the "golden period" of Piedmontese architecture, since it is not accurate to consider the architecture of that period baroque, in his Die Baukunst des 17. and 18. Jahrhunderts in den romischen Landern, Berlin, 1919.
13. Vera Comoli-Mandracci, Analisi di un fatto urbano: Piazza San Carlo nel quadro della formazione e delle trasformazioni della Citta Nuova, Turin, 1974.
The twin churches were interpreted as representing a symbiosis of state and church, failing to note that the churches do not dominate the square where the residential structures are more commanding. See also, Vera Comoli-Mandracci, "Note sull'Urbanistica Barocca a Torino," Studi Piemontesi, 1973, 3:335-340. Drawings from the Biblioteca Ambrosiana, Milan, are presented by the author who did not, however, attempt to date them.
14. L. Re and M. G. Vinardi, "The Facades of Turin - A City's Face," Daidalos, 1982, 6:47-61.

15. Umberto Bertagna, "Piazza San Carlo: dal Castellamonte ai Restauri Statici del Secondo Settecento," Cronache Economiche, Dec. 1976.
16. E. Olivero, "Un pensiero Architettonico di Ascanio Vitozzi," Torino, 1939, 19:29-36.
The most relevant contribution of this work was to rectify the date of Vitozzi's death placing it in 1615, when Promis had thought it had occurred in 1625.
17. C. Brayda, "Vitozzo Vitozzi Ingegnere Militare e Alcuni Disegni di Torino Antica," Torino, 1939, 19:15-19.
The expansion projects for Turin from the end of the sixteenth century are discussed and compared. Brayda's attribution of several important drawings to Vitozzo have been accepted by other historians.
18. A. Cavallari-Murat, "Considerazioni sull'Urbanistica in Piemonte dall'Antichita all'Ottocento," P. Lavedan, "Existe-t-il un Urbanisme Baroque?" Atti del X Congresso di Storia dell'architettura, Turin 1957, Rome 1959.
19. Carlo Promis, Storia della antica Torino, Turin, (1869), 1969.
Of the drawings and maps listed by Promis I have not seen the ones in Florence, Biblioteca Nazionale, and Venice, Biblioteca Marciana.
20. Luciano Tamburini, Le Chiese di Torino dal Rinascimento al Barocco, Turin, 1968, 314.
Churches are grouped by century; there is no formal analysis, only the detailed building history. The premise on which Tamburini is working is that the capital, Turin, was "half barracks, half monastery," with the lay population hardly twice the number of monks and nuns.
21. V. Viale, ed., Mostra del Barocco piemontese, 3 vols., Turin, 1963, v. I, M. Bernardi, "Le sedi," N. Carboneri, "Architettura." The twelve-page bibliography on Piedmontese architecture has grown even longer in the past two decades, but the 1963 exhibition was instrumental in focusing attention on the architecture of this region.
22. F. A. Duboin and C. Duboin, Raccolta per ordine di materia delle leggi, provvidenze, editti, manifesti, ecc. pubblicate dall'principio dell'anno 1681 sino agli 8 dicembre 1798 sotto il felicissimo dominio della Real Casa di Savoia per servire di continuazione a quella di Senatore Borelli, 31 vols., Turin, 1818-1869.

23. G. B. Borelli, Editti antichi e nuovi di Sovrani Principi della Real Casa di Savoia, delle loro tuttrici e de' magistrati di qua da' monti raccolti d'ordine di Madama Reale Maria Giovanna Battista dal Senatore Gio. Battista Borelli, con doppio indice, cioe uno de' libri e titoli, e con altro delle materie, Turin, 1681.
24. Barozzi-Berchet, ed., Le relazioni degli stati europei lette al Senato dagli Ambasciatori veneziani nel secolo decimosettimo, Venice, 1862, Serie III, Italia, v. I., Torino.
A similar source, but without the reliability of the venetian "relazioni" is in Relazioni inedite di ambasciatori lucchesi alle corti di Firenze, Genova, Milano, Modena, Parma, Torino (sec. XVI-XVII), Lucca, 1901, 319-327, relazione di Torino, March 18, 1633.
25. The fondo Barberini Latini at the Vatican library has the richest collection of Avvisi. For the importance of the Avvisi in the political and cultural life of the period, see J. Delumeau, Vie économique et sociale de Rome dans la seconde moitié du XVIIe siècle, 2 vols., Paris, 1957-59.
26. Coryat's Crudities, hastily gobbled up in five months travels in France, Savoy, Italy, Rhetia commonly called the Grisons country, Helvetia alias Switzerland, some parts of High Germany and the Netherlands, newly digested in the hungry aire of Odcombe in the county of Somerset, and now dispensed to the nourishment of the traveling members of this kingdom by Thomas Coryat, 2 vols., Glasgow, (1611), 1905, Observations on Turin, v. I, 229-232.
". . . Surely I observed it to be a faire city, having many stately buildings both publique and private. . . . This city is built all with bricke, and is of a square forme. . . . He [the duke] hath lately built a very goodly gallery, a work of notable magnificence near the Palace. For it is of a very stately height, and built all with white stone; truely it is incomparably the fairest that ever I saw saving the King of France's at the Louvre in Paris. . . ."
27. Voyage de Monsieur le Prince de Condé, en Italie depuis son partemet du camp de Montpellier iusques à son retour en la maison de Monson ensemble les rémarques des choses les plus notables qu il a veues en son dit voyage, Bourges, 1624, 6.
". . . Turin est une ville de moyenne grandeur proche de laquelle passe la rivièrre du Pau et la Doire: depuis quelques annés le Duc a commencé une ville neufue qui l'agradira de beaucoup plus qu'elle n'est maintenant grande, quelques rues sont déjà basties, et plusieurs monastères et maisons comencées: et il y aparoist déjà deux bastions fort avancées, non encore revetus: a l'entré y a un portail très beau, ou est écrite une inscription latine

concernat le mariage du Prince avec Madame fille de France.
 . . . Le Palais de son altesse qui si tient avec le logis de Madame, ceux des Princes et Infantes, sont d'une très grande estendue sans règle de bastiment ny d'architecture: y a une facade avec forces statues, celles de Madame et du Prince et d'autres vis á vis de la place qui est tres belle, ce la est digne d'estre veu. Ce qui est le plus beau c'est la gallerie de son altesse: en plancher sont les signes et autres choses celestes: la généalogie des Ducs de Savoye y est en des grands tableaux tout au long: . . . on il y a plus de trente mil volumes de livres tant manuscripts qu' imprimées, disposez par ordre selon les matières: dessus lesdites armoires sont des antiques de marbre tres excellentes: y a aussi les testes de plusieurs Empereurs. . . ."

28. P. Du Val, Le voyage et la description d'Italie, Paris, 1656, 59-63.

". . . Turin, Augusta Taurinorum, est la ville capitale de tout le pays, le séjour des Ducs de Savoye, qui en ont fait la residence de leur Sénat et de leur Chambre des Comptes, et qui l'ont rendue l'une des plus jolie et des plus fortes de toute l'Italie; elle est double, vieille et nouvelle ceinte des grands bastions Royaux et de murailles toutes neuves, avec des dehors qui sont revêtus. . . .Entre ces beaux édifices on remarque ces places Royales avec des allées couvertes et remplies de marchands et d'artisans de toute sorte: on remarque aussi une Tour magnifique, eslevée au milieu de la ville. . . ."

29. John Ray, Travels through the Low Countries, Germany, Italy, and France, with various observations, natural, topographical, moral, physiological, etc., also a catalogue of plants, to which is added an account of the travels of Francis Willoughby, Esq. through great parts of Spain, 2 vols., London, 1738 (second edition), 212-214, in Turin on March 14, 1664.

". . . Turin . . . is no large city, but, by reason the duke of Savoy normally keeps his court there, frequent and populous. The ancient buildings are not better than those of our english towns, but there is one long street of new buildings, tall and uniform; and about the midst of it a large square piazza, having on each side a fair cloister, very handsome and sightly. At one end of this street is another piazza before the Duke's residence, a fair building but not yet finished."

30. M. de Monconys, Journal des voyages, 2 vols., Lyon, 1666, v. II, 496, Turin in July 1664.

". . . Le 28 je fus me promenes par la ville qui n'a rien de beau que ce qu'on nomme la neuve, qui consiste à une grande place; á un bout de laquelle est le Palais neuf qui est une assez grande fassade plein de fenêtres, d'une architecture assez médiocre; une

grandissime basse-cour devant, qui est fermée par une muraille qui soustient une terrasse, et a plusieurs portes et arcades qui regardent la place; sur cette muraille sont des figures des Ducs de Savoye; à l'autre bout est une belle, longue et large rue bastie nouvellement des maisons blanches et semblables, à une des costez de cette place est le vieil chasteau ou logeroit feu Madame Royale; et les autres costez sont bastis aussi de nouveau avec des portiques couverts ou sont les boutiques. . . ."

31. Richard Lassels, A Voyage of Italy, or a complete journey through Italy in two parts, 2 vols., Paris, 1670, v. I, 72-79.
 ". . . As for the town itself of Turin its almost square, and hath four gates in it, a strong citadel with five bastions to it; its well furnished with good provisions in the market, it stands in a fat soyle, which makes it a little too durty in winter. . . . The Dukes new Pallace handsomely built with a fair court before it . . . the old long gallery 100 paces long, with the pictures in it of the Princes and Princesses of the house of Savoy, with the statues of the ancient emperors and philosophers in marble, with a rare library locked in great cubbords. . . . The new street which runeth from the Pallace to the Piazza Reale is a fair street and built uniformly. The shops below afford great conveniency to the townes men, and the fair lodgings above to the noblemen and courtiers. The Piazza Reale is built uniformly upon Pillars, like our Covent Garden, and is full of nothing els but noblemens houses."
32. Maximilien Misson, Nouveau voyage d'Italie, fait en l'annee 1688, avec une mémoire contenant des avis utiles à ceux qui voudront faire le mesme voyage, 2 vols., The Hague, 1691, v. II, 212-214.
 ". . . L'ancienne partie de Turin n'est que médiocrement belle: mais la nouvelle moitié est toute autrement bastie. Les rues en sont larges, et droites à la ligne; les maisons grandes, hautes et presque toutes uniformes. Rien n'est si beau que la rue que traverse les deux places et qui va du Chasteau à la porte neuve. L'une et l'autre de ces places sont grandes et de figure regulière; mais la nouvelle est environnée des maisons, qui font une symmetri parfaite; et un large portique regne tout autour. Quoy que la ville ait esté accreue sous le dernier Duc, de près d'une moitié, elle n'est encore que du fort mediocre grandeur. Ce mesme Prince l'environna d'une fortification regulière, et bien revestue."
33. G. B. Pacichelli, Memorie de' viaggi per l'Europa christiana, 4 vols., Naples, 1685, v. III, 504-26.
 ". . . Divides' in Citta' Vecchia e Nuova, chiuse ambedue con mura, e fortificazioni ordinate dove magnifici sono i palazzi, comode le case, e le anime si stima che arrivino ad ottantamila. Chiunque ci entra di Germania, di Spagna, o di Francia, riman

stupefatto a vederla. Nella Citta' Nuova convien guardare di primo lancio il Real Palazzo in una piazza grande, che trattiene militie a piedi, e a cavallo ed e colmo spesso di carrozze degli ufficiali. . . .

Quindi, nel cominciamento appunto della Citta' Nuova, si puo transferir chi e curioso al nuovo palazzo, che merita di esser numerato fra' piu illustri d'Italia. A quattro torri si uniscono altrettanti vasti corpi di fabrica che formano un ampio cortile, mostrando sovra i portici e le colonne della facciata una galleria con balaustrata. . . .

Vien separata la citta' nuova dalla vecchia, da due piazze grandi massimamente le Reale, colme di palazzi, in vece di semplici habitations sostenuti da'portici, per comodo de'passeggi. Si entra per lunga strada, che forma il corpo vaghissimo, e maggior della Nuova dal Palazzo nelle medesime, una delle quali contien la chiesa de'Dominicani frequentatissima con centinaia di carrozze bellissime. Ivi siede il Tribunal dell'Inquisitione. Vanno a perir cola le vie primarie della Vecchia, scoprendo nel mercato grande il palazzo del magistrato fabricato da poco tempo in qua. . . ."

34. J. G. Keyssler, Neueste Reisen, durch Deutchland, Bohmen, Ungarn, die Schweiz. Italien und Lothringen, 2 vols., Hanover, 1751, (second edition), v. I, 219-227.
 ". . . Aus dem Thore des koniglichen Schlosses sieht man uber den Schlossplatz und la Place de St. Charles durch die Rue neuve zur Porte Neuve ein tausend und sieben hundert gemeine Schritte in gerade Linie hinaus.
 . . .Die neue Strasse ist achzehn Schritte breit, die Hauser vier Stockwerke hoch. . . . Der berühmte Baumeister Bernini voll gestanden haben das diese Strasse ihre Gleichen in Italien nicht habe."
35. M. Cochin, Voyage d'Italie, ou recueil de notes sur les ouvrages de peinture et de sculpture qu'on voit dans les principales villes d'Italie, 3 vols., Paris, 1758, v. I, 3-31.
 ". . . Cette ville, quoique petite, presente un aspect fort agréable dans son interieur. Le rues en sont tirées au cordeau, et presque partout decorées de batimens semblables des deux cotés. On y remarque entr'autres la rue du Po, qui est fort large. Aux deux cotés de cette rue regnent de grands portiques a arcades, dont les dessous donnent une voie tres-large et fort commode aux gens de pied. Si quelque chose semble diminuer l'agrément de cette grande et belle rue c'est que n'etant point parallèle avec les autres rues voisines celles qui y aboutissent n'y entrant pas a angle droit et que d'ailleurs les batimens semblables qui regnent de part et d'autre paroissent un peu trop bas pour la largeur de la rue: mais cela peut avoir été menagé exprès, afin de ne point ôter le jour aux boutiques pratiquées

sous les portiques, et qui en effet sont fort claires. . . . La principale place de cette ville, nommée la place de S. Carlo est fort vaste et deux de ses côtés sont décorées des portiques à arcades, dont les archivoltes sont portés par des colonnes groupées. La continuité de ces arcs, dans que vien decore le milieu plus que les autres parties, a quelque chose d'insipide. L'entrée des maisons est un atrio ou vestibule sous la porte cochère, décoré de colonnes et de pilastres et enrichi de quantité d'ornemens. Sous ce vestibule est le grand escalier. Le fond de la cour, qui se voit de la rue, est toujours décoré d'architecture, le plus souvent dans un goût théâtral. Cet atrio donne la commodité de descendre de carrosse à couvert, et dans un lieu orné. Il en résulte un autre avantage. Toute la décoration est sur la rue, ou contraire de ce qui est en usage à Paris, où presque tous les beaux hôtels sont au fond d'une cour, et ne contribuent point, ou très peu, à l'embellissement de la ville."

36. J. J. de La Lande, Voyage en Italie, fait dans les années 1765 et 1766, 8 vols., Paris, 1769, v. I, 46-253.

". . . Les dix places qu'il y a à Turin et toutes les rues de la ville sont d'une régularité et d'un alignement qui fait le plus beau spectacle qu'on puisse voir; trente-deux rues qui se croisent à angles droits partagent la ville en cent quarante-cinq petites îles ou quarrés qui ont cinquante toises de longueur, plus ou moins, et qui portent ordinairement le nom d'un Saint; on ne désigne guères les adresses par le nom des rues mais par celui de ce Saint.

. . . La rue du Po est une des plus belles rues qu'il y ait au monde, elle est droite, large, uniforme, garnie des deux rangs de portiques couverts.

. . . Palazzo Reale, le Palais du Roi, fut fait dans le dernier siècle sous Charles Emmanuel II. Il est bâti en pierres et en briques. On y entre par une grande cour carrée environnée de portiques réguliers, d'ailleurs il n'a aucune décoration extérieure; mais il ne seroit pas impossible de l'embellir.

. . . La place St. Charles, ou place d'armes, est tout près de celle de Carignan, et partagée par le milieu la Contrada Nuova qui est en face du Palais, cette place est la plus belle de Turin après celle du château, elle est entourée de portiques et de bâtiments uniformes, comme la place royale à Paris, mais d'une architecture moderne, avec des colonnes toscanes. Les maisons de cette place ont presque toutes, au pied de l'escalier, un vestibule richement décoré, et sur la façade une très ornée ce qui réunit et l'agrément et la beauté avec la commodité des portiques. Cette place sert non seulement à la parade, ou exercice militaire, mais encore au marché du ris, du blé, des légumes, du bois et du charbon."

37. M. l'Abbé Richard, Description historique et critique de l'Italie, 3 vols., Dijon, 1766, v. I, 33-91.
 "... La ville est divisée en 145 îles ou petites quartiers, dont le nom est écrit sur les angles de chacun, la plus grande partie de ces quartiers sont carrés, ce qui contribue à la distribution régulière de Turin, à la beauté et l'alignement de ces rues, à l'entendue des différents points de vue, et à l'agrément général de la ville, cette distribution est remarquable surtout dans le nouveau Turin c'est-à-dire, dans cette partie de la ville qui avoisine la porte du Po et la porte neuve jusqu'à l'esplanade intérieure de la citadelle. . . .
 . . . La rue du Po qui va du quartier du palais jusqu'à la porte du même nom est la plus belle et la plus large de Turin; elle est bâtie d'une manière uniforme, les maisons qui la bordent sont belles, elles ne paroissent pas élevées pour leur grandeur mais la largeur de la rue en est cause. . . .
 . . . La place S. Charles est la plus régulière de Turin, la forme est un carré long, décoré, dans sa longueur par des portiques à arcades, soutenues par des colonnes groupées. . . .
 . . . Les rues de cette partie de la ville sont toutes belles et larges, tirées à ligne droite, les bâtiments de même hauteur et d'une richesse frappante. . . ."
38. Th. Nugent, The grand tour, or a journey through the Netherlands, Germany, Italy and France, 4 vols., London, 1778, v. III, 170-174.
 "... It is one of the finest cities in Italy for the magnificence of its buildings, the beauty of its streets and squares, the number and sociable temper of its inhabitants, and for all the conveniences of life. The town is of a square figure, about three miles in circumference, and fortified as well as the nature of the ground would permit. . . . The streets are broad and straight, the houses large, high and almost all uniform, they appear to be of stone but are most of them only of plastered brick. The street that reaches from the castle to the new gate is very beautiful, it crosses two open fine piazza's of regular figure one of which called Piazza Reale is surrounded with houses exactly uniform, with a large portico all around it like that of Covent Garden."
 M. Grosley, New Observations on Italy and its inhabitants, written in French by two Swedish gentlemen translated into English by Th. Nugent, 2 vols., London, 1679, v. I, 41-54.
 "... Yet, on a particular view of each of these objects (buildings and streets), the eye is offended at the strangeness of the architecture. These edifices being awkward masses, with parts which seem to hit against one another, and what at first attracts notice, is soon turned into disgust."

39. Charles de Brosses, Lettres historiques et critiques sur l'Italie, 3 vols., Paris, 1793, v. III, 382-398.
40. Ibid.
". . . Turin me paroît la plus jolie ville de l'Italie, et, à ce que je crois, de l'Europe, par l'alignement de ses rues, la régularité de ses batiments et la beauté de ses places dont la plus neuve est entourée de portiques. Il est vrai que l'on n'y trouve plus, ou de moins rarement, ce grand gout d'architecture qui regere dans quelques endroits des autres villes; mais aussi on n'y a pas le désagrément d'y voir des chaumieres à coté de palais. Ici, rien n'est fort beau, mais tout y est egal: rien n'est médiocre, ce qui forme un total, petit à la vérité (car la ville est petite), mais charmant."
41. G. G. Craveri, Guida de'Forestieri per la real citta di Torino, Turin, 1753.
42. Théâtre des Etats de son altesse Royale le Duc de Savoye, Prince de Piémont, Roy de Cypre . . ., 2 vols., The Hague, 1700.
43. Onorato Derossi, Nuova guida per la città di Torino, Turin, 1781. The author admitted that the description of Turin was drawn largely from the geographic dictionary by Galeazzi published in 1778 in Milan.
44. J. R. Hale, Renaissance Fortification: Art or Engineering?, London, 1977.
Elsewhere, Hale has discussed the growing social status of military architects simultaneously with the growing appreciation of mathematics.
45. The military works of Michele Sanmichele were as numerous and stylistically as advanced as his civic buildings. See Camillo Semenzato, "Michele Sanmichele, Architetto Militare," Michele Sanmichele, IV centenario della morte, Verona, 1960 and E. Langenskold, Michele Sanmichele, the architect of Verona, Uppsala, 1938.
46. H. de la Croix, "Military Architecture and the Radial City Plan in Sixteenth Century Italy," Art Bulletin, 1960, 42:263-90. The separation was neither complete nor final, as argued by Hale, and in this introduction.

47. Carlo Promis, "Gli Ingegneri Italiani che Operarono o Scrissero in Piemonte dal 1300 al 1650," Miscellanea di Storia Italiana, Turin, 1871, 12:411-646, also by Promis, "Biografie di Ingegneri Militari Italiani dal Secolo XIV alla Meta' del XVIII," Miscellanea di Storia Italiana, Turin, 1874, 14:1-858. Promis' extensive writing was based upon the research of a team of assistants.
48. E. Guidoni and A. M. Guidoni Storia dell'urbanistica: Il Cinquecento, Bari, 1982, and by the same authors, Storia dell'urbanistica: Il Seicento, Bari, 1979, see also A. M. Guidoni, "L'Architetto e la Fortezza," in Storia dell'arte italiana: Momenti di architettura, Turin, 1983, v. 5, 49-99.
49. Emilio Rocchi, Le fonti storiche dell'architettura militare, Rome, 1908. Rocchi emphasized the importance of artillery and the changes it brought about in fortification design.
50. See note to the Introduction, 19.
51. Georg Munter, "Die Geschichte des Idealstadt," Stadtebau, 1929, 9:249-56, 12:317-40, Susan Lang, "The Ideal City," Architectural Review, 1952, 112:91-101, Gerhard Eimer, Die Stadtplanung in Schwedischen Ostseereich 1600-1715, Mit Beitragen zur Geschichte der Idealstadt, Stockholm, 1961.
52. The treatises by Serlio, Palladio and Scamozzi, to name only three of the more influential texts, contained sections on city planning and urban design.
53. J. R. Hale, "Printing and Military Culture of Renaissance Venice," Medievalia et Humanistica, Clogan, ed., Cambridge, 1977, 21-62.
54. M. J. D. Cockle, A bibliography of military books up to 1642, London (1900), 1957. Entries 1-166 refer to English works, 500-950 refer to foreign-language works. The arrangement of the entries is chronological.
55. Hale, note 53.

56. The title of the original Latin edition is Theatrum Staatum, Sabaudiae Duci, Pedemontii Principis, Cyprus Regis, etc. . . ., 2 vols., 1682.

The lavish publication illustrated the cities and towns of Piedmont and Savoy, and was at least partially intended to celebrate the completion of Turin's expansions.

CHAPTER II

CITTA' NUOVA: THE SOUTHERN EXPANSION

This chapter discusses the chronology of the Citta Nuova expansion which took place in Turin between 1619-1637. Although the Duke Carlo Emanuele I had sponsored several urban design projects between 1580-1615, it was not until he was presented with a political catalyst in the form of the marriage of his son to a French princess that the major effort for the development of Turin began. The expansion had been considered periodically between 1580-1600, and then with new design directions after 1612. Enlargement to the east and south favored in the planning studies would have altered Turin's perimeter from a square castrum to a nearly perfect oval form. Due to financial restraints, demographic changes and military requirements, only the southern expansion was commenced. The completion of this modest part of the originally envisioned expansion occupied the reigns of two dukes and one regent (1619-1648). Since the extension was subsidized largely by the crown, that willed it into being, the major credit goes to the succeeding members of the House of Savoy who pursued its completion. They were intent on making Turin an important capital, worthy of their dynastic and political claims.

The enlargement to the south increased Turin's territory by about 60 percent, while lengthening its perimeter by only about 15

percent, which demonstrates the ability of the ducal engineers and designers, since the major capital expense of the expansion was the construction of the fortification belt. Furthermore, since the area of land enclosed was proportionately greater than the increase in the fortification perimeter, the much enlarged town could be defended with a numerically unchanged garrison.

On March 15, 1620 Maria Cristina of France, second daughter of Henri IV and bride of Vittorio Amedeo, Prince of Piedmont and heir to the duchy of Savoy, made her triumphal entry into Turin.¹ Preparation for her entry had been considerable and was started one year before her arrival. The couple had been married in Paris in February 1619, after the negotiated matrimony of January 1619 by Cardinal Maurizio of Savoy, the bridegroom's brother. The wedding party soon left Paris and traveled towards Savoy where it was received with as much pomp as could be mustered in Chambery.²

Increased numbers of courtiers and family members joined the newlyweds as they approached Piedmont at whose borders they were welcomed by Duke Carlo Emanuele I. His letters to the groom, his heir, show the importance of the reception, while the personal care taken by the duke to help provide the necessities as well as the luxuries illustrate the human concern of the ducal family's preoccupations.³ The couple reached Chieri in December 1619, and they remained there until their official entry into Turin. Their stay was animated by numerous festivities and occasional sallies incognito into Turin, which gave the princess opportunity to satisfy

her intense curiosity about her new city.⁴ There was not much there to satisfy curiosity.

An image of Turin of 1619 can be derived through an analysis of achievements of the early seventeenth century in urban design super-imposed upon the drawings of 1583 by Richettino and Caracha (Plate 2).⁵ The three-dimensional illustration represents Turin as a Roman castrum with the pentagonal fortress of 1563 at its southwest corner with the other three corners reinforced by sixteenth-century bastions. Another bastion fortified the castle at the center of the eastern wall and flanked the main eastern gate which led to the bridge over the Po. The castle was connected through a two-story gallery to a compound of ducal buildings in the northeast corner of the city.⁶ The walls were largely the original Roman construction of brick since the Acaja lords had limited themselves to the enlargement of the castle and the maintenance of the ancient fortifications, and the French built only the bastions at the four corners of the castrum. In Richettino and Caracha's illustration the square towers of the Roman enclosure are still standing. The north and west gates, also of brick, had three arched openings flanked by round or octagonal towers. The orthogonal street grid had been largely maintained, although some erosion had taken place in the northeast quadrant of the city, in the area between the cathedral and the city hall.

The gallery, first shown in the Richettino and Caracha view, had thirty-two arcaded bays at the ground level and an equal number of

windows on the floor above. The roof served as a rampart. The gallery housed the extensive art collection, the library, and the archive of Duke Carlo Emanuele I.⁷ The gallery also played an important role in the family life and education of the children of Carlo Emanuele I.⁸ The building combined urban and rural characteristics. It contained the most precious and sophisticated possessions of the court while being a part of the city's fortification enclosure. On the side facing Turin it defined the open space flanked also by the ducal palaces, and connected two important buildings. The side facing into the country was open, allowing contemplation of the hills and of the Po river.

While precedents for such structures existed at least as far back as the building of the Belvedere court by Bramante, the enclosed gallery at the edge of town, using the countryside beside the town as though it were a controlled landscape, was a relatively recent building type.⁹ One such gallery was built by Vincenzo Scamozzi in Sabbioneta; the town planned ex-novo for the dukes of Gonzaga.¹⁰ The palatial compound of Turin of which the gallery was only a wing was not a cohesive group of buildings. Rather, it was still an assemblage of various structures renovated to house the ducal family.¹¹ There were strong intentions to unify this area. The major testimony is given by a drawing of 1605 by an otherwise unknown architect signed Monsa (Plate 6).¹² Although not an official project, this drawing contains the major design ideas that were being discussed and studied by the ducal architects, and were soon to be

realized.

The urban elements of the design were Piazza Castello and a new street to the south. The redesign of Piazza Castello consisted of the definition of the urban space through uniform facades, a rebuilt ducal palace, and demolition of the structures that remained in the middle of the square. The arcades around the square were built for the celebration in 1608 of the marriage of two daughters of the duke.¹³ In 1612 an edict was promulgated obliging the landowners around the square to build above these arcades, thus connecting them to their houses, or to sell their property to those who would comply with the ducal order.

A street connecting Piazza Castello to a new southern gate, to be opened next to the bastion (S. Margherita) in the southeast corner of the city, was cut in 1615. The design for the uniform facades built in front of the dismembered structures was provided by Ascanio Vitozzi, the chief architect of the duke. This street was aligned with the main portal of the newly rebuilt ducal palace, also designed by Vitozzi.¹⁴ There were two other major urban spaces: an irregular one in front of the cathedral, and a rectangular one in front of the Palazzo di Citta. Monsa's drawing shows only the eastern edge of Turin upon which the ducal building program was concentrated in the first twenty years of the seventeenth century. The view by Richettino and Caracha illustrates the rest of Turin as well. It consisted largely of 2-3 story buildings. Little distinction was made between the residential and commercial functions, but the

location of some religious and civic institutions was signaled by their bell-towers.¹⁵

We have seen in outline the physical aspect of Turin in 1619 when the new princess was expected to arrive. The matrimony, like the wedding of the Savoy princesses in 1608, was the catalyst for new construction. The expansion of Turin was begun in 1619 by Carlo Emanuele I. A major element built for the ceremonial entry was a new gate. As mentioned above, the opening itself was of recent date, at the termination of the south street opened in 1615. The importance of this triumphal gate was in its duplication. One gate stood at the end of the new south street, while another was built on axis with this inner portal to mark the southern edge of the future expansion.¹⁶ For the reception of Cristina the outer gate was built of wood and canvas as was customary for state entries, theatre, and temporary structures.

An accurate description of this ephemeral gate, eventually to be built of solid materials, can be found in the contracts that the city council made with the stone cutters who undertook to build it. In contrast with the city walls which were the property and the concern of the ruling duke, the gates were under the jurisdiction of the city council. The council's minutes show the conflict between the duke and the city fathers over the design and the construction of the gate. Since the payments did not come from the ducal treasury, the duke demanded a sumptuous marble gate. The council challenged his demand and lost. The gate was finished in 1621, built of stone and

decorated with the number of statues desired by the duke.¹⁷ The design for the gate was prepared by Vitozzi, or perhaps by his assistant Carlo di Castellamonte who monitored the construction.

Traditionally gates were the only part of a town's fortification to receive extensive architectural ornament, as though to compensate for their inherent weakness through lavish decoration. The walls of the fortification had at best a decorative cornice or parapet.¹⁸ The gate was a support for the inscriptions and statues placed upon it which stated the claims of the House of Savoy. The message included Carlo Emanuele I's pretention to title and heritage, imagined and actual relation between the House of Savoy and the royal house of France, and current and future projects for expansion.¹⁹ For the ceremonial entry the southern gate was preceded by a triumphal arch. The road between the arch and the outer southern gate was flanked by statues representing the major regions and towns of the duchy. Most importantly, the gate served symbolically as the foundation stone for the expansion toward the south. It provided the expansion project the impetus and the credibility necessary for the actual start.

According to the description of the event in the minutes of the city council, the facades of Contrada Nuova and of Piazza Castello were already completed. The facade of the old ducal palace had been also restored. Its numerous niches were filled for the occasion with statues. The palace gate was flanked by eight statues of emperors; the Castello gate was flanked by two statues of emperors, as well as statues representing Charles V and Emanuele Filiberto of Savoy. Many

other statues were placed above the Castello. Although not reliable for an appraisal of the quality of the objects displayed, the minutes of the city council may represent accurately the number of statues employed.²⁰ The display of sculpture gives a hint of the extensive collection owned by Carlo Emanuele I, as well as the rich, stage-like effect intended for the outdoor festivities.²¹

The sequence of enclosures that the princely couple passed through had become the traditional objects of a possesso procession:²² a triumphal arch holding the family claims, a road flanked by the representation of the family properties, a first outer gate surrounded by patron saints, a second gate displaying the images of famed family ancestors. The city fathers welcomed the Prince of Piedmont and his bride under a baldachin at the inner gate conferring upon them the keys to the city, and the archbishop blessed their union in the cathedral. Passing through the uniform and vividly decorated Contrada Nuova the procession arrived at the well-defined Piazza Castello which resembled, with its statues and tapestries, an outdoor salone. The passage was one from the multitude of the accompanying Piedmont militia, about 25,000 foot soldiers, to the 3,000 cavalrymen who received the procession at the outer gate, to the twelve pages accorded to the princess at the inner gate.²³ The decreasing number of participants parallel accurately the tightening of the space around the procession before it opened up again at the royal square, a semi-private outdoor room enjoyed by a select company.

The reception given by the city and the court was elaborate and large.²⁴ Cristina had waited for three and one-half months for her formal entry into Turin. Final payments for the outer gate were not made until January 1621 when construction was complete.²⁵ Most likely Cristina had to wait so that the entire reception could be orchestrated even though the architectural part was not yet completed at the date of her entry. The presence of the Princess of Piedmont waiting in Chieri must have acted, nonetheless, as pressure on the city council, and on all involved in construction. The completion of the buildings around Piazza Castello and along the Contrada Nuova also received immediate motivation for a quickened pace.²⁶

While the building of the gate was prompted by the entry of Cristina, there were several urban improvement projects begun in 1619 which may have added to the impetus necessary to begin the expansion officially, but which can be considered separately from the enlargement process. These projects include an order to repair and pave all city streets, and the opening of a new street between Piazza Castello and a market place to the west, in front of the Palazzo di Citta', begun in July 1619.²⁷ Given these simultaneous improvement and building projects, the eastern portion of Turin probably felt like a huge construction site feverishly being prepared for the arrival of its future rulers.

The expansion and the embellishment of Turin had been a concern of Carlo Emanuele I ever since he inherited the title and the duchy. An ambitious ruler, his main interest was the enlargement of his

realm at the expense of his neighbors, an attitude which involved him in nearly continuous wars during his long reign.²⁸ He had a keen appreciation of painting, sculpture and architecture, and was an avid collector. As seen above, Carlo Emanuele I had accumulated a sizeable quantity of copies of Roman sculpture. Contemporary witnesses wrote of the gallery between the Castello and the ducal palace that was filled with paintings, books, and objets d'art. Inventories of the ducal villas and of the ducal library from the 1630s and 1650s help in understanding the actual holdings of the crown. Since Vittorio Amedeo I did not have time to collect during his short reign, and Cristina was occupied by the civil war and the political intrigue of her brothers-in-law, it can be assumed that most of the objects listed in the inventories had been acquired by Carlo Emanuele I.²⁹ His collection had been initiated by Emanuele Filiberto who amassed the invaluable nucleus of the library, well-stocked with foreign language manuscripts and printed books, particularly on military subjects.³⁰

Although the expansion projects may have been discussed as early as 1584 at the arrival of Vitozzi, wars and intrigues occupied Carlo Emanuele I. His children were not able to help him until the mid-1610s since they were part of the time in the service of the Spanish king. During his entire reign Carlo Emanuele I oscillated in his allegiance between the Spanish and the French kings.³¹ He had inherited the former connection from Emanuele Filiberto, his father, who had served in the imperial army, but then married a French

princess, while Carlo Emanuele I married a Spanish Infanta.³² Carlo Emanuele I allowed his son Emanuele Filiberto to become a viceroy of the Spanish government in Sicily, while his heir Vittorio Amedeo married a French princess, and Cardinal Maurizio served French interests at the papal court in Rome.³³ These split loyalties may have influenced Carlo Emanuele I in the images chosen as models for the urban development of Turin. His architect Vitozzi had traveled extensively, had lived in Rome, and was acquainted with Spanish and Flemish urban design.³⁴

In Piedmont, in the immediate surroundings of Turin, there were only a few lessons to be learned in urban design. Saluzzo, which did not belong to the duchy but to which the duke felt entitled, had been the subject of civic improvement in the last quarter of the sixteenth century. The resulting two-block long street, straight and with uniform facades, may have provided the idea for the Contrada Nuova. The dominant urban characteristic of Piedmontese towns was the arcade with the low, flat vaults which defined the major streets and squares. These arcades had only a generic uniformity about them, such as in Carignano, Carmagnola, and Chivasso, rather than a preconceived and rigidly applied design. They seem to have been built together with the structures behind them, which extend to the area above the arcade. The resulting spaces are not uniform, but the arcades, usually whitewashed and with thick piers, provide a continuity that transcends the lack of rigorous architectural uniformity. These towns south of Turin were surely well-known to

Carlo Emanuele I.

The duke's ideas regarding urban embellishment were made manifest as early as 1584 when he promulgated an edict ordering all those who owned property adjacent to an owner who wanted to expand his building to sell upon request, thus encouraging and rewarding the initiatives of wealthier citizens.³⁵ The stated intentions for the expansion of Turin were: to enlarge the town whose population had grown since the return of the Dukes of Savoy, the embellishment of Citta Vecchia, and to attract religious orders which would help in the spiritual control of a population with strong Protestant tendencies.³⁶

The expansion south took place first because it could be defended by the citadel, and because much of the land in the area was owned by the crown. The desire for new religious institutions was strongly felt by Carlo Emanuele I who wanted to fight the heresy that was spreading through the valleys surrounding Turin. His simultaneous competition with the French and the Spanish crowns, the most Christian and the most Catholic kings, respectively, further strengthened his need to shine in the field of Roman-Catholic crusading.³⁷ Carlo Emanuele I encouraged several orders of monks and nuns to settle in Turin, socially and economically a naive gesture, since the mendicant orders were to exacerbate the problem of beggars in Turin.³⁸

The embellishment of the city was to occur through reduced crowding and the redistribution of markets. The removal of the

market from the Città Vecchia greatly angered the city council and the guilds, who tried to prevent the privileges granted to new settlers in the Città Nuova. As late as 1628 the city council contested the market rights conceded to settlers of Città Nuova in 1621.³⁹

The actual enlargement had begun in 1619, with the ceremonial construction built in honor of Cristina's arrival. New settlers were attracted by a naturalization act of August 1621.⁴⁰ Among the privileges granted were citizenship, freedom from military service for three generations, freedom from old debts, right to manufacture and sell without belonging to a guild, market privileges in the Piazza di Contrada di S. Carlo, freedom from real estate taxes for twenty-five years, all fines bearing on those who built in the Città Nuova were abolished, exiles from other states were granted safe-conduct if not guilty of lèse-majesté.

Other edicts from 1621 point to actual problems faced in the construction of the new city.⁴¹ The large scale, institutionalized production of building materials was directed toward supplying the construction of fortifications. Consequently, there resulted a shortage of building materials: lime, brick, and wood. Thus, the crown was forced to intervene and officially fix prices and measurements in order to avoid rampant speculation. In October 1621 license to manufacture building materials on the construction site was granted to all builders. A parallel problem was illustrated in the edict of July 1624 which forbade the excavation of sand and

quarrying of stone in the Citta' Nuova except on private property.⁴² The edicts show that there was a great deal of usurpation of ducal building projects. The edicts also give an indication of the state of the works: Digging for sand and stone was allowed on the site of the future moats but these sites were still to be designated by the engineer Carlo di Castellamonte. Customarily, the moats were dug simultaneously with the construction of the walls using the excavated material from the former for the raising of the latter. Thus, it is clear that after four years, construction had not advanced very far.

As seen above the city was obliged to pay for the gates, while the walls and bastions were paid for by the ducal treasury. In order to speed the building process, in May 1621 Carlo Emanuele I promulgated an edict taxing all extraordinary income. The tax was earmarked for the building of the Sindone chapel, and the enlargement and embellishment of Turin.⁴³ The Citta' Nuova expansion provided impetus for the rehabilitation of the old part of town. In May 1622 the crown ceded a site in front of the cathedral and a number of marble columns for building the residence of the pages.⁴⁴ The site and the building materials were given to a contractor, while the design was provided by Carlo di Castellamonte. As in other construction projects in the Roman part of Turin, demolition had to take place before the new construction could begin.

On March 20, 1621 Carlo Emanuele I established a magistrato delle fabbriche whose mandate was to supervise the construction of ducal buildings as well as to control the quality of private

construction.⁴⁵ The magistrato delle fabbriche replaced individual building intendants and unified the administration for the construction of ducal projects. The agency approved the design for streets and houses in Turin, accepted bids and made contracts for buildings and fortification construction subsidized by the crown, supervised construction, and set prices of building materials.

The first group of councillors was appointed in the original edict. They were the Count of Sanfront; Count Valdengo; the notaries, Nicolis, Lodi, and Precipia; the engineers, Carlo di Castellamonte and Carlo Vanelli; the auditor, Gabetti; the treasurer of the ducal household, Isoardi; the captain, de'Marchi; and the superintendent, Vugliengo. With the secretary and the president there were thirteen members in the first council which met weekly in the ducal palace.⁴⁶ The edict required that detailed reports be made by individual superintendents in the field, written and verbal, and outlined the manner in which payments were to be handled.

While the design and the regulations were to emanate from the crown, the magistrato delle fabbriche was to see to their faithful execution. If difficulties occurred in the implementation, the final decisions were made by the president of the council.⁴⁷ The foundation of this agency was among the first attempts of the dukes of Savoy to centralize and to homogenize the building industry. Through it the system of contracts and payments was standardized and immediate responsibility removed from the duke. The individual status of the magistrato delle fabbriche councillors was quite high.

The engineers were members of local aristocratic families, as were members of the Senate, while the managerial group was from the trained lower-ranking nobility, whose penury had forced it into law or medicine. There was constant communication between the duke and the building council. The duke passed down his decisions through Sanfront or Carlo di Castellamonte, more the latter since Sanfront was also governor in Savigliano between 1619-1622.⁴⁸ The agency maintained relations with the city council, whose meetings they occasionally attended. Often, the city council sent representatives directly to court to complain about the sums requested from the city for building projects.⁴⁹ Carlo di Castellamonte was a much appreciated intermediary between the city council and the magistrato delle fabbriche.⁵⁰

The magistrato was required to maintain a complete archive. The minutes recorded almost verbatim the weekly council meetings. The standardized format included a regulatory introduction consisting of roll call, left-over business, new business and problems, as well as the place of the meeting.⁵¹ Separate records of payments were kept by treasurers.⁵² The ducal orders were registered with the minutes of the meeting, as were bids and contracts. The conclusion of the meetings were transmitted to the duke verbally by a representative. There is an extensive correspondence between the ruling sovereign and the secretary of the magistrato delle fabbriche.⁵³ The councillors traveled at length within the duchy visiting the construction sites, and attended the endless council meetings.

The implementation of the 'Citta' Nuova expansion took place in three stages, each connected with a sovereign:

the 1619-30 campaign sponsored by Carlo Emanuele I,

the 1632-37 campaign carried out by Vittorio Amedeo I,

the 1637-48 campaign completed by the regent Cristina.

The major aims of the original campaign were to expand to the south and towards the Po, to fortify the new and old parts of Turin, and to lay out an orthogonal street plan. Its secondary aims were to attract a large number of religious institutions to settle in the expansion areas of Turin, and to increase the population of the city through various building incentives.⁵⁴ Although the foundation stone was officially placed only in December of 1620, the fact that the duke intended to expand Turin was known by the beginning of 1619, the year in which construction of houses in the area commenced.⁵⁵ The expansion had been discussed for some time, as early as the turn of the century. In 1612 a payment had been made for a model and a drawing of the expansion plans.⁵⁶ From the extant drawings it is clear that originally expansion was considered in all directions (Plates 3, 4).⁵⁷

The earliest version of the development plans which led to the actual realization is an autographed drawing attributed to the duke or to his heir by a contemporary (Plate 7).⁵⁸ It is based upon an extant ink drawing showing the fortifications of Roman Turin and the citadel which was used as a template (Plate 5).⁵⁹ The proposed plan was to expand to the south and to the Po, with two alternatives

proposed for meeting the river. Sketched in charcoal are two radial streets connecting the Po gate to the castle and to the citadel, respectively. The citadel-Po connection occurs only in this drawing.⁶⁰

In a 1615-1619 drawing for the projected expansion, three indications clarify building types and functions (Plate 8).⁶¹ An entire building block had been set aside for the monastery of S. Carlo. The five blocks tangential to it have been parceled, three (east, southeast, and south) completely and two (southwest and west) partially. The two blocks that eventually became the east periphery of the expansion were also partially parceled. The lots imply previous construction, and residential buildings through their proportions. The two blocks at the western edge of the northern row, closest to the citadel and Citta' Vecchia, are marked "giardino." Unmarked lots east and south of S. Carlo, otherwise parceled and numbered, may well have been intended for churches, but the studies that can be attributed to Carlo Emanuele I's reign do not confirm it. Documentary sources list only four churches founded under Carlo Emanuele I's seventeenth-century reign: Crocetta, Cappuccini, Annunziata, and S. Carlo. Of these only S. Carlo is in the Citta' Nuova; the other three are outside the city's old and new boundaries. The parceling of the blocks indicates that along the principal street of the expansion area residential construction had begun, in contrast with the blocks near the citadel which were used as gardens or remained unoccupied.

Construction proceeded slowly. There were shortages of builders and of construction materials.⁶² An almost continuous state of war in the twenties resulted in lengthy absences of the duke from the city.⁶³ The more important architects and engineers, Carlo di Castellamonte, Ercole Negro di Sanfront, Carlo Morello, and Maurizio Valperga, were busy with the fortification of Piedmontese towns threatened by the wars of expansion fought by the duke. The crown reduced payments for the enlargement of Turin, and the city was generally impoverished.⁶⁴

As seen above, Carlo Emanuele I took an active interest in the physical planning of Turin. However, he was aided in this undertaking by a team of three planners and military engineers: Vitozzi, Carlo di Castellamonte, and Ercole Negro di Sanfront.

A descendant of the Braschi lords from Orvieto, Ascanio Vitozzi (1539-1615) was an architect, engineer, and military officer. He participated in the battle of Lepanto and in the conquest of Portugal with Phillip II. He probably studied architecture with Giacomo Barozzi, and between 1569-70 he conducted the damming of the Tiber in Rome.⁶⁵ He fought in Piedmont as captain of artillery, and in 1584 was nominated first court architect and engineer by the Duke of Savoy. Vitozzi made a crucially important contribution to the urbanism of Turin. His design of 1606 for the facades of Piazza Castello recalls a Piedmontese tradition of porticoed streets but applies it at the large scale of urban environment and for palatial residences. The facades of the Contrada Nuova, which was cut through

a crowded residential neighborhood, formed a uniform and straight street, axial with his earlier plans for Piazza Castello. These applications influenced later important city planning enterprises in Turin.⁶⁶

Belonging to the Cognengo branch of the counts of Castellamonte, Carlo di Castellamonte was ducal engineer (1615), member of the magistrato delle fabbriche (1621), superintendent of fortresses, councillor of state, and lieutenant of artillery (1637). He served as assistant to Vitozzi, whose work he largely implemented. He visited Rome briefly in 1605, perhaps to supervise the construction of the church commissioned by the confraternity of the Ss. Sudario. He also made a fundamental contribution to the urbanism of Turin, to the military landscape of Piedmont, and to the development of the local palace type. His role as liaison between the duke and the city council in matters of construction was greatly appreciated by both sides, and he received numerous ducal commissions and honors.⁶⁷ The architectural vocabulary inherited from Vitozzi, somewhat dry and static, was enlivened by Carlo di Castellamonte through the employment of palladian ideas. Although the Vitozzian lack of dynamism resulted in undistinguished single facades, it served well in large scale urban design. Castellamonte's achievement in urban design is his seamless blending of the seemingly contradictory objectives of city planning and fortification. His city planning was orderly, economical, and disciplined, the hallmarks of military architecture. His work of fortification had a strong aesthetic

component and exceeded his architectural concerns in the amount of time that he dedicated to it, and in its importance for the duchy. He was responsible for the rebuilding of Verrua, Momigliano, and Savigliano, three major but now destroyed fortresses.⁶⁸

The activity of Ercole di Sanfront is the least well documented of the three planners. Of Piedmontese origin (1541-1622), he served in the French army of Henri III before entering the service of Carlo Emanuele who ennobled him in 1589. An architect, engineer, and officer he became general of artillery in 1604, and then superintendent of artillery. Between 1600-1604 and 1619-1622, he was governor of Savigliano.⁶⁹ In the series of planning studies for the expansion of Turin, there are two alternatives for the expansion towards the Po, of which the smaller enclosure was consistently championed by Sanfront, and later by his assisant Morello.

Neither Castellamonte nor Sanfront seem to have had the normal professional training: study with an acknowledged master, acquaintance with the theoretical aspects of architecture, and residence in Rome, the last being equivalent with the knowledge of the monuments of antiquity. Carlo di Castellamonte had traveled to Rome where his stay was however brief, his theoretical training was sketchy, but he did have a master in Vitozzi.

Since Vitozzi's death predated the expansion of 1619, his contribution to the expansion is not direct. However, the urban projects designed by him and completed by Carlo di Castellamonte established a precedent which provided cues for the design of the

larger expansion. A drawing which can be considered the official plan for the expansion made between 1615-1619 is most likely by Castellamonte (Plate 8). The grid of orthogonal streets east and south of Roman Turin, while resulting in larger blocks, were derived from the grid of the original castrum layout.⁷⁰

The two alternatives for fortifications indicated near the Po bridge show disagreement between Castellamonte and Sanfront. Castellamonte advocated the larger enclosure and the trident of diagonal streets emanating from the Po gate towards the castle and the southern expansion area.⁷¹ Sanfront was aided by the engineer Carlo Morello, who also provided architectural designs for small ducal projects in Turin.⁷² Castellamonte was in turn assisted by Maurizio Valperga, especially in the construction of buildings in Citta' Nuova.⁷³

The official plan differed from the drawing attributed to Carlo Emanuele I in three particulars: in the larger area closed, a more continuous curved outline of the perimeter of the fortification, and a better designed connection between the south wall and the citadel.⁷⁴ A semicircular expansion to the north, enclosing little territory considering the large expense of three bastions was not practical and may be the remainder of "ideal city" planning ideas which had lost their prescriptive force by the time the expansion commenced.

There are two views of Turin which testify to the implementation achieved under the leadership of Carlo Emanuele I. The views are

from c. 1622 and c. 1630 (Plates 12, 13), thus neatly framing the first building stage. Both views were taken from a hill to the east of Turin, across the Po. The perimeter of Roman Turin is quite clear in both views. The earlier view taken from a greater distance includes only a suggestion of the citadel.⁷⁵ The southern expansion area has buildings flanking the road that leads to the city gate. The settlement seems irregular, streets are not visibly drawn, and the expansion could be mistaken for the traditional unplanned suburban development.⁷⁶

In the view of 1630 the street grid is still not clearly indicated.⁷⁷ The blocks are oriented north-south and are orthogonal to one another; they stand isolated from the grid of streets in Citta Vecchia, and the construction of the fortified wall has begun to engulf them. Two and one-half bastions have been built, and their terraces rise above the buildings of the city. Even though they are much lower than the Roman walls surrounding Citta' Vecchia, they blocked the view of the surrounding countryside and provided a visual boundary for the streets. The bastions were designed according to the latest innovations; they are low, wide, and separated from the fortification's curtain wall. There is a gate between the two full bastions, which had been part of the 1620 ceremonial wedding entry. But since the walls were not completed, the expansion areas remained undefended and vulnerable and thus difficult to populate.

Beside the open space in the defined blocks, there is a conspicuously large open space between the citadel and Citta' Nuova.

The area is not as large nor as defined as the open space between the citadel and Citta' Vecchia. Nonetheless, while the new expansion could be defended with the help of the citadel, the citadel could also defend itself against attack from Citta' Nuova through control of this sizable no-man's land.⁷⁸ The buildings shown are clustered in the two blocks flanking the main street that connects the two southern gates. Their height varied between one and three floors, and they seem undifferentiated in their function.

That the southern expansion was not considered a success and not acknowledged as an actual urban development can be gleaned from a view of Turin of 1628 (Plate 9), used as an illustration in the military treatise of Antoine de Ville.⁷⁹ In his preface, de Ville takes pride in having written from his personal experience, and from that of his brother, an officer in the army of the Duke of Savoy. From his career and the quality of the book, it would seem that de Ville is not merely boasting. Thus, his image of Turin as a Roman castrum with a sixteenth-century citadel must be taken as a representation of the city as perceived towards the end of Carlo Emanuele I's reign, despite the expansion efforts of the 1620s.

The expansion failed in the area most desired by Carlo Emanuele I: that of glorifying the House of Savoy as patrons of an important capital. Due to his expansionary ambitions in the Monferrato, Lombardy, and Provence, Carlo Emanuele I was not able to realize the enlargement of Turin which had been planned on too large a scale for the needs of the population. After his death, the first two years of

his successor Vittorio Amedeo I's, reign was dedicated to restoring peace to the land, since Piedmont had been invaded in 1629 by a French army, and to the recovery of losses caused by the plague of 1630.

The second campaign for the implementation of the Citta Nuova expansion took place between 1632-37 during the reign of Vittorio Amedeo I. The aims of this stage were more realistic and modest: the completion of the fortification belt of the southern expansion to make it habitable and Turin defensible since the French now occupied the fortress of Pinerolo. In 1632 Vittorio Amedeo I officially started the building campaign. The event was commemorated in an engraving by Boetto (Plate 13).⁸⁰ It shows Vittorio Amedeo I on horseback conferring with Carlo di Castellamonte. From the hill on which they stand, the state of construction immediately after Carlo Emanuele I's death can be seen. Two and one-half bastions have been raised, but they remain incomplete. A third bastion is begun with a moat being dug around it. The figures in the background are carrying earth from the moat to the terrace of the bastion suggesting that the dual activity of digging and terracing was pursued simultaneously.

Two plans of c. 1632, studies of the immediate construction needed to finish the fortification of Turin, serve as additional evidence of the state of the works at that date. The sketch (Plate 10) is most likely preparatory for the second drawing (Plate 11). In the sketch the original and actual connection between the citadel and the south wall are shown. Various proposals for fortification

enclosures are suggested in the southern expansion, as well as in the extension to the east. The proposals vary in the area of land enclosed, and type of fortification bastioned and palisaded.⁸¹

The second, colored drawing (Plate 11) illustrates constructed portions of the south wall precisely (one full, two half-bastions, two ravelins, and the south gate), and also includes a minimal fortification suggested for the area between Turin and the Po. From this drawing it is evident that the expansion to the east was no longer considered simultaneously with the expansion to the south.⁸² In both drawings the street connecting the Po bridge to the Castello is shown, testifying to the importance of this artery in the design of the expansions.

The campaign of Vittorio Amedeo I encountered difficulties similar to those of his father. There was a shortage of both materials and laborers. Since building the walls was largely an exercise in earth moving, numerous unskilled men were needed. This work was often done by soldiers. Vittorio Amedeo I's correspondence shows that both as heir to the duchy and as duke he had to work hard to find workmen, and was not always successful.⁸³ Nonetheless, at the time of his death in 1637 the fortification of Citta Nuova was essentially complete. Three churches were founded during the reign of Vittorio Amedeo I: Madonna degli Angeli (1631), S. Lorenzo (1634), and S. Francesco di Paola (1632).⁸⁴ They were located respectively in the Citta' Nuova, the Citta' Vecchia, and the Borgo di Po. The number of residences built in the Citta Nuova during this

five-year period was proportionately large, an increase of approximately 150 percent, as can be seen from a view of c. 1642 (Plate 64) illustrating a relatively dense settlement. More materials became available for private construction, and the semi-peaceful conditions of the period also encouraged construction.⁸⁵

After Vittorio Amedeo I reopened the construction of the expansion in 1632, he instituted on January 19, 1633 a separate Delegazione sopra le fabbriche della fortificationi di Torino.⁸⁶ Its mandate was to oversee, direct, and accomplish the fortification enclosure of the southern expansion. Since this council took over some of the responsibilities of the Magistrato delle Fabriche instituted in 1621 by Carlo Emanuele I, the legal problem was clarified in an edict of August 17, 1635 which established a separate Consiglio delle Fabriche in charge of non-military construction.⁸⁷ That this separation of largely overlapping functions was cumbersome and falsified the situation was proven in an edict promulgated by Vittorio Amedeo I's widow the regent Cristina in 1638 in which the two councils were united into one legal body, the Consiglio delle Fabriche e Fortificationi.⁸⁸ While the function of the united council was identical to that of the Magistrato delle Fabriche established by Carlo Emanuele I in 1621, it was only in 1638 that the right name was attached to the functions of the agency.

Vittorio Amedeo I promulgated several other edicts intended to help building and development in the Citta' Nuova. In 1632 the price

of tile, brick, and lime were established by law in order to prevent speculation.⁸⁹ The intention of this law was similar to that of the edict promulgated by Carlo Emanuele I in 1621. In 1633 an edict established the rules for the measurement of buildings.⁹⁰ The thickness of different types of walls was already standardized so that materials, the number of bricks for instance, could be calculated in advance. With this important new law, payments traditionally made according to the length of wall built, could be calculated in advance as well. As mentioned above, in 1633 masons were prohibited from working without a license from the Consiglio delle Fabriche. Thus, the ducal government controlled fully the building industry. Although the name of the supervisory agency had changed, the architect and engineers remained the same. Carlo di Castellamonte was the strongest force in the completion of the fortification, and the urban layout of the southern expansion. His supervision of the construction continued beyond the reign of Vittorio Amedeo I, as he remained politically faithful to the besieged regent and died while in her employ in 1641.⁹¹

The third building campaign, during which the fortification of the Citta Nuova was elaborated and its urban design realized, took place during the reign of the regent Cristina, officially only between 1637-48, while her unofficial but persistent political dominion lasted until her death in 1663.⁹² During this period the Città Nuova was settled and fully occupied following the original orthogonal plan.⁹³ The fortification was implemented according to

the adjusted plans of Vittorio Amedeo I. Five additional religious institutions settled in the Citta Nuova: Visitazione (1638), S. Cristina (1639), S. Teresa (1642), Madonna del Sufragio (1638), and Chiesa del Crocefisso (1647).⁹⁴ Most importantly, under her reign the expansion area was given the urban focus and cohesive design. The two parts of town were fused.

Drawings representing the siege of Turin in the civil war of 1640 between the regent and her brother-in-law (Plate 19), show the enclosure of the southern expansion fully completed, while the Roman wall still stands.⁹⁵ Construction had been accomplished during the short reign of Vittorio Amedeo I. A plan of c. 1638 (Plate 16) illustrates both the achievement of Vittorio Amedeo I, and important additions.⁹⁶ Of the four ravelins defending the southern bastions, three were built after his death in the feverish preparations to defend Turin made before the civil war. The plan shows the orthogonal grid of streets drawn over the existing moat and aligned with the square of towers of the Roman wall. This extended street pattern envisioned an additional row of blocks to be laid out over the site of the Roman wall. In itself, the planning proposal presupposes the completion of the southern fortifications which were to make demolition of the Roman wall possible. The street grid is extended over the east walls of the Citta' Nuova towards the Po, and a large, open space is shown next to the northeast bastion which is connected with a radial street to the Po. Thus, the drawing may have included a return to the original plan proposed by Carlo Emanuele I

to expand both to the east and to the south.⁹⁷ The plan is also the first to show decisively the Citta' Nuova as an expansion area separate from the eastern expansion. This plan may be dated by the existence of the walls that separate the citadel from Roman Turin and from the Citta' Nuova which were built during the civil war.

The fusion between the Citta' Nuova and Roman Turin took place after the civil war when the south wall was finally demolished. Even before demolition had taken place, there were ambitious plans made for this area between the two parts of town. In a drawing of 1637 (Plate 15), the layout of a new square was proposed for the site of the old south gate in the Roman wall and the moat area in front of it.⁹⁸ The drawing shows the location and alternative measurements for the square. There are two suggested north edges for the square which may be the result of enlarging the dimensions given originally by Carlo Emanuele I.⁹⁹ The parceling of lots along the square must be taken as proof of the reality, the tangibility of the project. The lots flanking the square were on land owned by the crown. The regent granted these lots, as well as the building materials of the demolished wall, as presents to several court favorites.¹⁰⁰ The design of the facade of the structure to surround the square was designed by Carlo di Castellamonte, and all owners were required to follow it.

A space in front of the gate had been envisioned as early as 1620 by Carlo Emanuele I, who had ordered the layout of a market square in front of the gate almost equal to the size of the Piazza

Castello.¹⁰¹ The regent can be given credit for the realization if not the ideation of the square which Castellamonte perhaps remembered. The design for the facades drew upon the example of the gallery, the Piazza Castello, and the Uffizi buildings in Florence. The facade was open at the ground level with a deep portico, and with an alternating ABA pattern of arched openings flanked by openings with horizontal lintels, the traditional serliana. The Uffizi model was echoed in the design of the upper levels comprised of a piano nobile dominating the facade with its height, and a much lower attic floor. The cornice height was continuous but lower than that of Piazza Castello, and the slender columns of Piazza di S. Carlo were in strong contrast with the heavy piers of the Piazza Castello portico.¹⁰²

In addition to awarding sites to her favorite courtiers who could be relied upon to build as prescribed, Cristina established a church dedicated to her patron saint on the south side of Piazza S. Carlo, across the street from S. Carlo. This equated the patronage of Cristina to that of her father-in-law, Carlo Emanuele I. Their twin churches organized the composition of the square, giving it focus and symmetry. They also reinforced the alignment between the southern gate, Contrada Nuova, and the ducal palace.¹⁰³ Cristina's interest in the Citta' Nuova was underlined by her sponsorship of the foundation of three more churches close to Piazza di S. Carlo.

The contrast between the grid of streets of the two parts of

town was striking, and kept the neighborhoods separated. The blocks in the Citta' Nuova are twice as long as those in the Roman section (Plate 17).¹⁰⁴ Since the streets were laid out before the demolition of the separating wall, a slight error resulted in a non-continuous alignment between the two sections. The non-alignment is too slight to have been intended.

The period after the civil war was one of recovery, even though the citadel of Turin was garrisoned by the French. As seen above, the expansion begun by Carlo Emanuele I was partially realized according to the less ambitious designs of Vittorio Amedeo I. The fortification and the layout of the Citta' Nuova being complete, the regent proceeded with the embellishment of Turin by encouraging private development and by rebuilding the ducal palaces. The implementation of the Citta' Nuova can be considered formally complete in 1656 when a plan by Carlo Morello (Plate 25) again proposed the expansion towards the Po.¹⁰⁵ The assumption of the proposal is that the addition has been completely settled and more urban territory was needed. From views of Turin drawn for the Theatrum Staatum (Plates 37, 38) in the late 1650s this assumption seems justified. The southern expansion had a well-defined square, the streets were flanked by continuous buildings of homogenous height and design. An equestrian statue commemorating Carlo Emanuele I had been placed at the center of Piazza di S. Carlo.¹⁰⁶ Only a few lots remained unbuilt, but they were in close proximity to the fortifications and hence undesirable. Even if the illustrations were not entirely

truthful, they celebrated the Savoy achievement, as well as being the announcement of further expansion shortly to begin.¹⁰⁷

NOTES TO CHAPTER II

1. Maria Cristina, the second of the three daughters of Henri IV and Marie de' Medici, was born on December 10, 1606. Her sisters Elisabeth and Henrietta Maria married the kings of Portugal and England, respectively, while her brother became Louis XIII. Her ambitions can be partially ascribed to sibling rivalry; her relation to her siblings was comparable to that of Savoy with Spain and France, competitive, but not on the same footing. She married Vittorio Amedeo, Prince of Piedmont by proxy when she was thirteen years old. Although their union was happy, Cristina had only very formal relations with her father-in-law, Carlo Emanuele I who did not trust her allegiance.
2. Document 9, ASC, Torino, Ordinati, 1620, AST, Sez. Ia., Lettere Principi Savoia, Serie Ia., Duchi e Sovrani, Lettere di Carlo Emanuele I, mazzo 9.
3. AST, Sez. Ia., Lettere Principi Savoia, Serie Ia., Duchi e Sovrani, Lettere di Carlo Emanuele I, mazzo 9.
4. BAV, Barb. Lat. 1088, f. 18, Jan. 8, 1620:
 ". . . et di Turino avvisano che volendo pure la Ser. ma Prencipessa sposa veder Turino si era andata incognita col Prencipe suo marito, e tornatasene poi l'estesso giorno a Chieri per aspettare che siano all'ordine gli appartam. ti nuovi, li param. ti delle stanze, et le livree destinate per la sua solenne entrata in quella città. . . ."
 f. 37, Jan. 15, 1620:
 ". . . et di Turino confermano che la Ser. ma sposa si fosse entrata incognita p. le feste di Natale regalata dal Prencipe Filiberto suo cog. to di due stanze di broccati superbissime, et quanto all'entrata publica non vi era cosa alcuno di certo, et gia sua A. a sen'era tornata a Chieri . . . et in fine che per dar trattenimento alla Ser. ma sposa per questo carnevale era concorse in quella città diverse compagnie di comedianti."
5. Cat. 2.
 The drawing illustrates the centrality and importance of Turin for the House of Savoy. Their dynastic, cultural, and territorial claims, represented in the individual symbolic elements of the composition, were focused upon the fortification, beautification, and possession of Turin.

6. Mostra, v. I, M. Bernardi, "Le sedi," 1-19.
The Castello stood on the site of the east Roman gate, and had been often altered, beginning from the thirteenth century. Originally composed of two towers connected by a curtain wall with arched openings in it similar to Porta Palazzo, it was used as a cassaforte by Guglielmo VII of Monferrato from c. 1260. Around 1415 it was enlarged with the addition of two towers connected by wings, and became the residence of Lodovico, Count of Acaja. The Castello was the headquarters of the French garrison when the House of Savoy lost Turin for three decades in the mid-sixteenth century. Upon the transfer of the capital of the duchy from Chambery to Turin in 1563, Duke Emanuele Filiberto went to live in the archbishop's palace near the cathedral, rather than the traditional residence in the Castello. The Castello was inhabited again from the 1650s by the regent Cristina, and then again from the late 1670s by the second regent of the seventeenth century, Giovanna Battista, whereby the building acquired the name of Palazzo Madama. After the enlargement of Piazza Castello in 1673, the Castello remained attached to the north and south sides of the square through connecting gallerie. For the history of the buildings see also, A. Telluccini, Il Palazzo Madama di Torino, Turin, 1928, M. Bernardi, Il Museo Civico d'Arte Antica di Palazzo Madama a Torino, Turin, 1954.
7. AST, Sez. Ia., Real Casa, Gioie e Mobili, mazzo 5 d'addizione, 12: inventory of 1610-12 of art objects bought in Rome; 30: inventory of 1659 of books and manuscripts; 31: inventory from the early eighteenth century of books. Lomazzo, in his Idea del Tempio della Pittura, Milan, 1590, 157, ranks the gallery of Carlo Emanuele I as fourth, after the galleries of the King of Spain, of the Emperor, and of the Grandduke of Tuscany. Claretta traces the campaigns of 1600-1620 undertaken by Carlo Emanuele I to acquire paintings, sculptures, and books from Rome. See G. Claretta, Inclinazioni Artistiche di Carlo Emanuele I e de' Suoi Figli, Turin, 1894.
8. AST, Sez. Ia., Lettere Principi Savoia, Serie Ia., Duchi e Sovrani, Lettere di Vittorio Amedeo I, mazzo 46, 6, 1597. The child Vittorio Amedeo tells of family dinners taken in the tower of the gallery, from which views of the Po and the countryside could be enjoyed.

9. For discussion of other galleria, see D. Coffin, The Villa in the Life of Renaissance Rome, Princeton, 1979, 69-87; J. Ackerman, "Sources of the Renaissance Villa," Acts of the XXth International Congress of the History of Art, Princeton, 1963, 6-18; L. Satkowski, Studies on Vasari's Architecture, New York, 1979.
- Bramante had designed the "architectural garden" defined in the galleria that connected the palace and the villa of the Vatican in 1507. In Turin the galleria faced the open landscape as at the Vatican, but also defined an important urban space. It thus incorporated the characteristics of the sixteenth century galleria as developed by G. Vasari in his designs for the Uffizi in Florence, and the loggia in Arezzo.
10. K. Forster, "From Rocca to Civitas, Urban Planning at Sabbioneta," L'Arte, 1969, II, 5:5-44.
- Planned and built by Vespasiano Gonzaga from about 1550, most of the design was provided by V. Scamozzi. While the Belvedere galleria in Rome was an open structure whose main function was to define the cortile and provide a covered passage between palace and villa, the galleria in Sabbioneta was enclosed at the upper level and its interior decorated later as a summer salone; the ground level connected the ducal palace to the fortified walls of the city. The galleria in Turin inherited the characteristics of the Roman cryptoporticus. It carried further the idea of the decorative program of the galleria in Sabbioneta by serving as an exhibition area for paintings, sculpture, and scientific objects. In its monumental proportions and in its extensive decorative program, the galleria in Turin was an important predecessor of the late seventeenth- and eighteenth-centuries galleries in Roman palaces and French chateaux.
11. Mostra, v. I, M. Bernardi, "Le sedi," 1-19. See also M. Bernardi, Il Palazzo Reale di Torino, Turin, 1959; C. Rovere, Descrizione del Reale Palazzo di Torino, Turin, 1858.
12. Cat. 6. See also V. Viale, "Un Antico Progetto per la Sistemazione di Piazza Castello e del Centro di Torino," Bollettino Storico-Bibliografico Subalpino, 1942, 44, 2:52-62.

13. Document 1, document 2, AST, Sez. Riunite, Lettere Patenti, 1606, 1612.
 Having cast around for royal husbands for his two daughters, Isabella and Maria, Carlo Emanuele I finally gave them away in a double wedding ceremony in 1608, to the Dukes of Parma and Mantua, respectively. The alliances could have proven profitable since Carlo Emanuele I was fighting with both Parma and Mantua over contested territories. The wedding ceremony was the occasion for the construction of the porticoes in Piazza Castello that the Lettere Patenti of 1606 had imposed unsuccessfully upon the owners of buildings bordering on the square.
14. ASC, Torino, Ordinati, 1615.
 The Contrada Nuova of 1615 reorganized the hierarchy of streets within the Roman castrum plan. Since the new street was aligned axially with the gate of the ducal palace, it connected the latter directly to the new gate, as the Castello was connected to a gate, but proximity was replaced by axially, and thus formal connection. The relation gate/new street/palace portal heightened the importance of the new artery, and altered the hierarchy of the existing streets. The importance of the old forum, the site of the Palazzo di Citta', was also diminished by the opening of the new south gate with a direct connection to the Piazza Castello, since entering traffic no longer passed by the Palazzo di Citta'.
15. Three towers dominated the urban silhouette: S. Andrea (Consolata), S. Francesco, Palazzo di Citta'. The two churches were also the largest buildings within the otherwise undistinguished urban fabric.
16. Document 5, ASC, Torino, Ordinati, April 7, 1619.
 Minutes mention the sum needed for the construction of the triumphal arches for the solemn entry of Madama Ser. ma, and the duke's request for money needed in the construction of Porta Nuova.
17. Document 11, ASC, Torino, Ordinati, January 15, 1621.
 There is a discussion of payments (3,000 ducati) requested by the builders of the Porta Nuova, with a detailed list of expenses for each part of the gate (pedestals, columns, rustication, cornice, capitals, etc.). Carlo di Castellamonte intervened in the negotiations for the payment.
18. S. Pepper, "The Meaning of the Renaissance Fortress," Architectural Association Quarterly, 1973, 2:21-28.

19. Document 9, ASC, Torino, Ordinati, March 15, 1620.
The outer gate was decorated with the statues of the six protector-saints of Turin; the inner gate was decorated with the equestrian statues of Beroldo and Emanuele Filiberto. The text of the inscription on the triumphal arch read:
Carolo Emanueli Sab. Duci, quod libertate armis giudicata, pace belloparta securitate publica, Victoris Amedei F et Christianae Christianiss. conjugio firmata, in eorum adventu novam urbem instituerit et antiquam illustravit; S.P.Q.T. Anno MDCXX.
S.P.Q.T. dedicated this monument in 1620 to Carlo Emanuele, Duke of Savoy because he won freedom with arms, peace through war, and confirmed public security through the marriage of Vittorio Amedeo and Cristina, at whose arrival he built a new city and displayed the antiquities (of Turin).
20. Document 9, ASC, Torino, Ordinati, March 15, 1620.
21. G. Glaretta, Inclinazioni Artistiche di Carlo Emanuele I e de' Suoi Figli, Turin, 1894, 4-10.
Claretta discussed Carlo Emanuele I's attempts to acquire works of art in Rome, particularly sculpture, but did not provide a list of objects that actually reached Turin.
22. Ceremonial processions and their relation to urban design have been recently discussed in E. B. MacDougall's, "Fifteenth Century Urbanism and Magnificentia," Paper presented at the 1983 meeting of the Society of Architectural Historians, F. Borsi, ed., Il Potere e lo Spazio, Florence, 1980, M. Fagiolo, "L'effimero e il Giardino," 31-42. See also E. Ricotti, Storia della Monarchia Piemontese, Florence, 1865, v. III, the wedding reception in Turin for Carlo Emanuele I and Caterina of Spain in 1585; F. Cognasso, Storia di Torino, Milan, 1964, ch. XV, opening of the Susa gate for the wedding reception of 1685.
23. Document 9, ASC, Torino, Ordinati, March 15, 1620.
24. BAV,, Barb. Lat., 1088, March 28, 1620, f. 195:
". . . si ha di Turino la solenne entrata fatta ivi dalla Ser. ma Prencipessa sposa incontrata da grand. mo n. o di soldati a piedi, et a cavallo, et erano percio stati liberati prigionii, rimessi banditi, e simili."
25. Document 11, ASC, Ordinati, January 15, 1621.
The payment for the builders of the Porta Nuova was contested by the city council.

26. AST, Sez. Riunite, art. 180, 1358-59, 1361, 1364-1519 are payment orders made in 1621 for construction and excavation completed in the Citta' Nuova, art. 207, mazzo 3, R 15 contains payment orders for the new apartment in the Palazzo Nuovo, the Porta Nuova marbles, sculptures for the facade of the Palazzo Nuovo and Porta Castello, the triumphal arch near the foundry, the whitewashing of two houses in Contrada Nuova. The volumes of art. 86, Tesoreria Generale for the years 1619-1623 are missing from the archives.
27. Document 5, ASC, Torino, Ordinati, March 6, 1619, document 7, ASC, Torino, Ordinati, July 13, 1619. The duke announced the opening of the street between the galleria and the Palazzo di Citta'.
28. For evidence of his ambitious plans for the expansion of the duchy see: Monarchia Piemontese, v. III and v. VI; Storia del Piemonte, Turin, 1960, R. Quazza, "Vicende Politiche e Militari del Piemonte dal 1553 al 1773," C. Bandino, "Le Istituzioni Militari del Piemonte;" "L'histoire militaire de France en Italie depuis Clovis jusqu'à a regne de Louis XV," Mss., 1e.fol., Estampes, BN, Paris.
29. AST, Sez. Ia., Real Casa, Gioie e Mobili, mazzo 5 d'addizione contains the inventory of the ducal library in 1659, mazzo 15 contains an inventory of manuscripts owned by Carlo Emanuele I. For discussion of Carlo Emanuele I's collection see: F. Zuccaro, Passagio per l'Italia, Bologna, 1608; and A. Griseri, Le Metamorfosi del Barocco, Turin, 1967, 52 for bibliography of works on Carlo Emanuele I's art, literary, and scientific collections.
30. AST, Sez. Ia., Architettura Militare, 5 vols., atlases contain manuscript and printed maps. See also A. Manno, "I Principi di Savoia Amatori d'Arte," Atti della Societa' di Archeologia e Belle Arti per la Provincia di Torino, 1879, 2:197-226.
31. According to Monarchia Piemontese, v. III and IV, the oscillation in political relations between Spain and France was made with little foresight and much bad luck.
32. Carlo Emanuele I married Caterina of Spain, the second born daughter of Phillip II, in February 1585 in Saragossa. The House of Savoy did not receive titles, territory, financial or military help from this alliance. For a detailed discussion see Monarchia Piemontese, v. III.

33. The alliance with the French King Henri IV was made in order to participate in his grand dessin for the political rearrangement of Europe, and to oust the Spanish from Lombardy.
34. For Vitozzi see C. Promis, "Gli Ingegneri Militari che Operarono o Scrissero in Piemonte dal 1300 al 1650," Miscellanea di Storia Italiana, Turin, 1871, 12:411-647; A. Baudi di Vesme, Schede Vesme, Turin, 1968, 3:1098-99; A. Placzek, ed., Macmillan Encyclopedia of Architects, New York, 1982, 4:334. Vitozzi was called to Turin in 1584. His arrival coincided with the signing of Carlo Emanuele I's marriage contract with Caterina, daughter of Phillip II, King of Spain. Vitozzi had fought in the war against Portugal waged by Phillip II in 1579. For Emanuele Filiberto see also Monarchia Piemontese, v. II, and A. Manno, "I Principi di Savoia Amatori d'Arte," Atti della Societa di Archeologia e Belle Arti per la Provincia di Torino, 1879, 2:197-226.
35. AST, Sez. Riunite, Lettere Patenti, 1584. For earlier legislated incentive for construction promulgated in Rome see L. Schiaparelli, "I magistri aedificiorum urbis (secoli XIII-XIV)," Archivio della R. Societa Romana di Storia Patria, 1902, 5-60.
36. Document 4, AST, Sez. Riunite, Lettere Patenti, 1621.
37. The Dukes of Piedmont nominated candidates for vacant bishoprics and abbeys, a right contested by the papacy in the seventeenth century. See Monarchia Piemontese, v. IV, Ch. VI.
38. Document 14, AST, Sez. Riunite, Lettere Patenti, 1622.
39. Document 4, AST, Sez. Riunite, Lettere Patenti, August 12, 1621; Lettere Patenti, December 22, 1628.
40. Document 4, AST, Sez. Riunite, Lettere Patenti, August 12, 1621.
41. AST, Sez. Riunite, Editti, September 30, 1621.
42. AST, Sez. Riunite, Lettere Patenti, October 21, 1621, November 20, 1621, July 4, 1624.
43. AST, Sez. Riunite, Lettere Patenti, April 5, 1621.
44. AST, Sez. Riunite, Lettere Patenti, May 20, 1622.

45. Document 3, AST, Sez. Riunite, Lettere Patenti, March 10, 1621, established Magistrato delle Fabriche which was to supervise ducal buildings and monitor private construction.
46. Document 3, AST, Sez. Riunite, Lettere Patenti, March 10, 1621.
47. G. G. Raschiero, councillor and state senator was appointed to this position, and his decisions could be changed only by the duke.
48. AST, Sez. Riunite, Fabriche e Fortificationi, art. 199.
49. The complaints which the representatives of the city council were to carry to the court were recorded in ASC, Torino, Ordinati, April 1619, July 1619, January 1621, September 1621.
50. Document 16, ASC, Torino, Ordinati, September 29, 1635.
51. AST, Sez. Riunite, Fabriche e Fortificationi, art. 199.
52. AST, Sez. Riunite, art. 180, art. 207; also the account of the Fabriche treasury art. 205, 202; Controllo Finanze, art. 86 of Tesoreria Generale.
Payments were recorded in the Tesoreria Generale, as well as the account books of individual treasurers, now art. 180, 202, 205, 207.
53. For the correspondence of the first long-lived secretary Golzio see AST, Sez. Ia., Lettere Particolari, G., mazzo 36.
54. ASC. Torino, Ordinati, 1620.
55. ASC, Torino, Ordinati, December 7, 1620.
A ceremonial placement of foundation stone and benediction of Citta Nuova occurred almost two years after the construction of the gate of the expansion area began. The ritual was somewhat casually arranged: Carlo Emanuele I invited the city magistrates to participate on the morning of the day when the foundation stone was to be placed. Six flags painted with the images of S. Maurizio, S. Carlo, S. Tomasso, S. Caterina, S. Cristina, and Beato Amedeo were carried by the city magistrates and placed one on each site of the future bastions.

56. The payment order for measurements for a drawing and a model of a design for the enlargement commissioned from Giorgio Chianale turns up in various articles of the Magistrato delle Fabriche. See AST, Sez. Riunite, art. 180, 1609 in 1616, 1612:230; art. 207, mazzo 1, R 9, December 8, 1612:
 ". . . Fabriche diverse devono pagare 156 di Dni 22 . . . 13 pagati d'ordine del T (esoriere) Antiochia . . . Giorgio Chianale a bon conto della misura et theppi (drawings) che deve fare dell'agrandimento che vole fare SA alla questa citta come per mand. to di questo giorno con una quitt. a." Also in AST, Sez. Riunite, art. 202, mazzo 1, 1609 in 1612, 26.
57. See N. Carboneri, Ascanio Vitozzi, un architetto tra Manierismo e Barocco, Rome, 1966, and C. Brayda, "Vitozzo Vitozzi, Ingegnere Militare e Alcuni Disegni di Torino Antica," Torino, 1939, 19.
 Ascanio Vitozzi was aided initially by his nephew Vitozzo, who died before Ascanio, but not before drawing two proposals for the expansion of Turin. By 1618 Ercole Negro di Sanfront had replaced the two dead Vitozzis, and his version of the expansion towards the Po was drawn by Morello. Carlo di Castellamonte limited the enlargement to the south perhaps as late as 1632. Plates 3 and 4 show Vitozzo's proposals. The first aligned itself with ideal city planning ideas in the way in which it proposed a simple and regular geometrical form, only marginally adapted to site conditions, but continuing the planning vocabulary of the square castrum, the pentagonal fortress with the decagonal addition. The second solution reorganized the perimeter as well as the internal structure of the city by proposing an almond-shaped fortification enclosure which engulfed the walls and the fortress.
58. Cat. 7.
59. Cat. 5.

60. Cat. 5.

A handwritten inscription on Plate 7 attributes it to Carlo Emanuele I or to his heir, depending on the interpretation accepted of the title Ser. mo Prencipe. Officially it was meant for the Prince of Piedmont, but in correspondence Duke Carlo Emanuele I was often addressed by that title. Carlo Emanuele I's authorship of this drawing is supported by his involvement in the arts and in literature; see Monarchia Piemontese, v. III, appendix.

Through the convergence of two main streets upon it the Po gate would have become the main node for internal circulation. Since this was not in keeping with the desired hierarchy, the Po gate/citadel connection was abandoned. Emphasis was placed on the Piazza Castello as the center from which all the gates could be reached, and which had to be traversed in order to go from one part of the city to another. The fortifications are not definitive; two alternatives were suggested for the river shore, while the bastions at the southwest corner near the citadel and at the east corner are not well designed, and were subsequently changed. In the event, the ten full and the two half bastions proposed in this plan were realized as four for the expansion south and six for the expansion to the east.

61. Cat. 8.

62. AST, Sez. Riunite, Editti, art. 976, 1621.

63. The major battles of the decade fought by the House of Savoy were in Valtellina, Genova, and Monferrato. Attempts were made to realize the claims that Carlo Emanuele I had in these areas through treaties with the French and Spanish governments. The French army occupied Savoy, and descended into Piedmont in 1630, taking Pinerolo and Saluzzo. The duke died during the invasion, while retreating before the French army. For the list of all battles, see Monarchia Piemontese, v. IV.

64. AST, Sez. Riunite, art. 202, 205; payments for walls and moats fall off sharply after 1622.

65. Nino Carboneri, Ascanio Vitozzi, un Architetto tra Manierismo e Barocco, Rome, 1966, 15-23.

66. The Contrada Nuova was not porticoed since the street had been cut through existing buildings. For Vitozzi's influence on Piedmontese urban design see also Nino Carboneri, L'architetto Francesco Gallo, Turin, 1954; L. Melano Rossi, The Santuario of the Madonna di Vico of Carlo Emanuele I of Savoy, London, 1907.

67. ASC, Torino, Ordinati, 1621. See also A. Baudi di Vesme, Schede

- Vesme: L'arte in Piemonte dal XVI al XVIII Secolo, 3 vols., Turin, 1968, v. I, 291-294.
68. A. Placzek, ed., Macmillan Encyclopedia of Architects, 4 vols., New York, 1982, v. I, 390-391; Mostra, v. I, N. Carboneri, "Architettura," 25-26.
69. Carlo Promis, "Gli Ingegneri Militari che Operarono o Scrissero in Piemonte dal 1300 al 1650," Miscellanea di Storia Italiana, Turin, 1871, 12:411-647; Mostra, v. I, N. Carboneri, "Architettura," 24-25, A. Placzek ed., Macmillan Encyclopedia of Architects, 4 vols., New York, 1982, v. III, 272-273.
70. After the death of Vitozzi in 1615, his titles were divided between two court officials: Ercole Negro di Sanfront was put in charge of fortifications, and Carlo di Castellamonte carried out Vitozzi's architectural projects. The design of Sanfront for the expansion of Turin was modified by Carlo di Castellamonte who supervised the implementation of the plan for the next twenty years.
71. See the text in Carlo Morello, "Avvertimenti sopra le fortezze di SRA," Mss. Mil. 177, BR, coll. Saluzzo.
72. Carlo Promis, "Gli Ingegneri Militari che Operarono o Scrissero in Piemonte dall 1300 al 1650," Miscellanea di Storia Italiana, Turin 1871, 12:477-79, A. Baudi di Vesme, Schede Vesme: L'arte in Piemonte dal XVI al XVIII Secolo, 3 vols., Turin, 1968, v. II, 721.
73. C. Brayda, et. al., Ingegneri e architetti del sei e settecento in Piemonte, Turin, 1963.
74. In Carlo Emanuele I's design (Plate 7), a half-bastion of the south wall was flush with the moat of the citadel, and within shooting range of the citadel's bastions. This strategic error was corrected in the realized plan when the half-bastion of the southern wall was distanced from the citadel, forming a space similar to the no-man's land, or parade ground, between the citadel and Cittt Vecchia.
75. Cat. 12.
76. Because the fortification belt was not complete, and because the houses were built along the entry road only, the settlement seems to be the traditional haphazardly built suburb, similar to the one next to the Po bridge.
77. Cat. 13.

78. The area between the citadel and the residential blocks was traditional, it was used as a parade ground for storage and refuge. It was an unsafe location due to the bombardment that the citadel attracted during siege. The separation between the civilian and military domains facilitated the control of the city by the garrison.
79. Cat. 9.
80. Cat. 13.
81. Cat. 10.
82. Cat. 11.
83. AST, Sez. Ia., Lettere Principi Savoia, Serie Ia., Duchi e Sovrani, Vittorio Amedeo I, mazzi 53, 54, 55.
84. Luciano Tamburini, Chiese di Torino, Turin, 1968, 128-33, 198-217, 140-47.
85. But see AST, Sez. Riunite, Lettere Patenti, May 20, 1633 decree prevented masons from working without a license.
86. AST, Sez. Riunite, Lettere Patenti, January 19, 1633.
87. AST, Sez. Riunite, Lettere Patenti, August 17, 1635 decree established the Consiglio delle Fabriche.
88. AST, Sez. Riunite, Lettere Patenti, August 30, 1638.
89. AST, Sez. Riunite, Lettere Patenti, November 27, 1632.
90. AST, Sez. Riunite, Lettere Patenti, 1633.
91. BAV, Barb. Lat., 7174, f. 59, the list of prisoners taken by the Spanish made on July 27 by the nuncio Caffarelli includes the name of Carlo di Castellamonte.
92. Cristina's rule as regent was contested by her two brothers-in-law in 1638. The disagreements led to the Civil War of 1640. She retained full power as regent until her death in 1663, even though Carlo Emanuele II was declared duke in 1654.
93. For the demography of Turin see E. Ricotti, Storia della Monarchia Piemontese, Florence, 1869, v. VI.
94. Luciano Tamburini, Chiese di Torino, Turin, 1968, part II.

95. Cat. 19.
The ravelins were erected during the reign of the regent (terminus ante quem 1637), while the fortifications within Citta Vecchia and the Citta Nuova aimed against the citadel were built under the command of Prince Tomaso whose Spanish army was besieging Turin (terminus ante quem 1641).
96. Cat. 16.
97. The grid of streets extends over the south wall of Citta Vecchia. The terminus ante quem for the plan with the continuous expansion to the east and to the south is 1619, the date of the foundation of the church of S. Carlo. The terminus ante quem for the plan with the grid extended over the south Roman wall is 1640 since the walls around the citadel's parade ground were erected in that year, the terminus post quem for the same drawing is 1632 when the enclosure of Citta Nuova was definitely established.
98. Cat. 15.
99. The dimensions of the square are given on the drawing, 24.2 x 54.2 trabucchi. The larger dimension is the variable in the drawing, as the alignment with the Contrada Nuova was studied.
100. AST, Sez. Riunite, Lettere Patenti, 1637-1648, granting lots to court officials in Citta' Nuova.
101. Document 8.
102. Piers were placed between the coupled columns in mid-eighteenth century when a survey showed that the structure was weakening. See Notes to Chapter I, 15.
103. The twin churches predate the better known twin churches on Piazza del Popolo in Rome which were built in the 1660s and 1670s. See Giorgio Ciucci, Piazza del Popolo, Rome, 1974.
104. Cat. 17.
Due to fewer cross-streets the building lots were larger and there was less street frontage.
105. Cat. 7.

106. Commissioned by Cristina to commemorate her father-in-law, Carlo Emanuele I, this project echoed the memorial equestrian statue of Henri IV placed by Marie de' Medici on the Pont Neuf, adjacent to place Dauphin. The equestrian statue now at the center of the square represents Emanuele Filiberto after the battle of St. Quentin, and was made in the 1880s by Mazochetti.
107. Theatrum Staatum Sabaudiae Ducis, Pedemontii Principis, Cyprus Regis, etc. . . ., 2 vols., Amsterdam, 1682.
The publication had a long and difficult history. Begun in the 1650s, drawings were made by local artists and sent to the Blaeu publishing company through the 1660s. The collection was damaged by fire in 1671. The plates were made over, but due to financial problems, the albums were not issued until 1682.

CHAPTER III

THE PLANNING OF BORGO DI PO

After the completion of the fortification of the Citta Nuova and the opening of Piazza S. Carlo in 1642, construction in the new part of Turin continued for a quarter of a century. Between 1637 and 1652 the regent granted approximately twenty-five lots mainly in the area surrounding Piazza S. Carlo to various religious groups and court officials. They were expected to build residences following the prescribed facade design.¹

Few of the lots were granted unconditionally. Some were intended to be cultivated as gardens, but the perimeter of the lot was to be defined with rows of shops and apartment houses for rent.² In 1648 the last lot on the Piazza S. Carlo was given to the Marchese di Voghera, a general of artillery, in a grant signed by Cristina and her co-regents Maurizio and Tommaso.³ Orders to level the Piazza Reale (S. Carlo) were not given until 1662, and payment for its pavement in brick was not disbursed until 1668.⁴ Close control of the land ownership and the buildings constructed in the Citta Nuova was exercised by the crown which attempted to stimulate development through parcel donations, but neither encouraged nor practiced speculation. The incomplete state of Citta Nuova is indicated in a 1646 edict promulgated by Cristina, in which owners were urged to paint their still "rustic" property within six months, and to finish

building upon empty lots within two years.⁵ The most striking clause urged owners who had built off the street line to enclose their property at the edge of the lot, and place their gardens and courts at the interior of the block.⁶ Cristina and her architects were attempting to alter the traditional house type, changing it in the process from a country (free-standing) to an urban (continuous with adjacent buildings) form.

Besides overseeing private building fortifications and villas outside Turin, the crown sponsored several building projects in the 1650s and 1660s. These projects were the rehabilitation of the Castello, the rebuilding of the Palazzo di Principessa Ludovica (Chiabrese), and a new wing of the Palazzo Reale.⁷ Of the five churches begun in the Citta Nuova during her regency, Cristina helped to build S. Teresa and S. Cristina, both of which belonged to the discalced carmelitans. Cristina used the convent of her patron saint as a retreat, especially in the last five years of her life when Carlo Emanuele II began to assume the reigns of government. Her patronage inserts itself seamlessly within the dynastic ambitions of the Savoy dukes. In her own words from the edict of 1646, she claims that she is continuing the projects begun by Carlo Emanuele I and Vittorio Amedeo I (while she develops them further). The final paragraph of the edict establishes that the crown intends to enlarge Turin according to the first design of Carlo Emanuele I, but only when it will be convenient.⁸

In this chapter, comprised of two parts, the documents related

to the revived expansion project begun in 1673 will be discussed first in order to reconstruct the intentions of the crown, the financial arrangements, the planning studies, and the legal machinery used to effect the Po extension. Then a discussion of the organization of designers, builders, and the ducal agencies supervising the construction works will serve as introduction to the following chapter dealing with the Po expansion as it was realized and celebrated.

* * * * *

The enlargement of 1673 had been contemplated as early as 1668 by the duke, Carlo Emanuele II, who jotted down some of his motives for the enlargement of Turin in his personal diary.⁹ The earliest related entry is dated May 30, 1668 in which the expansion was being considered as a way of making money through an increase of the tax base of the city. Religious orders were to be excluded since they did not pay taxes. This attitude was in sharp contrast with that of Carlo Emanuele I who invited religious orders to settle in the Citta Nuova with various grants and privileges. Carlo Emanuele I had tried to win the favor of the pope by permitting the foundation of several monasteries and convents, including that of the Jesuits. Carlo Emanuele II was trying to prove his independence from Rome and wanted to keep out religious orders.¹⁰ Indeed, there were fewer religious institutions in the Po expansion than in the Citta' Nuova, even though the expansion areas was larger.¹¹ The diary entry also provides a clue for the way in which the enlargement was to be financed. The

duke intended to buy the available land in the area, and then resell it at its increased value (after the expansion was fortified, the land increased officially by three-fifths of its original value). The profit was expected to cover the expense of half of the fortifications. The city would be cajoled to pay the other half needed for the bastions and the new gate, thus allowing the duke to contribute very little out of the treasury.¹² The crown was simultaneously subsidizing numerous other construction projects.

On January 1, 1669 the duke recorded that in order to quell the protests of property owners in the Po expansion areas, they were allowed to make the estimates of their own property. It was a self-serving permission since the crown stood to gain if the owners foolishly inflated the values. On the other hand, since the duke intended to buy out owners who were unwilling to pay the balance (between their estimate and the three-fifths increase), the crown would gain equally if owners purposely underestimated the value of their property (in order to owe a smaller balance to the crown) by having to pay less for land.¹³

A lengthy entry of April 1669 was divided into two parts: a note about the materials and documents needed to make final decisions about the enlargement, and an outline of a speech to be made to the city councillors who were the strongest impediment to the duke's volition. The first part of the entry contained ten points dealing with the major issues as follows. The design would have to be determined in order to know the size of the enlargement, and whether

the old fortifications would have to be demolished.¹⁴ In order to calculate the construction cost streets and squares were to be planned.¹⁵ The property in the area owned by the crown and the fortifications belonging to it were to be sold in order to raise money for the new fortifications.¹⁶ The duke would determine with the council the conditions for waiving payment on the increased value of properties.¹⁷ Owners were allowed to determine the value of their property, as considered in the earlier entry of 1669.¹⁸ Religious institutions which owned property in the Po enlargement would be obliged to exchange it with land from the farm of the Valentino villa. Emulating the examples of the French and English kings, Carlo Emanuele II insisted on demonstrating his power over the religious institutions in his domain.¹⁹ The construction of fortifications should begin and be paid for by an outside source; in addition the Minister of Finance was asked to examine possible indirect taxes that could be tapped for this purpose.²⁰

The memo dealt almost exclusively with the financial aspects of the enlargement. There was no mention of the military needs of Turin; the ideological impact of an enlarged and beautified town was not alluded to by the ambitious duke who was well aware of pomp and representation. All the finer motives for enlarging Turin--philosophical, aesthetic, and charitable--were saved for the speech which the duke prepared for the city councillors, in the second part of the diary entry, and which included the following points.

1. The demographic increase in the population warranted an expansion.²¹ The city councillors pointed out that the new land was not needed since the old parts of town were not entirely built up. The land to be enclosed was almost entirely settled by suburban inhabitants.
2. The expansion area would be ennobled with academies, colleges, and other public institutions for the exercise of virtue. These will attract wealthy foreigners, merchants, and bankers who will make Turin famous. Turin's good location and the fact that "it is full of wealthy and devoted citizens who would serve their prince in need" was to provide another attraction.²²
3. The new perimeter, built according to the true rules of military architecture, will make the siege of Turin difficult. Its new dimensions would elevate Turin further within the hierarchy of fortified towns and necessitate a large army to attack it successfully.²³ This was to be the most convincing reason for the enlargement presented to the city councillors.
4. Turin should be prepared to fight since Pinerolo was in French custody at the time. The closeness of the Po, implicit in the expansion, will permit the city to receive help from its allies in the Italian peninsula in case of attack from France.²⁴ The duke mentioned the possibility of leaving the old fortifications in place after the new ones had been built.

There were precedents even in Turin for this idea since the old reconstructed Roman walls had great symbolic meaning. Even if the

inhabitants of the new parts of town had rights equal to those enjoyed within the ancient enclosure, the Roman walls carried a special significance, helping the original citizens to identify themselves and to maintain an illusionary superiority.²⁵ The double walls may be kept for military reasons, the center, with the city hall, the cathedral and the ducal palace being thus defended by two layers of fortifications. But, the duke argued, if the walls were left standing the city would be less beautiful and populated. Nonetheless, priority must be given to making Turin a good fortress; the dialectic of beautiful town and excellent fortress recurred often in seventeenth-century discussions of urban expansion in Turin.²⁶ The exact response of the councillors is not documented, but in the bargaining sessions that followed the duke's speech they succeeded in reducing the financial contribution required of the city.

In 1670, at mid-year, the duke promulgated an indirect tax on sales of meat and wheat the income of which was to be used for the fortifications.²⁷ In September 1671 the duke asked his Minister of Finance to review the expenses of the court, and of the duchy. In an effort to secure the financing of the Po expansion, the duke considered outside loans and the interruption of building projects elsewhere, as well as personal sacrifices.²⁸ By that date he was entirely involved with the expansion project, and was neglecting the Palazzo Reale and the Venaria Reale.²⁹ Since mid-1673 the problem of how to insure payment to the crown for the increased value of the land enclosed by the new fortifications was not resolved; a

commission was instituted to decide on the matter. Its members were a group of high-ranking officials directly involved in the administration of Turin, and the development of the Po expansion.³⁰ On August 14, 1673 the commission had decided the appropriate tax, while the search for additional funds continued.³¹

The diary entries of Duke Carlo Emanuele II are a fundamental source for understanding the motivations for the Po expansion. They show that his interests also had a pecuniary aspect. A project intended to increase available funds, possibly to lend support to other construction projects, later acquired significance in terms of representation. The planning for the expansion shows the diplomatic ability and the tenacity of the duke whose building achievements exceeded by far those of his immediate predecessors. In the event, the crown had to shoulder the cost of the fortifications alone, since the city subsidized only the construction of the gate, and because it took thirty years to collect the sums owed to the crown by owners whose land had increased in value after it was enclosed by the expanded fortification.

* * * * *

The formal aspirations of the crown were clarified by the edicts that were to control the expansion of Turin. The key elements of the formal program can be derived through a comparison of the original edicts with the zoning and building restrictions that were actually adopted, but also through the ordinances which regulated the design and materials used in construction. At the scale of urban design,

the formal aspirations were characterized by large dimensions, uniformity, and economy of means in the design of buildings which defined the wide streets and squares. The attributes of the monarchic government tending towards absolutism, economy, uniformity, and vastness differed from the aspirations of most sixteenth-century rulers in the importance given to uniform large-scale design. The most interesting example is provided by the patronage of the Farnese, who sponsored urbanistic interventions in Parma and Piacenza, among others. They succeeded in fortifying both cities, and reconstructing their own palaces. But despite the opening of new streets and squares, they altered neither city in a comprehensive manner, as the expansions of the seventeenth century sponsored by the Dukes of Piedmont altered Turin.

The analysis of the edicts in chronological order will bring to light the concrete details of the formal program. The decree of July 2, 1648, Carlo Emanuele II's first order related to the capital's physical aspects, was in two parts. It commanded the leveling of Contrada Nuova, the street which connected Piazza Castello and Piazza Reale in the Citta' Nuova. Proprietors of houses along the street were required within one month to lower the street and to pave it at their expense. Further directions could be obtained from Amedeo di Castellamonte, who supervised the works.³² The second part reinforced the edict of 1646 promulgated by Cristina. Her order had been divided into four points. The first point required owners of land in the Citta' Nuova to begin to build within

four days of the edict's publication, and to finish building within two years.³³ The duchess stated her decision to continue the work of her husband, Vittorio Amedeo I, and of her father-in-law, Carlo Emanuele I, while also adding a royal square.³⁴ The second point required that owners of land on the most frequented streets, and on the street between the Piazza Reale and the citadel, to maintain a continuous building line and cornice height. Gardens and courts along the street were to be avoided since they would deform its linearity. Linearity would embellish and ennoble the city through the uniformity, continuity, and order of the facade.³⁵ The third point commanded that "rustic" houses be plastered and whitewashed within six months, and those on the Piazza Reale decorated according to a given model.³⁶ The demand for conformity occurs repeatedly in the ducal edicts. Plastered masonry was not a traditional method of construction in Piedmont. Beyond tradition, the uniformity that was imposed, designating them subject to an authoritative ruler, may have been resisted by owners who perhaps would just as soon pay the threatened fine than have houses identical to their neighbors'.³⁷ The fourth point prohibited construction in the Po suburb without ducal permission, since the intention of the duchess was to enlarge Turin to the Po "following the first design made by Carlo Emanuele I."³⁸

Moreover, Cristina adopted a harsh position through which she tried to consolidate the ducal authority. The punishment for disobedience to the first and the fourth points of the edict was

expropriation. Cristina's formal aspirations were modeled largely on those of Carlo Emanuele I, and on French urban design which she had witnessed before leaving Paris in 1619. She in turn influenced Carlo Emanuele II in his planning decisions.³⁹

The announcement of July 1672 by Carlo Emanuele II, proclaimed his interest in having the Citta' Nuova expansion area "full, and ornamented with buildings in all its corners," and its streets completed. The duke lifted all prohibitions impeding construction. At that moment it was essential to have every lot occupied.⁴⁰ The fact that the Citta' Nuova was not entirely settled, implicit in the official lifting of the prohibitions, weakened Carlo Emanuele II's dominant reasons for the Po expansion, that the citizens of Turin were cramped within the 1620s enclosure.

But the thorough settlement of the Citta' Nuova was a more complex problem. In October 1672 Carlo Emanuele II sent a note to the city council asking it to demolish the illicit additions to the roof of a four-story building on the Contrada Nuova. The council was granted authority to punish the scofflaws and to restore the building to its original height. The reason against this fifth floor was that "it ruins the architecture, design and beauty of the street."⁴¹ The illegal additions may be proof of lack of land, but the July edict had shown the contrary. However, since the Contrada Nuova was the most important street of the southern development, property along it seems to have been in great demand. Thus, while peripheral lots remained empty, important vacant frontage on central streets and

squares was lacking. Despite this economic reality the crown preferred homogeneous development and rigorous observance of its urban design regulations. In contrast to Cristina, Carlo Emanuele II's decrees carried no threats, attempting to achieve their aim through delegation of authority.

The edict of December 1673 asked owners of land in the soon-to-be enclosed Po expansion to send within fifteen days (the order was not obeyed and again they were exhorted in October 1674 to comply within ten days) a real-estate estimator who would, together with the ducal representative, establish the value of individual properties before the expansion began. In the case of non-compliance the estimate would be made by the crown's official alone, and would be binding. Although the tone of these edicts is authoritative, Carlo Emanuele II was encountering difficulties in implementing his plan to garner the cost of the fortifications from the increased value of private property. The main impulse informing the edict was one of speculation, but not for personal or royal gain since the funds would go to the fortifications, while the formal aspirations remained implicit.⁴² A letter of April 1669 from the Minister of Finance Trucchi had warned Carlo Emanuele II that he was undertaking too many building enterprises, and that, although potentially profitable for his renown and his finances, they could not be supported simultaneously by the crown treasury.⁴³

The first edict of the regent Giovanna Battista, on December 1675 following the death of her consort Carlo Emanuele II, reaffirmed

the key elements of his building program. Privately owned property needed for the crown's building program was to be purchased by the crown.⁴⁴ Citizens planning to build in the Po expansion were granted ten years to implement their plans; construction would have to start within five years, and reach a height of two trabucchi the year after. Buildings could be ornamented according to the owner's wishes, but had to be at least three stories tall with no gardens or walls less than three stories facing public streets. A uniform design provided by the crown was required of buildings facing Piazza Castello, the Contrada di Po, and the Piazza Carlina. The edict was lenient in terms of the time allowed. Two formal aspirations remained constant: a continuous street and a uniform building height.⁴⁵

Giovanna Battista's edict of January 1678 softened this requirement by allowing two-story buildings to be erected and gardens and courts not wider than five trabucchi facing public streets. At intersections though the height of three floors was to be maintained, and contiguous gardens were not permitted. The original building height of three stories was to be maintained for the street connecting the citadel to Piazza Carlina and for Piazza Carlina.⁴⁶ The decree changed the plan of Piazza Carlina from octagonal to rectangular because the irregular blocks rendered difficult the sale of those parcels. The emphasis on the street between the citadel and Piazza Carlina illustrates the importance accorded the longest continuous street of Turin connecting the two expansion areas.⁴⁷ The

street was not clearly defined at its eastern end, but it led westward to the citadel bisecting Piazza Carlina and defining the north edge of Piazza Reale. The street was secondary to the Contrada di Po and Contrada Nuova since it did not lead into the Piazza Castello. Giovanna Battista's attempt to treat this street as a major one conflicted with the centralizing tendency of the urban organization, and did not meet with complete success. While the street was defined by the churches and palaces that flanked it, it was not to achieve the monumentality of the major streets, since the buildings called attention to themselves.⁴⁸

In an edict of 1685 Vittorio Amedeo II upheld the edicts of 1675 and 1678 but adopted a harsher tone. The property owners had been derelict in not building and not paying their debt to the crown.⁴⁹ The intentions of the crown remained the same: uniform continuous building line and emphasis on the major streets and squares. Litigation between property owners and the Senate continued as late as 1713, when auction was threatened.⁵⁰ In the meantime the architectural quality of the new area was set by the ducal buildings around the Piazza Castello, the hospital of San Giovanni, and the private palaces that began to be built in the area.⁵¹

The key elements of the urban design program remained constant during the implementation of the Po expansion. They were continuous building height and street definition, uniform facade design for the major streets and squares, and use of uniform construction materials. Efforts were made to facilitate private building through the adoption

of an orthogonal street grid. The orthogonality helped in surveying, and in settling disputes over property. The plan of the expansion area and the building codes aligned themselves formally with the original studies of the 1610s. The difference occurred in the character of the ducal building program. Rather than founding churches and monasteries, the crown subsidized the construction of buildings to house its secular agencies.

* * * * *

Since the transferral of their capital to Turin in 1563, the Dukes of Savoy had invested in its fortification, enlargement and enhancement. This activity was modeled in part and inspired upon similar building activity sponsored by the Farnese in and around Rome in the mid-sixteenth century, and by Henri IV in Paris at the beginning of the seventeenth century. Carlo Emanuele II was concerned with matters of rank, taking his contested royal title seriously, and expected to be treated as the equal of the monarchs of Spain and France. The beautification and enlargement of Turin was meant to support these claims by aggrandizing and spreading the fame of the House of Savoy.⁵²

The expansion and building of Turin reinforced the authority of the duke by obliging the population to conform to his planning and building restrictions, and by making his presence constantly felt. Entries in his diary, as well as the tenor of the edicts, claim that the beautification of Turin was the duke's main reason for expansion. Turin had to be embellished even if that required reduction of

expenses elsewhere in Piedmont.⁵³

Carlo Emanuele II claimed that by enlarging Turin toward the Po he was restoring it to its original condition (Plate 31). The Po forms an important part of the Savoy imagery and iconography. In Tesauro's history of the Savoy dynasty the lineage of the family and Turin's existence are traced to the Egyptians (Plate 32).⁵⁴ Like most of the histories commissioned by the Savoy, Tesauro's work attempts to provide proof for the royal claims, and the antiquity of the family.

The most glaring illustration of the absolutist ducal government was the establishment of Piazza Castello and the Piazzetta Reale as command center and the pivot connecting the three parts of town. Urban design was the tool employed to give Piazza Castello centrality, and thus put into relief the position of the ducal family. This requirement explains why the two proposed diagonal connections between the citadel and the Po gate and between Piazza Reale and the Po gate were not implemented in the final street layout. The Piazza Castello was at the end of the three streets which structured the three parts of town, the three spines of the city: the Roman decumanus (the main street of Citta Vecchia which connected Piazza Castello to the Susa gate), the Contrada Nuova (the main spine of the southern expansion which led through Piazza Reale to Porta Nuova), and the Contrada di Po (the radial street that cut diagonally through the orthogonal grid of the eastern expansion and connected the river gate to the center of town (Plate 33)).⁵⁵ Since

the streets were traced while the walls between existing and new sections were still standing, they were not in precise alignment (Plate 34). Thus, to go from one part of town to the other one had to pass through the center. Since proximity to the Po was a major element of the ideological program, the east-west streets became more important as can be seen from the strong east-west axis of Turin's oval plan. The convergence of the ceremonial axial streets upon Piazza Castello gave constant visibility to the ducal quarter. In becoming the geographical center the ducal residence lost its fortress-like character. The Castello, however, maintained its martial aspect with the moat separating it from both halves of Piazza Castello. The rebuilding of the main facade of the Palazzo Reale begun in the 1640s reinforced its connection with the Contrada Nuova by placement of the portal as the focus of the axial street. The ducal residence was surrounded on three sides by the three parts of the city, but at its northern edge it bordered on the fortifications. Expansion towards the north, which would have placed it at the literal center of Turin, was prevented by topographical conditions. There was both a sharp change in level at the edge of the ducal garden behind the palace, and the Dora was an unpredicable stream until its canalization in the nineteenth century (Plate 63).⁵⁶ Moreover, the edge condition may have helped to insure the security of the ducal family, and perhaps the palace was thought to provide a formal "pendant" to the citadel in the southwest corner of Turin. In many illustrations the ducal residence is shown as a bastioned

fortress, and its relation to the city is not unlike that of the citadel (Plate 27).

The centrality of the ducal compound and of its administration was further reinforced by the circle of buildings which housed the court's and the state's government offices, the academy, the theatre, and the stables. These extended the territory occupied by the ducal family and its retainers deeply into the Po enlargement. Later, when the university and the archive were built they strengthened this existing ring of service buildings. The effect of the institutional buildings centered around the pivot-like Piazza Castello further separated the new and old quarters, acting as an irregular edge and as a boundary (Plates 35, 36).⁵⁷

In its attempt to realize financial gain quickly from the expansion, the crown also practiced a form of speculation. Before the expansion plan was made public it acquired lots in the Po suburb. The sites were used for the construction of fortifications, ducal buildings, or sold at a profit.⁵⁸ The crown also had the option to buy out a landowner, at the price estimated by the owner if the latter would not pay the balance on the increased value of the property, or did not build on it within the time allotted.⁵⁹ Initially, the crown owned little land between the east wall of Città Vecchia and the Po other than the sites of the fortifications. After the intense building activity of the 1660s, the better sites in the Città Nuova in the proximity of the ducal palace had been built upon (Plates 37, 38).⁶⁰ The duke wanted to give his officials the

opportunity to build a residence in Turin. Since the court officials could be expected to stay as close as possible to the ducal palace, they were likely to acquire lots on the site of the demolished walls, thus buying their land from the crown rather than from private owners. The walls were demolished much sooner than those of the first expansion. Carlo Emanuele II took advantage of the Franco-Flemish war to tear down the eastern walls of Turin in 1674.⁶¹ This also suggests that the construction of the new fortifications was well along.

Measures were taken to facilitate life in the new neighborhood. The major step involved moving the market from Citta Vecchia to Piazza Carlina. The transfer, together with the lenient rules regarding shopkeeping and other businesses which in Citta Vecchia were strictly regulated by guilds, provoked protests from the city council.⁶² Since the council had been told rather late about the impending expansion, there was little they could do to prevent its realization. The measures taken by them were largely evasive. At first the councillors delayed the meeting in which their responsibilities would have been outlined.⁶³ They attempted to avoid any financial obligations but were finally charged with the construction and payment of the Po gate, financed in part from a food tax which the duke had temporarily assigned to construction. At the end of the negotiations, they rapidly acquiesced to funding the marble gate, the most expensive single element of the expansion.⁶⁴ The council members claimed poverty even before requests were made of

them from fear of being loaded with untraditional duties. When they knew that the gate was to be their only responsibility, they gave up complaining as abruptly as they had begun. In the relations between the council and the duke, this pattern was often followed.⁶⁵

* * * * *

The most important practical motivation for the eastern expansion was military. The expansion was to defend the Po bridge. The crossing, sheltered on the east by the Cappuccini hill, fortified and garrisoned by the duke's army in time of war, was to be secured from the west side as well. Protection of the bridge was one of the duke's stated motives for the expansion in the speech made to the city councillors on the eve of the foundation ceremony.⁶⁶ Other reasons and intentions took second place to the need of fortifying Turin. In addition to the defense of the bridgehead, the Po expansion was to give the duke command of the river. In case of attack, the river could serve as an emergency route, and as a way of receiving help from the Italian allies. At the time Pinerolo, the first fortress on the Italian side of the Alps, was still in French possession.⁶⁷ The duke felt the pressure to strengthen Turin which found itself in an exposed situation. Turin was presented as a border bastion, a bulwark against French invasion. Its independence was in the interest of all Italian princes who did not want an additional invader in the peninsula.

The enlarged walls of Turin were to be built according to the latest military specifications. The understanding was that the

increased wall perimeter would render siege more difficult, requiring a very large army for an effective attack.⁶⁸ The enlarged wall perimeter also yielded the reverse problem, the need for an enlarged garrison to staff the bastions. The question of maintaining the old fortifications after the new ones were built, as a fortress within a fortress, was discussed at length by the duke and his councillors.⁶⁹ Since the citadel functioned as an emergency refuge, the maintenance of two layers of fortifications was deemed harmful for the rapid development of the Po expansion area.

The Po expansion incorporated the existing Po suburb. Only land needed for fortification was to be expropriated. However, since the expansion did not abut the Po, a reduced suburb continued to exist.⁷⁰ In case of siege its existence was threatened not only by the attacking army but also by the defenders. This suburb was the last settled area remaining close to Turin's walls. The girdle of fortifications expanded outward and by the early 1700s had eradicated suburban settlement.

Beside the obvious necessity to become the patrons of the Po, the eastern expansion was the implementation of the original plans of the 1610s, and a reaction to the Citta' Nuova settlement. From the eastern wall of the first addition, the eastern wall of Citta Vecchia was defended. This was accomplished through an uneconomical use of the area between the projecting eastern fortifications of Citta Nuova, and the east wall of Citta' Vecchia (Plate 37). The fortified perimeter of Citta Nuova had too many bastions for the area it

enclosed. Since the walls of Citta' Nuova jutted out towards the east, moving the Roman wall east would have increased only slightly the number of bastions needed to defend a much larger portion of land. An oval urban perimeter was the most strategic form of enclosure, since it enclosed the largest area with the least number of bastions.

The expansion to the west was not seriously considered because little territory could be attached before the citadel was rendered inefficient.⁷¹ The ideological value of the pentagonal fortress was too great to allow for its incorporation within the walls of Turin, which would have been the effect of expansion to the west.

The land east of Turin was reasonably level and defended in its "peninsula" location between the Dora and the Po. The Citta' Nuova expansion increased by 50 percent the territory of Turin, while the Po expansion equaled in size the area of Roman Turin (Plate 26, 27).⁷² The Po expansion was far from the citadel, and it was not directly connected to it.⁷³ The equivalent of piazze d'armi were opened at the Po gate and beside the Castello, and used as public squares.

The new bastions were connected by a wide street used for the passage of cannon. Only the gates were axial with the through streets. However, all laws regarding the opening of streets or of keeping them closed for private or institutional advantage were dependent on the possibility of cannon passage. Three of the six bastions of the Po expansion were connected through an east-west

street to the citadel's piazza d'armi. It could be argued that these connections were inherent in the grid plan, but the plan also represents a conscious decision to facilitate these military connections. Turin was easily crossed and hard to hide in. Thus, fortifications and the military strategy determining their employment produced the dominant formal characteristics of the plan of Turin.

The ducal intentions to enlarge Turin stated in Cristina's and Carlo Emanuele II's edicts of the 1640s were confirmed in the planning studies of Turin commissioned in the 1650s and 1660s. As seen in the discussion of the first expansion, the fortifications of Turin's Citta' Nuova were complete by 1642. During the civil war, defenses were built which separated the citadel from the two parts of town (Plates 19, 20).⁷⁴ The citadel was occupied by a French garrison between 1644-1657, and its warring relationship with Turin is illustrated in a plan where the gun ports of the citadel oriented towards Turin are carefully drawn (Plate 21).⁷⁵ With the completion of the fortification and the demolition of the southern Roman wall, illustrated in a 1650s drawing, came the interest for further expansion (Plate 22).⁷⁶ In a similar drawing, the east wall of Citta' Vecchia was eradicated, and the proposed extension towards Po included fortification of the bridge on both sides of the river. The expansion area was to be oval (Plate 23).⁷⁷

Amedeo di Castellamonte's proposal of the 1650s called for a semicircular expansion plan, also oriented towards the Po (Plate 24).⁷⁸ His version of the new extension was to be separated from the

existing parts of town through a canal that connected the Dora and the Po. The orthogonal street grid of Città Vecchia and of Città Nuova was extended to form the street system of the Po expansion. The resulting blocks equaled and in some cases exceeded the size of the blocks in Città Nuova. The doubling of Piazza Castello, like a mirror image of the original, allowed the Castello to stand at the center of the new square. This imaginary drawing envisioned a straight street connecting the Castello and the Po bridge, implying that the bridge would be moved downstream.

In a 1656 drawing Carlo Morello envisioned the Po expansion with an oval perimeter, but proposed two different enclosures, of seven and eight bastions, respectively (Plate 25).⁷⁹ The plan of Piazza Castello was similar to that of Amedeo, but shown with surrounding porticoes that extended into Contrada di Po, which connected the Castello to the Po bridge diagonally. Two tridents of streets, emanating from Piazza Castello and from the Po gate, structured the expansion areas whose spatial focus was a trapezoidal piazza. The two streets which flanked the piazza to the north and to the south were to lead to the southeast corner of Citta Nuova and to the citadel. They are traces of the proposed intentions see in the autograph ducal drawing prepared in the 1610s (Plate 7).

A more regular and abstract proposal is seen in another drawing for which a later date of 1665-68 is suggested by the six bastions of the fortification (Plate 26).⁸⁰ An alternative diagonal Contrada di Po that connected the Castello and the Po bridge gate was drawn on

flap of paper that obscured an orthogonal street layout below. In this covered part the trident of streets from the Po gate, the enlarged Piazza Castello and the new square may be clearly seen, but they have been abandoned in the alternative. An expansion towards the west, with the blocks traced in, may suggest that the planner was momentarily looking in other directions for the expansion.

A presentation drawing containing the major spatial elements of the expansion as proposed in 1673 may be considered the official plan followed between 1673-75 (Plate 27).⁸¹ The porticoes, enlarged Piazza Castello, the academy east of it, the diagonal Contrada di Po were part of the urban design soon to be realized. The octagonal and porticoed Piazza Carlina was part of the 1673 design, changed to orthogonal form with the edict of 1678 (Plate 28).⁸²

The most economical fortification enclosure for the expansion to the east, employing five bastions, was proposed by Vauban in a drawing from the early 1670s (Plate 29).⁸³ In this proposal the topographical conditions of the expansion area were extensively dealt with. The resulting silhouette is nonetheless oval. Vauban was already a widely recognized and praised military architect. His drawing was important even though he was denied the commission because it lent the corpus of planning studies an added aura of legitimacy. While making his decisions entirely from a practical and military stance, he suggested the same oval form for Turin's fortification trace which had been proposed by other architects, and Duke Carlo Emanuele I. Thus, he helped an idea whose original

impulse was as much an aesthetic vision as strategic design.

All of the drawings represent Citta' Nuova as an accomplished fact. Except for the Castellamonte proposal, the suggested plans closely follow the directions set down in the autograph plan of the 1610s. There is a major innovation in the Castellamonte plan: the doubling in size of Piazza Castello which provided the desired centrality to the Castello, the residence of the regent.

* * * * *

None of the planning studies were fully applied in the realization of the expansion. Changes were made even in the official plan of 1673. The plan by G. Abbiati, made in Turin in 1680, is the earliest plan drawn after the Po expansion to show how the project had been implemented (Plate 39). It also shows an unbuilt western extension which was first illustrated in Borgonio's plan of c.1671 for the Theatrum (Plate 35). Thus, the map, although engraved, is not an actual representation of Turin, but an illustration of forecast future developments. The Po expansion is structured by the wide, porticoed Contrada di Po, with four narrower streets dividing the area north of it, not six as in the presentation drawing of 1673 (Plate 27), and not five as in the plan of c.1678 in which the alternative rectangular form was suggested for Piazza Carlina (Plate 28). A trident of streets was shown emanating from the square at the Po gate.

That this design was not realized is seen in the 1724 plan of Turin (Plate 30). Another change that took place was the closing of

a street east of the Annunziata to form one large block. The attempts to make Piazza Carlina important by connecting it to a street that went to the gate had failed. A secondary street opening from the Po gate leads to the rear of Palazzo Carignano, a more accurate representation of the urban hierarchy within which the palace of the cadet branch of the House of Savoy had greater importance than the market place of the Po extension.

In the plan by Abbiati the continuity of the north-south streets is interrupted by the Palazzo Carignano and the church of S. Antonio. In the 1724 plan the large block of the Annunziata further diminished the possibility of continuous movement within the neighborhood, orienting traffic west towards Piazza Castello and Citta' Nuova. Despite these enlarged blocks and the irregular polygonal shape of the blocks flanking Contrada di Po, the average area of blocks in the Po expansion was smaller than the average area of blocks in Citta' Nuova, which are also more uniform. The diminution of the blocks around Piazza Carlina resulted in increased frontage used for shops. The buildings forming the square are entered from the side streets. This manner of increasing commercial frontage, and of separating residential and commercial circulation was systematically adopted in the design of Piazza Savoia in the western expansion of Turin (Plates 41, 42). The blocks were smaller in the presentation drawing of 1673 than as realized after 1680. The small blocks of the earlier plan showed the intention to return to the scale of Citta' Vecchia, within which the possibility of interior open space, gardens, and courts

would have been greatly reduced. As realized, the Po expansion had numerous gardens.

* * * * *

The planning and realization of the Po expansion was not an isolated project, but only one element of the vast ducal building program which encompassed all of Piedmont. Minister Trucchi's letter of 1669 showed that the crown was involved in many construction projects of fortification, urban design, and architecture, more than could be financed simultaneously.⁸⁴ The idea for the Po expansion occurred at a time of intense building activity, perhaps partly due to the presence in Turin of Guarino Guarini. Improvements were made at the Castello and the Palazzo Reale, whose facade on Piazzetta Reale was rebuilt between 1658-60, partially in reaction to the challenge of the city which began to build the Palazzo di Citta in 1659,⁸⁵ and to accomodate the soon-to-be married duke. Building was also taking place in the cathedral at the Sindone chapel, and at the site of S. Lorenzo, turning the Piazzetta Reale into a construction site.⁸⁶

A large portion of the duke's personal income was used for the construction of the Venaria Reale begun in 1658. The architect in charge of the Venaria, Amedeo di Castellamonte, was also working on the maintenance of the palaces of Moncalieri and Rivoli, both visited often by Carlo Emanuele II while the Venaria was under construction.⁸⁷ The design and construction of the Venaria Reale might be considered a rehearsal for the development of Turin. In

addition to the foundation of this settlement and hunting lodge, the crown was fortifying Vercelli and Verrua, and was attempting to create a city at its narrow outlet on the Mediterranean, with a villa franca status modeled on that of Livorno which would have increased the revenues of the duchy.⁸⁸

The building activity in Turin in the late 1650s and 1660s can be seen as a gathering of forces and of experience to undertake a large planning and construction enterprise. The implications inherent in the design of Citta' Nuova were carried out in the composition of the facade of the ducal palace, the definition of the Piazzetta Reale and the systematization of the Holy Shroud. Private residential construction was encouraged in the Citta' Nuova. A building boom began simultaneously with the later expansion to the east, following the cutting and leveling of the new streets, and the demolition of the eastern walls.⁸⁹ The vast ducal building program promoted over the five decades following the 1673 expansion was accompanied by an equally large private and institutional enterprise.⁹⁰

In the context of the Po expansion, the building of Venaria Reale was an important precedent. The project comprised the hunting lodge rebuilt at palatial scale, and the layout of a semi-urban settlement beside it. The plan of the settlement was orthogonal, surrounded by a pallisade. The houses were two-stories tall with interior gardens and courts. The main street of the town was axial to the main portal of the entrance pavilion of the lodge. At the

center of town was a large porticoed piazza with exedras perpendicular to the main street within which the facades of the church and the hospital were placed. A semicircular piazza opened in front of the palace's main entrance (Plate 43, 44). The organization of the settlement recalls the layout of the town founded by Richelieu (Plate 60). The relationship between town and palace is achieved in the same way through a connecting street and an open space between the palace and the town. The plan of Venaria Reale was an improvement over that of Richelieu. A clear understanding of public building and civic service was manifested in the juxtaposition of hospital and church, while at Richelieu there is only a church on the main square. More importantly, the main street at Venaria led to the gate of the ducal compound making an axial connection between town and palace. The street connecting Richelieu to the chateau passed parallel to its main entry, reducing the importance of the chateau as climax. While Richelieu was merely adjacent to the chateau, Venaria became the forecourt of the palace, providing it with a spatial experience similar to that of traversing the Città Nuova of Turin along the axial Contrada Nuova focused on the portal of the ducal palace. The garden began at the other side of the main wing. Venaria Reale was referred to as a villa, and Carlo Emanuele II expected his courtiers to build their country houses there.⁹¹ The problem of finding enough settlers quickly was great, and Venaria Reale did not achieve uniformity of facade even along its main street. While the site had been chosen for its abundant game, the

foggy, marshy land did not make it auspicious for permanent residence.⁹²

Interestingly, it also completed the crown of villas built by the Savoy family around Turin. At the time of its implementation it was the largest ducal project to be subsidized entirely from the ducal treasury.⁹³ Its main urbanistic elements, the ornamental gate, the uniform axial street, the open square providing a spatial connection and distance between town and palace, were employed literally in the design of Turin's Po expansion. The axuality of the main street is important because it dominated the urban plan; its length and uniformity gave hierarchy to the street grid.

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Amedeo di Castellamonte, the architect of Venaria Reale, the hunting lodge and the town, was of ancient Canavese origin, and belonged to the Cognengo branch of the Castellamonte counts. He was the son of Carlo di Castellamonte, the chief architect of Carlo Emanuele I. Like his father, Amedeo was an artillery officer, a strategist, spy, military engineer, and architect. During his long career he served the regent Cristina (widow of Vittorio Amedeo), Carlo Emanuele II, and the Regent Giovanna Battista (widow of Carlo Emanuele II). He had studied law, then architecture under the guidance of his father, Carlo. His titles were ducal engineer (1639), ducal architect (1646), general superintendent of Fabriche e Fortificazioni (1659), and state councillor (1666). In 1667 Amedeo became lieutenant-general of artillery, and with a patent letter of

1678 was named chief engineer of the crown.⁹⁴

Numerous letters document his relationship with the House of Savoy, many of which have been published.⁹⁵ Caught in disputes over precedent within the state council, the later part of his life seems to have been rather difficult.⁹⁶ The Castellamonte, planners of the two enlargements of Turin in the seventeenth century, were not fortunate in their choice of house locations. Carlo had been obliged to sell his lot near Piazza Reale so that the convent of S. Cristina could be enlarged.⁹⁷ The family's house was bombarded by the Princes' allies during the civil war of 1640, and another parcel was expropriated because it was too close to the citadel.⁹⁸

At the beginning of his career Amedeo worked with his father, Carlo. Their major project together was the Villa Valentino, which the son completed after the father's death. Amedeo supervised the construction of other buildings for the regent Cristina, including the convent of S. Cristina, and Cristina's private apartment in it, the Vigna della Regina, the ducal apartments in the castle of Moncaglieri, and altars in various churches in Turin.⁹⁹ In the late 1650s Amedeo was involved in the design of the Sindone Chapel, a project revived through the keen interest of Prince Maurizio.

Throughout his long career, the duties that were part of his multiple offices and appointments kept him occupied with the major fortresses of Piedmont and of Savoy. Amedeo provided designs for the rehabilitation of Momigliano, Ceva, Zucarello, Cherasco, and Cuneo. He was involved in the fortification of Verrua, Santhia', Villanova

d'Asti, Asti, and Mondoví, strongholds located at strategic points in the duchy. The rebuilding of the facade of the Palazzo Reale in Turin, and the expansion of the hunting lodge at Venaria Reale began in 1658 and 1659, respectively, by Amedeo. He laid out the facade of the palace across the north side of the Piazzetta Reale which was cleared of the foundry buildings in 1659. A porticoed structure was built in front of the Palazzo Reale separating the Piazzetta from the Piazza Castello. Beside its function as urban screen, it served as a foundation for festive temporary pavilions within which the Holy Shroud was exhibited.¹⁰⁰

Construction at Venaria Reale was in its final stages when Carlo Emanuele II decided to enlarge Turin. Amedeo was the most experienced planner available at court. His position at the time was that of superintendent of fortifications, and when the Fabriche e Fortificationi agency merged with the council of finance he became a cabinet member in charge of ducal construction. He had a large group of assistants, principal among them were M. Garove and G. F. Baroncelli.¹⁰¹ His role in the expansion can be inferred from the recorded ceremony of the laying of the foundation stone in 1673; as director of fortifications he was directly responsible to T. Balbiano, the military governor of Piedmont.¹⁰² In Carlo Emanuele II's diary Amedeo was nominated in June 1673 to be a member of a commission charged with the establishment of a method for financing the expansion.¹⁰³ There was no discussion regarding the design of the expansion. The design of the specific architectural elements,

the facades of Piazza Castello, Contrada di Po, and Piazza Carlina were provided by Amedeo separately, and later.

The edicts of the regent Giovanna Battista credited Amedeo with the design of the Contrada di Po and Piazza Carlina facades.¹⁰⁴ Beside the layout of the Po expansion and the facade designs, Amedeo was also the architect of the ducal building program in the Po enlargement.¹⁰⁵ His relationship with the star architect at court, Guarini, is not documented. However, from Carlo Emanuele II's impatience with the aging Amedeo and the fact that Guarini was given the commission to finish the Sindone chapel at his arrival in Turin, it can be surmised that there was friction between the two architects. Nonetheless Amedeo continued in the service of the crown, although he commanded less respect and authority than his father had.

The Consiglio delle Fabriche e Fortificazioni, instituted in 1638 by the regent Cristina to supervise the fortification of Citta Nuova and the ducal building program became, in 1666, part of the Consiglio di Finanze.¹⁰⁶ The ministers Trucchi and Turinetti were directors of the agency which implemented the expansion of Turin towards the Po.¹⁰⁷ Even before the merger, the position of the Secretary of the Fabriche e Fortificazioni had been occupied by a Secretary of Finance.

After the Consiglio di Finanze took over in 1666, the work of the agency did not change. For the Po expansion it accepted bids for contracts, and awarded the contracts. Payments for building the

walls and digging the moats were ordered through the council, which also employed the agrimensori in charge of checking the quality and quantity of work accomplished. Similarly, the bids for the building of the ducal academy, ballroom, and stables located east of Piazza Castello were discussed and contractors were chosen by the Consiglio di Finanze.¹⁰⁸ Besides Amedeo di Castellamonte, Turinetti and Trucchi, the members of the council included the chancellor H. Gina and the auditor P. Marelli. Turinetti and Truchhi had served Cristina and were trusted servants of the crown. Gina and Marelli were in charge of liaison between the council and the contractors, and may have acted as contractors themselves.

The Fabriche e Fortificationi Council was reinstated in 1678 by the regent Giovanna Battista with a somewhat altered mandate.¹⁰⁹ The agency was to oversee the expropriation of land needed for the ducal projects in the Po expansion. These works were intended to enhance the aspect of Turin, and provide amenities for the city and the ducal family. The members of the council remained the same through the early 1680s. Throughout the active period of the Fabriche e Fortificationi Council the meetings of the agency seem to have been representative of the political, nepotistic business manner of the ducal government. For instance, when putting a building out for bids, the council usually favored a contractor. When the bids were returned, the council regularly tried to convince the favored contractor to accept the work at the lowest bid that had been received.¹¹⁰ Thus, throughout the documents which record the

building of Turin in the seventeenth century, the names of the same participating builders are met with again and again. Not only are certain construction companies entrenched, but the longevity and perseverance of several are noteworthy, similar to that of the councillors. Amedeo di Castellamonte served four governments, while Turinetti and Turcchi both served three governments.¹¹¹ Although its mandate changed over time, the role of the Fabrice e Fortificazioni Council remained well defined. It was entirely dependent on the crown, but as one of its "incorporated" agencies it could operate freely within its restrictions.

In contrast to the agency, whose contractual, supervisory, and administrative services in relation to fortification, opening of roads and construction of buildings were straightforward and unilateral, the role of the constituent members was multiple. Turinetti and Turcchi were both occupied with the economic and political problems of the entire duchy, serving respectively as Secretary of State and as Secretary of Finance. They had risen to high office through their study of law and their own abilities, rather than family or clan connections; neither was born into the nobility. The case of Amedeo di Castellamonte was more complex. His aristocratic birth implied, as a matter of course, an involvement in military affairs (strategy and fortification); as mentioned above, he was a commissioned military officer. His contribution to the government of the duchy as a State Councillor was made as a noble in the service of his lord. Amedeo's further employments as a civic

architect and as a writer on architectural and urban design demonstrate his multiple talents. They also show that at least at the court of Turin, the schism between military and civil architecture postulated by H. de la Croix to have taken place by the end of the sixteenth century had not occurred, since Amedeo received and carried out commissions in both areas.¹¹²

NOTES TO CHAPTER III

1. Duboin, lib. VII, 932-37.
2. Duboin, lib. VII, 933.
". . . Donazione d'un sito dei fossi tra la parte vecchia di Torino e la Città Nuova, in punta alla contrada di S. Martiniano largo trabucchi 20 e lungo 24 in favore del conte di Colegno per farsi un giardino, con obbligo di fabricare botteghe e camere lungo la gran strada pubblica, per tutta la larghezza sudetta così che la facciata verso la strada non resti imperfetta."
3. Duboin, lib. VII, 934-35.
4. AST, Sez. Riunite, Fabriche e Fortificationi, art. 197, 1662, art. 86, 1663, 1668, 878, 1224, 1293.
5. Borelli, 929-30.
6. Borelli, 930.
". . . E perché molti per loro commodità non fabricano i corpi delle case sopra le contrade più frequentate, ma vi tiranno invece le muraglie delle corti e de' giardini, onde non essendo unitamente continuate le fabriche, rimane per cagioni de' vacui diforme la struttura delle dette contrade, di dover fabricare ivi le case loro e partare nelle porte di dentro i cortili e giardini, acioche la città resti più abbellita, e nobilitata per l'uniforme e continuo corso e ordine delle facciate delli edifici, il che dovranno anche osservare quelli che hanno siti dalla Piazza Reale sino all' Cittadella e lungo del muro della Città Vecchia demolito li quali dovranno fabricare supra la linea della nuova contrada da darsi quivi conforme al disegno sotto pena a noi arbitraria."
7. Mostra, v. I, M. Bernardi, "Le sedi," 1-8.
8. Borelli, 930.
". . . Finalmente sendo nostra intentione di proseguire l'aggrandimento di questo città sino al Po con nuovo recinto di fortificationi conforme al primo dissegno fatto fare del detto Serenissimo Carlo Emanuele quando il tempo ce lo permetta. . . ."
9. Memoriale; AST, Sez. Ia., Real Casa, cat. 3, mazzo 18, for the mss.text.

10. Memoriale, 28.
 ". . . In deto agrandimento non metterei frati ne monache afin di popolare perche le grandi citá sono quelle che rendono molto. . . ."
11. The two new foundations were the Chiesa del Crocefisso (1677), and S. Filippo (1675).
12. Memoriale, 28.
 ". . . Agrandire Torino la citá li concori accomprare tutti li siti che quelli rivendendo si potra fare la metá delle fortificationi l'altra metá la citá concorendo, con poca cosa che io ci metti si farebbe senza gran costo."
 Early in 1669 the city council was asked to contribute 50,000 for the expansion towards the Po; see ASC, Torino, Ordinati, February 17, 1669.
13. Memoriale, 59-60.
 ". . . . mi e suggerito un pensiero che e agiustato che avero la cosa con parere delli presidenti Bellezia, Nomis et cancelliere presidente Turinetti gieneral di finanze per fondare le cose con tanta giustizia et ragioni et per far tacere quelli che non sanno. . . ."
14. Memoriale, 68.
 ". . . convenire del disegno tanto per la largeza del agrandimento che per sapere se si demolisce la vecchia fortificazione o no."
15. Memoriale, 69.
 ". . . disegnar le piazze et le strade quali vanno al mio costo per li calcoli sul resto."
16. Memoriale, 69.
 ". . . In caso di demolicione espor venali li siti miei con il qui preso devono farsi li preparamenti per la nova cinta. . . . Et perché e giusto che li possedenti beni stiano nel circuito della detta nova cinta si come con essa si renderanno piu preziosi cosí contribuiscono un aiuto per la spesa della clausura et fortificatione, percio far un ordine col quale si obbligono tutti a consegnarli per qualità e quantità minutamente sotto gravi pene. . . . Et siccome si avertise non parermi giusto di astringere li particolari al pagamento della detta contribucione mentre non sono sicuri della clausura che e quella che le fu giustamente dovuta cosi credo che presentemente non si possi fare capitale delli miei siti consistenti nelle fortificationi."

17. Memoriale, 69.
 "... determinar con il consilio di chi mi piacerá la cota della contributione."
18. Memoriale, 69.
 "... Fra altro ordine o comprender nel primo la dimanda della detta cota lasciando alli patroni delli beni et case come ho gia detto in questo libro a lungo di farne l'estimo et rimeterlo a qui vorra, con facolta a me o di prender la detta quota o di pigliare il fondo pagandolo all'estimo che ne avera fatto il patrone in qual modo alcuno non si potra dolere dell'estimo."
19. Memoriale, 69.
 "... alli ecclesiastici che averanno beni nel detto circuito darliene altri della cassina del Valentino."
20. Memoriale, 69.
 "... Siché volendo fare che si incamini detta fortificatione converra di valersi d'altro fondo per questo ho incaricato il gieneral di finanze fare spedire prontamente la causa delle gabelle che anno messo senza il mio consentimento contro li particolari della città di Torino. Avertisco inoltre che nella occasione della vendita delli miei siti si comprendino le demolizioni che vi saranno per cavarne maggior prezzo."
21. Memoriale, 69.
 "... per far logo al popolo che già è cresciuto in tanto numero che ora mai non capisce piu nella presente città."
22. Memoriale, 69.
 "... per nobilitarla con la construsione di academie, collegi di nobili et molti altri logi pubblici per 'esercizio delle virtu a fine d'atirarvi artefici negozianti banchieri et altri virtuosi forestieri rendendola celebre come spero mi reuscira come post nel principio dell'Italia alli confini et passaggio della Francia piu comoda di tutti li passaggi che vengono in Italia e cosi numerosa d'abitanti ricchi et dovitosi che anco nelle ocasioni possino servire il suo principe."
23. Memoriale, 69-70.
 "... per renderla maggiormente forte poichè formandosi la nova cinta con le vere regole militari siccome avanzandomi verso il fiume Po obbliga li assalitori a fare delli quartieri cosi lontani li uni dalli altri che la circonvallazione si renderebbe molto difficile per la sua grandezza et per la difficulta delli fiumi che venendo grossi puol separare detti quartieri et cosi facilmente socorerla o forzare li quartieri che saranno deboli e per questo fare bisogna una armata grossissima che avanti sia insieme si provedono le cose."

24. Memoriale, 70.
 "... ma da non legieri ma per considerare bene Torino resta frontiera di Pinerolo, per questo considerandola tale bisogna metterla tutta nel miglior stato che sia possibile et essendo patrone del Po che da quel fiume posso sperare soccorsi dalla banda d'Italia et tutto batte a portar avanti un lungo assedio affine che quelli principi boni italiani et politici che non conviene che il Re di Francia si rendi piu patrone della Italia come i Venesiani Spagna per li stati che tiene nella Italia Sua Santita che questi nominati possino o per soccorerlo far diversioni rendermi liberi dalle oppressioni che mi potessero esserre tentati da quelli che aspirano a rendersi patroni di tutti et pensare alla monarchia della Europa attaccandosi a quelli che non hanno la forza di restare sebbene il core per non paventare alcuno: queste son cose che la politica presente mi fa considerare."
25. The guilds, the hospitals, and the offices of the city council were located in Citta' Vecchia.
26. Memoriale, 70.
 "... per questo bisognar demolire la vecchia non servendo per essere patrone della citta' argomento molto forte si puol dire che la cittadella fa l'istesso effetto che farebbe quel secondo ordine ma lasciandolo non farebbe l'effetto che si desidera che e di popolare la citta', renderla belle, et con questa facilita attirare li popoli ad abitarla considerando l'accrescimento come borgo sebene fortificato, ma tutte le suddette ragioni devono cedere alla politica di fare una bona piazza di guerra. . . ."
27. Memoriale, 108.
 "... giachè avemo avuto la sentenza favorevole nella causa contro la cita' per le due gabelle tre denari per livra delle carni e due soldi per emina delli grani delli panetari, farne far l'exazione d'essa e aplicarlo il ricavato per la fortificatione di Torino."
28. Memoriale, 164.
 "... veder il fondo della spesa della mia persona, li casuali, e per rimettere le fortificazioni che sono guaste, per questo che il gieneral il presidente Turinetti si mettino insieme per vedere quello che le finanze potranno contribuire et anco in Savoia; oltre di questo vedere che sorti d'imposti il paese puo portare a far il conto sicuro durabile e non fondarsi che sopra cose ben cierte."
29. Memoriale, 165.
 "... non fabricar piu in alcun loco. . . ."

30. Memoriale, 322.
 ". . . Avvicinandosi il tempo proprio per travalliare all'ingrandimento di Torino, perciò é necessario mettere in esecuzione il mio pensiero motivato nel mio libro giornaliero dell'anno 1671, a tale effetto nomino li seguenti ministri, gran cancelliere, marchese di S. Germano, p.p.Novarina, Blancardi e Truchi, commendatore Balbiano, presidente Gonteri, gieneral di finanze conte Amedeo Castellamonte, auditori Becaria, Gina e Marelli per esaminare."
31. Memoriale, 323.
 ". . . Avendomi il presidente Truchi detto di farci trovare un suo amico di riscattare dalli monti di fede e altri redditi demaniali alinati a 5 a 6 per 100 e li ridurrá a 4 per cento, li ho comandato di coltivarne l'effetto perche e negozio bono, intanto che pensi a trovar fondi per l'ingrandimento di Torino."
32. Duboin, lib. VII, 938.
 ". . . per aggiustare al livello della Piazza Reale di Citta' Nuova, la nuova contrada tra Piazza Castello e detta Piazza Reale e necessario ridur la medesima contrada al suo primo livello . . . confirmando . . . l'ordine degli 8 d'aprile del 1646 fatto da Madama Reale . . . sopra il finimento di detta Citta Nuova et ampliacione sino al Po . . . coomandiamo a tutti quelli che tengono case nella detta nuova contrada . . . che fra un mese . . . debbano haverla fatta abbassare, sternire et esportar la terre soverchia . . . osservandone . . . ordini che ne dara il conte Amedeo Castellamonte. . . ."
33. Borelli, 930.
 ". . . commandiamo a tuti quelli a quali sono stati conceduti nella . . . Citta Nuova siti da fabricarsi che debbano metter mano a farli fabricare fra quattro giorni dopo la publicatione di questo haverli compitamente fatti fabricare fra due anni immediatamente seguenti. . . ."
34. Borelli, 930.
 ". . . habbiamo parimente questa dell'ampliacione . . . di questa citta' . . . non solamente in conformita di detto disegno, ma anche con lo stabilimento d'una Piazza Reale da noi stimata a proposito per maggior ornamento. . . ."
35. Borelli, 930.
 ". . . per questo commandiamo a coloro che tengono siti sino al livello delle medesime contrade di dover fabricare ivi le case loro . . . accioche la citta resti abbellita e nobilitata per l'uniforme e continuato corso e ordine delli edificij. . . ."

36. Borelli, 930.
 ". . . essendo le facciate della maggior parte delle case di detta nuova citta' per anco rustiche ordiniamo per abbellimento maggiore che si facciano tutte stabilire e imbiancare fra sei messi prossimi. . . ."
37. There are no documents specifically recording the repugnance of property owners, but the slow pace at which the edict was obeyed suggests such an interpretation.
38. Borelli, 930.
 ". . . sendo nostra intentione di proseguire l'aggrandimento di questa citta fino al Po . . . conforme al primo disegno fatto fare dal Serenissimo Carlo Emanuel . . . comandiamo . . . a quelli che fabbricheranno . . . al Borgo di Po . . . sopra le nuove contrade da livellarsi si non toccar in maniera alcuna la linea di dette fortificationi . . . ma fabricar le case dove e come sara loro dal Conte Amedeo Castellamonte . . . prescritto. . . ."
39. Carlo Emanuele II completed the planning projects that his mother had intended to implement.
40. Borelli, 930.
 ". . . considerando noi di quanto vantaggio e abbellimento della Citta' Nuova di questa citta' sia per risultar l'essere quella ripiena e ornata di fabbriche in tutti suoi angoli e vacui habbiamo voluto ordinare . . . che per compimento delle strade di detta Citta' Nuova si facciano le fabbriche . . . per tal constructione d'edificij non si posa esser impedimento alcuno. . . ."
41. Duboin, lib. VII, 939.
 ". . . intendiamo che alcuni particolari habbino data principio ad una nova elevazione di stanze della contrada nova, et che l'alzamento si faccia sopra del cornicione per formare il quinto piano . . . il che disdice all'architettura, disegno, et abbellimento di detta contrada. . . ."
42. Borelli, 931.
 ". . . ordiniamo a patroni e a quei c'hanno l'aministratione . . . de'siti sudetti che debbano fra il termine di giorni quindici presentare . . . avanti il consiglio delle nostre finanze un estimatore da loro eletto accio che in compagnia di quello che sara eletto del detto consiglio . . . si proceda all'estimo e misura di tutti essi siti fabricati o non fabricati. . . ."

43. AST, Sez. Ia., Lettere Particolari, T, mazzo 32.
 ". . . con due sole rifletioni finisco . . . il commercio (of Villafranca) divulgato per tutto il mondo incaminato con impegno, anzi gelosia a migliori porti d'Italia e di Francia. L'aggrandimento della città non ancora slergatosi fuori delle mura con la semplice notitia, l'una e l'altra e opera gloriosa e riuscibile, ma non in tempo medesimo. . . ."
44. Borelli, 933.
 ". . . li siti li quali SAR si vuol valere sono li seguenti:
 1. il sito della Gran Galleria
 2. quello del'Accademia
 3. quello della fabrica della Zecca e Dugana
 4. quello della Piazza del Corpo di Guardia alla Porta di Po
 5. quello per la Piazza Ducale
 6. quello per il quartiere de' Svizzeri
 7. quello per il convento de padri di Santo Sudario
 8. quello per due conventi"
45. Borelli, 932-33.
 ". . . per maggior commodità de' cittadini e altri che vorranno far fabricare in detto aggrandimento concediamo loro il termine d'anni dieci . . . di far fare le loro fabriche . . . quelli che fra cinque anni non haveranno principiate le loro fabriche saranno tenuti darle principio l'anno sesto con far le fondamenta e haver fra tutto detto anno sesto alzata la muraglia sopra terra almeno per trabucchi due . . . permettiamo di far le fabriche con gli ornamenti che loro piacerà con ciò però che le fabriche siano in altezza almeno di tre piani e verso le strade pubbliche non si lascino alcuni giardini o muraglie più basse delle sudette di tre piani. . . ."
46. Borelli 933-34.
 ". . . permettiamo a tutti quelli che hanno acoprati siti posti nel sudetto nuovo ingrandimento . . . di poter far cortili e giardini che si estendino sino alle strade pubbliche di larghezza sino a trabucchi cinque, pur che non s'incontrino detti giardini sopra le cantonate . . . volendo due vicini valersi di questo beneficio non possano fare detti giardini congiunti . . . sopra la medesima linea di strada . . . permettiamo i quali non havranno il modo di alzare le loro case a tre piani le alzino solamente a due . . . esclusi li siti sopra la strada che principia della cittadella. . . ."

47. Borelli, 934.
 "... sendoci statto rappresentato che la forma prescritta alla sudetta Piazza Carlina di figura ottangolare havrebbe cagionata molta incommodita alli particolari . . . attesa l'obligatione delli angoli e la fabrica d'essi habbiamo fatto ridurre detta Piazza a figura quadrata. . . "
 Duboin, lib. VII, 942.
 "... la citta ha pensato di . . . introdur nella Piazza Carlina ed in essa farvi ale all'intorno o altrove quando disconvenisse alla prospettiva d'essa piazza, accio gli uomini, robbe e bestie possino esser difesi dalle ingiurie del tempo."
48. The even cornice height was not maintained, even though the flanking buildings were substantial. There were several major palaces built along this street in the early eighteenth century, and they define the street while maintaining their individuality. In the Contrada di Po and the Contrada Nuova the identity of the individual building was subsumed behind the coherent facade of the entire block.
49. Duboin, lib. VII, 942-43.
 "... vi sono ancora in dett'ingrandimento molti siti ne'quali neanco s'e data principio alla fabrica, il che pregiudica molto al decoro della citta' . . . vi sono ancora de particolari possessori di detti siti inclusi in dett'ingrandimento quali non hanno pagato la maggior valenza portata de dett'ordine del 1675. . . ."
50. Duboin, 954.
 "... commendiamo ad ogni persona . . . che possedesse o presentamente possedi fabbriche e siti nel recinto del nuovo ingrandimento della presente citta' cominciando dalla Piazza del Castello di Madama Reale . . . di dover fra 15 giorni dopo la publicatione delle presenti far et haver fatto fede delle quitanze de' pagamenti da caduno fatti, delli tre quinti della maggiore valenza d'essi siti e di quelli comprati dal signor patrimoniale generale. . . ."
51. The academy, ducal stable, and theatre around the Piazza Castello, and the hospital were unplastered brick buildings which maintained the prescribed building height, while individual palaces were plastered and whitewashed.
52. The title of King of Cyprus was first used by Carlo Emanuele I, and officially adopted by Vittorio Amedeo I in 1630 when he inherited the dukedom. The problems of precedence among the Italian dukes had occupied a focal position since the elevation to the Grandduchy of Tuscany and of Cosimo I de' Medici.

53. In order to pay for the fortification of the Po expansion, the duke sold property and buildings materials, borrowed money from the city and from the Monte di Pieta, renounced a part of his personal income, promulgated sales taxes, and devised new laws regarding the ownership of property in the expansion area.
54. D. Emanuele Tesauero, Historia dell'augusta citta' di Torino, Turin, 1679, v. I, 1-3.
 Born in Turin in 1592, Tesauero was a retainer of Prince Tommaso with whom he went to Flanders in 1635. Only the beginning of the first volume of the work is by Tesauero.
 On Plate 32, the inscription by Tesauero supports the Savoy claim to an Egyptian lineage and antiquity:
 Aegyptionus Rex Eridanus
 Eridani fluviorum regis in ripa
 Urben Aegyptio Tauro cogniminem
 Inaugurat
 Setae seculis ante Romam conditam
 Eridanus, King of the Egyptians, inaugurates the city with the Egyptian name of the bull, on the banks of the Eridanus, the monarch of rivers, seven centuries before the Romans.
55. The map of 1751 by B.A.Re is the first accurate map published after the completion of the Po expansion. It includes the eighteenth century western expansion, the urban contribution of Juvarra, and the straightened Doragrossa.
56. Moving closer to the Dora might have upset an ancient order within which the Po was the river that represented Turin.
57. In both images, the buildings of the ducal program in Turin assume iconic role; they stand out because of their size, stylistic continuity, as well as proximity to one another. The buildings of the Po expansion are represented as regular structures enclosing large courts and gardens, only partially achieved in Citta' Nuova, and in strong contrast with the dense and low buildings of Citta' Vecchia.
58. Memoriale, 28.
59. Memoriale, 60.
60. The two main streets of Citta' Nuova, Contrada Nuova and Contrada della Cittadella, and the Piazza Reale were flanked by continuous rows of buildings.
61. See note 89.

62. ASC, Torino, Ordinati, 1673-74.
Since the regent allowed the city to build pavilions and banche in Piazza Carlina, which were rented to individuals, the protests were not as vociferous as those against the market in Piazza Reale had been fifty years earlier.
63. Memoriale, 78.
64. ASC, Torino, Ordinati, 1673.
65. ASC, Torino, Ordinati, 1670, 1619.
66. Memoriale, 69.
67. Memoriale, 70.
". . . da non legieri ma per considerar bene Torino resta frontiera di Pinerolo, per questo considerandola tale bisogna metterla tutta nel miglior stato che sia possibile et essendo patrone del Po che da quel fime posso sperare soccorsi dalla banda d'Italia. . . ."
68. Memoriale, 70.
". . . poiché formandosi la nova cinta con le vere regole militari siccome avanzandomi verso il fiume Po obbliga li assalitori a fare quartieri così lontani di uni dalli altri che la circonvallazione si renderebbe molto difficile per la sua grandezza et per la difficulta delli fiumi che venendo grossi puol separare detti quartieri et così facilmente socorerla o forzare li quartieri che saranno deboli e per questo fare bisogna una armata grossissima che avanti sia insieme si provvedono le cose. . . ."
69. Memoriale, 70.
". . . vedere se si deve lasciare la fortificazione vecchia ovvero stante la nova se si deve demolire. . . ."
Also, AST, Sez. Ia., Fabriche e Fortificationi, m. 1, n. 10, April 30, 1669.
". . . Alle presenza dell'ecc.mo Sig.r Marchese Villa per l'aggrandimento della città. . . per gli diversi fattori politici e militari si stima non come finite gettare abbasso le fortificat.ni della Città Vecchia ma solo aprirvi le comunicazioni con le nova."
70. Cat. 18.

71. AST, Sez. Ia., Fabriche e Fortificazioni, m. 1, n. 10, April 30, 1669.
". . . l'opera dissegnata per il novo attacam.to del Bastione della Consolata sino alla Cittadella si stima non tanto necessaria quanto ben disegnata."
72. Cat. 26, 27.
73. But the bastion of S. Vittore beside the Po gate was directly linked to the citadel with the Contrada della Cittadella, which passed by the principal squares of both expansion areas.
74. Cat. 19, 20.
75. Cat. 21.
76. Cat. 22.
77. Cat. 23.
78. Cat. 24.
79. Cat. 25.
80. Cat. 26.
81. Cat. 27.
82. Cat. 28.
83. Cat. 29
84. AST, Sez. Ia., Lettere Particolari, T, mazzo 32, April 23, 1669.
85. Mostra, v. I, N. Carboneri, "Architettura," 1-8.
The facade of the Palazzo di Citta' was decorated with the orders of architecture, while the austere Palazzo Reale was not.
86. Carlo Emanuele II, v. II; Mostra, v. I, M. Bernardi, "Le sedi," 1-8.
The facade began in 1658 to a design by Amedeo Castellamonte; Carlo Emanuele II then moved into the apartments facing the Piazzetta Reale.

87. AST, Sez. Ia., Lettere Particolari, C.
The letters were addressed to Madama Reale and regard the progress of construction at the palace of Moncalieri during the 1650s.
88. AST, Sez. Ia., Lettere Particolari, T, mazzo 32, April 23, 1669; Memoriale, 59.
". . . per che avendo con le proprie finanze fatto Vercelli et Verrua et volendo dopo accomodare Asti, non si puol attendere a tante cose se non si ripiega. . ."
89. Memoriale, 359.
". . . fare sbalzare prontamente le fortificazioni di Torino, poiche il tempo e proprio, giacche la Francia e si occupata come e nelle guerre. . ."
90. The more important buildings included Immacolata (1673), S. Filippo (1675), Collegio de' Nobili (1679), Ospedale di S. Giovanni (1680), Palazzo Carignano (1679), Palazzo Graneri (1682), Palazzo Asinari (1684), Palazzo Barolo (1692), Università (1713), Palazzo Paesana (1715), Palazzo della Valle (1716), Palazzo Martini di Cigala (1716), Palazzo Cavour (1729).
91. Carlo Emanuele II, v. II, 469-70.
92. Amedeo di Catellamonte, La Venaria, real palazzo di piacere e di caccia, Turin, 1672, 74, discussion with Bernini about the siting of the lodge.
93. Carlo Emanuele II, v. II, 385.
The drawings for the Venaria Reale were sent to Paris. Louis XIV heard of them but put off seeing them, and when he decided soon after to rebuild the hunting lodge at Versailles, it became ill-advised to show him the drawings.
94. C. Boggio, Gli architetti Carlo ed Amedeo Castellamonte e lo sviluppo edilizio di Torino nel secolo XVII, Turin, 1896.
95. A. Baudi di Vesme, Schede Vesme, 3 vols., Turin, 1963-66, v. I, 285-91.

96. AST, Sez. Riunite, art. 200, registro primo, February 25, 1678.
97. Luciano Tamburini, Le chiese di Torino, Turin, 1968, 147, n. 2.
98. Memoriale, 346.
 ". . . dicendo che nelle guerre civili si e mesa a terra la sua casa pero non dal mio partito ma dal contrario, la camera lo espellisce in questo, ma li dona qualche convenienza per liateriali li quali servirono a francesi per rifar le muri, e pel sito di detta casa la quale non puo fabricare poiche troppo vicino alla cittadella si puo dare lire due mila di donativo non a quel conte che per giustizia non deve niente ma per mia bonta e specie di convenienza, ma che lui doni li suoi titoli e mi faccia una quitanza per abbondare in cautela, sebbene inutile dalla debolezza delle sue ragioni."
99. AST, Sez. Ia., Lettere Particolari, C, mazzo 42, July 10, 1653, Amedeo accounts for work in progress at S. Cristina, Vigna, Moncalieri, major altars in S. Carlo, S. Francesco di Paola, etc.
100. See notes 94, 95. A. Placzek, ed., Macmillan Encyclopedia of Architects, 4 vols., New York, 1982, v. I, H. Millon, "Amedeo di Castellamonte," 390.
101. Mostra, v. I, N. Carboneri, "Architettura," 1-8.
102. T. Balbiano, commannder of the Knights of Jerusalem, was Intendente Generale delle Fortificazioni degli Stati di SAR.
103. Memoriale, 322.
 ". . . avvicinandosi il tempo proprio per travalliare all'ingrandimento di Torino . . . a tale effeto nomino li seguenti ministri . . . gieneral di finanze conte Amedeo Castellamonte. . . ."
104. Borelli, January 22, 1678; Duboin, August 22, 1678.
105. AST, Sez. Riunite, Fabriche e Fortificazioni, art. 201, registro primo, 1673-74, contains the contract of October 20, 1674 for the construction of the Accademia, theatre, foundry, ballroom, portico with shops, and stables as designed by Amedeo Castellamonte.
106. Duboin, lib. VII, 484.
107. Carlo Emanuele II, v. II, 449.
 AST, Sez. Ia., Lettere Particolari, T, mazzo 35.

108. AST, Sez. Riunite, Fabriche e Fortificazioni, art. 201, registro primo, October 20, 1674.
109. Duboin, lib. VII, 941.
110. AST, Sez. Riunite, Fabriche e Fortificazioni, art. 201, registro primo, October, 1673.
When the bids were equal, the duke picked the builder he preferred.
111. Amedeo served Cristina, Carlo Emanuele II, Giovanna Battista and Vittorio Amedeo II, Turinetti, Trucchi served the first three rulers.
112. Horst de la Croix, "Military Architecture and the Radial City Plan in Sixteenth Century Italy," Art Bulletin, 1960, 42:263-290.

CHAPTER IV

BORGO DI PO: THE EASTERN EXPANSION

On the morning of October 23, 1673 the city councillors of Turin joined the ducal family in a mass celebrated by the archbishop of Turin in the chapel of the Sindone. The mass was simple, as requested by the duke, accompanied only by instrumental music. After the mass, a special prayer by the duke asked for the blessing of the enlargement of Turin about to take place.¹

The ducal family, followed by all present, exited through the door of the chapel leading to Palazzo Reale, and then through the main gate of the palace, paraded on foot to the place designated for the laying of the foundation stone, outside Piazza Castello, at the corner of today's Via Po and Piazza Castello. The processional route was flanked by infantry, while the procession itself was accompanied by Swiss guards and archers who walked to the beat of drums. The order of the procession was as follows: Duke Carlo Emanuele II, Duchess Giovanna Battista and their heir, the Prince of Piedmont, the princess their eldest daughter, the princes of the house, and the cavaliers of the blood. Present were the papal nuncio and the French ambassador. The courtiers attended in great numbers and were splendidly attired. After the members of the court walked the representatives of the city, the vicar and the judge, the councillors, and the deputies in order of seniority. The canons of

the cathedral chapter paraded with the bishop at the head of the procession singing and carrying a cross.²

A portable altar with a rich palium stood under a large tent at the site of the ceremony. On the altar were the foundation stone, a metal plaque, and the gold medals which had been commissioned for the occasion.³ Upon arrival of the ducal family before the altar, the archbishop solemnly blessed the foundation stone and medals. Then he turned towards the countryside and blessed the sites of the six new bastions, baptizing each clockwise from the north: S. Mauritio, S. Carlo, Sant'Antonio, S. Giovanni Battista, S. Adelaide, and S. Vittorio.⁴

There followed a brief performance symptomatic of the importance and intricacy of social hierarchy and protocol at the Savoy court. The Marchese di San Germano, governor of Turin presented the medals and the foundation stone to the duke, who consigned them in the hands of the Governor Balbiano, general superintendent of the fortifications of Piedmont. He in turn passed them to count Amedeo di Castellamonte, who as director of the new fortification, was in charge of placing the foundation stone and medals in the chosen spot. The laying of the stone and medals was accompanied by music, the call of trumpets, and the discharge of fifty rounds of cannon, 200 mortaletti, and the musket fire of the infantry. The roar of the firearms was followed by the applause and the cheers of the attending crowd.⁵

After the ceremony, the ducal family and the court returned by

carriage to the palace, followed by the acclamations of the assembled crowd. The building superintendents Gina and Marelli, members of the Consiglio di Finanze, remained at the site to supervise the construction of the covering wall.⁶

Neither the number, nor the detailed reaction of the crowd that assisted at the ceremony are described in the otherwise thorough records preserved in the civic archive of Turin. Precautions were taken to insure the security of the participants, but the display of the armed forces quartered in Turin can also be interpreted as a public show mounted for the benefit of the citizens.⁷ The wording of the entry in the Ordinati proves that each step had been carefully planned to insure a flawless performance. The ceremonial blessing, the first step in officially beginning the large scale building effort, could have been made in a less imposing manner, as was the foundation ceremony for the expansion of 1620.⁸ The solemnity of the event, with the duke acting as the commander, underlined and reinforced his absolute power by demonstrating it. A secretary of the city council was assigned to record the event. This documentation went beyond the need to show Turin's populace the power of the Savoy; it recorded that power for people in other cities and for future generations.⁹

In addition to the documentary evidence of the Ordinati, the foundation medals are an important corroboration for the beginning of the Po expansion.¹⁰ One side of the medal shows an elegant and dynamic representation of Carlo Emanuele II dressed in Roman armor

and tunic, his hair curly and unpowdered, in the attitude of an ancient Roman military hero rather than that of a seventeenth-century prince. In his right hand he carries a staff, while his arms form a spiral around his torso which seems to be advancing while the head is turned to show a handsome profile. The other side of the medal is more emblematic. It shows a seventeenth-century bastion with embrasures in the parapet and a cylindrical masonry tower on its flat platform. Above the crenellations of the tower there is the standard of the Savoy, with their coat of arms and the motto Arcet et auget.¹¹ The medals and the text written on the foundation stone and the accompanying plaque were engraved in 1673 by Tasniere, as part of the documentation of the Po expansion.¹² The text established the position and made public the claims of Carlo Emanuele II.

The message of the first half of the text was military and expansionist.¹³ It echoed the Savoy device Arcet et auget, to defend and to increase. Carlo Emanuele II having fortified his realm will not only defend but also enlarge the territory of the duchy, "non solum munit, sed ampliat." The prince who is secure at home can with greater confidence invade and oppress hostile territories, "nam qui sua securus possiedit, hostilia securius invadet." The text confirms the conquering hero's attire and stance represented on the medal. The major reason given for the expansion of Turin is to render the Savoy dukes secure at home, and then allow them to resume their expansionist policy, which Carlo Emanuele II had interrupted. Since Piedmont was insecurely possessed this claim was intended to shore up

the reputation of the duke.

The second half of the text clarified the history of Turin's expansions and the claims of the Savoy house over it.¹⁴ Turin had been one of the great Roman cities claims the inscription, "maximis Italiae urbibus equatam," but after being destroyed in the Middle Ages it was reborn in reduced form, "tum diro Gothorum seculo sepe dirutam, semperque angustiore specie renatam." Carlo Emanuele I had wanted to restore Turin to its original august dimensions, "ad pristinam augusti nominis amplitudine restituere Carolus Emanuel Primus voluit," Vittorio Amedeo I had been able to accomplish in part his father's wish, "Victor Amadeus magna ex parte potuit," while Carlo Emanuele II with his great spirit was about to realize that which had been conceived by the grandfather and begun by the father, "Carolus Emanuel Secundus magni avi cogitatum, ex maximi genitoris incoceptu non degeneri animo expleturus."

The ceremonial laying of the foundation stone was a pivotal moment of the planning process. It made official a project which was widely known.¹⁵ The ceremony was used to reinforce the domination of Turin by Carlo Emanuele II. It marked the end of a more than five year long gestation period during which the financing and the final design were developed. Implicitly, it marked the end of a planning process by initiating the implementation of an agreed scheme, which was to be altered only in minor aspects while the construction was underway.

The development and implementation sequence will be discussed in

chronological order in subsequent sections of this chapter in order to show that: (1) The ideological, military, and financial motivations for enlarging Turin were quite clear and articulated before construction began, (2) that methods similar to those employed by the Regent Cristina were used by the Regent Giovanna Battista to help speed the building of residential structures, and (3) through the architectural definition of Contrada di Po and the doubling in size of Piazza Castello the hierarchy of existing major streets was completely altered. In addition, the convergence of the major street of each of the three areas of Turin upon the ducal square rendered unmistakable the centrality and focal position of Palazzo Reale.

At the ceremony of the laying of the foundation stone, the sites of the six new bastions were blessed and baptized. Shortly before the ceremony, the trace of the walls, moats, and gates had been surveyed by Amedeo di Castellamonte and a team of assistants. While there were several emergency gates marked out, there was only one major gate, at the end of Contrada di Po, facing the bridge over the river. The gate was the only part of the new fortification that the city of Turin was obliged to subsidize directly. The duke took advantage of the situation and demanded an expensive marble gate. In August 1674 the duke was presented by the city council with three design alternatives that it was prepared to build. Simultaneously, the council requested the right to collect the meat tax in Turin as reimbursement for the marble decorations of Porta Castello which could have been used for the new Po gate if the duke had not unjustly

appropriated them.¹⁶ In September 1674 the duke granted both requests on condition that one of the auditors employed by the crown would become part of the commission awarding the contract for the gate.¹⁷ In July 1677 the Regent Giovanna Battista pointed out to the city council and the ducal representative that work on the Po gate was progressing too slowly. The reason was the lack of agreement between the council and the ducal representative, and the regent finally allowed the former to get along on its own.¹⁸

The gate was largely constructed between 1674-75. Construction slowed to a halt while the decoration was deliberated. After the regent's order of mid-1677 the contract was awarded in 1678, and implemented in 1679.¹⁹ The inscription tablet was installed in 1684. The implemented design of the gate was by the architect Guarino Guarini, the duke's theologian and mathematician. An engraving of the gate appears in Guarini's treatise on architecture published in 1686 (Plate 49). Earlier an engraving of the elevation and the plan of the gate were published in the 1682 edition of the Theatrum after a drawing of 1674 by Borgonio (Plate 50). The walls that flanked the entrance were angled inward in an inverted "V" shape. The three statues representing Strength, Piedmont, and Prudence in the engraving of 1682 gave way to obelisks in the engraving of 1686. The statues bearing wreaths beside the gate were replaced by niches. The gate was rusticated with piers and columns, its attic level heightened as seen in Juvorra's engraved drawings of 1722, and the statues overpowered by the military banding of the columns and piers

(Plate 51).

After the outline of the walls and moats had been traced by Castellamonte's team of surveyors, the Consiglio di Finanze announced the competition for the construction of the fortifications. Extensive discussions followed between the councillors and the various teams that presented bids. Finally, the contract was awarded to several construction masters, and a large advance payment was made. Subsequent weekly payments were preceded by checkups made by the agrimensori of the council who supervised the work in progress.²⁰ The contract included a staging program and the estimated completion date for the walls and bastions. The completion of the entire fortification was projected for the end of 1675, a rather sanguine prediction given the amount of work to be done, and the irregular supply of materials.

Payment for the fortification was the largest expense for the crown. Part of the funds were obtained from the sale of lots in the Po expansion. Before the expansion began the duke had arranged for a large loan from the city. The income from the meat tax, instituted in 1670, was earmarked for the fortification of Turin. In 1672 the duke was willing to reduce by one-third his personal expenses, the pensions he awarded, and the expenses of the ducal household. An entry in his diary in 1673 mentioned the possible use of Monte di Pieta funds.²¹

Throughout the period 1673-76 there were regular payments to the contractors in charge of building the bastioned walls and digging the

moat.²² The work on these two aspects of the construction was simultaneous, being largely an earth-moving effort. The excavated earth of the moat was placed to produce walls. These earthworks required relatively small financial investment since no additional man-made materials were needed. They were called soldier's work, a humble form of fortification which was highly resistant to cannon shot which remained imbedded in the wall.²³ The disadvantage lay in the difficulty of maintenance. The earthwork fortification had to be continually rebuilt as inclement weather, rain and snow wore it away. In Turin, and elsewhere, this problem was solved by cladding the walls with brick. This brick veneer, part of the so-called architect's work, was a more elaborate manner of fortification based on vaulting and rubble masonry, finished with well-laid brick.²⁴ While masonry fortification was less resistant to cannon, and the cost of construction was greater, it weathered well and required less maintenance than earthwork fortification. Furthermore, the masonry wall seemed stronger and may have been intended to inspire greater respect in prospective attackers by impressing them with the wealth of the fortification's builder.

Since provision of this illusion of power and wealth was strategically an important ingredient of urban fortification, the earth walls and bastions of Turin were duly clad with a layer of brickwork. Good brick was not readily available in Turin. Not all clay was considered adequate and permissions for individuals to take clay from the Po, or to build kilns was seldom granted. But the laws

formulated in the 1620s by Carlo Emanuele I that regulated the price and quality of building materials were not revived, although there was a scarcity of materials.²⁵

Unlike the bastions of the citadel, which were provided with casemates for cannon at both sides of the gorge, and defended by extruding ears, the bastions of the Po expansion had only a cannon platform (Plate 59, Plan). These platforms dominated the countryside and allowed the cannon to be used in an offensive manner. Due to the close placement of the bastions and the angle of their flanks, the curtains were easily defended. In addition, lower earthworks in the moat protected the wall curtains and were in turn defended by the covered street that girdled the entire fortification on the countryside of the moat (Plate 59, Section).²⁶ The bastions were connected by a rampart which ran on the top of the fortified walls and sloped down to the level of the city streets in front of each bastion. A wide road separated the fortification from the buildings of the city. This road was used for troop movements and for the transportation of cannon (Plate 40).

In December 1673 the builders of the fortification were obliged to accept a new contract which required them to complete the construction by October 1674, rather than 1675.²⁷ Their increased effort was to be rewarded with a higher payment. The seven marble medallions intended for the bastions were delivered in September 1674, and a premium was granted to the stonecarvers for having executed them promptly.²⁸ Seemingly, all seven bastions, the six new

ones and the enlarged old one, were ready for this final touch.

The streets of the Po expansion were laid out in an orthogonal grid. These thoroughfares continued the east-west streets of Città Vecchia and those of Città Nuova, but the dimensions of the blocks in the two areas were not equal. In addition to the new north-south streets, the east-west streets of the Po expansion were crossed by the diagonal Contrada di Po. The resulting grid is irregular since it incorporated each of the above conditions. Three north-south streets connected the northernmost east-west street to the southern side of the expansion. There were four new, continuous east-west streets (Plate 40).²⁹

The irregular grid of streets resulted in uneven size of blocks in the Po expansion. South of Piazza Carlina their north-south dimensions follow the blocks of Città Nuova, and north of Piazza Carlina the dimensions of the blocks of Città Vecchia. The diagonal Contrada di Po created several trapezoidal blocks. The larger east-west streets were traced together with the fortifications. The smaller north-south streets were opened as lots were bought and construction progressed.³⁰ The paving of the streets came last, lagging behind the construction of buildings.

The Contrada di Po was the widest street of the expansion and it was paved in 1680.³¹ Second widest were the five east-west streets. They connected, listing from north to south, the bastion of S. Carlo to Piazza Castello, the Po gate through the Città Vecchia to the citadel, the bastion of S. Giovanni to Piazza Carlina, Piazza Reale

and the citadel, the bastion of S. Adelaide to Piazza Carlina, Piazza Reale and the citadel, and the bastion of S. Vittore to Città Nuova and the citadel. On the first three of these streets the requirements for the building envelope were not altered by the regent Giovanna Battista. They were representative arteries of the expansion area, and the continuous building line of three stories was to be maintained (Plate 40).³²

Unlike the major axis of Città Nuova, the Contrada di Po followed the right-of-way of the old highway connecting the Castello gate to the Po bridge. The buildings flanking it were designed by Amedeo di Castellamonte. They had two main floors above a portico containing shops with apartments in a mezzanine. There was a third, lower attic floor. The street began in a hemicycle in front of the Po gate, entered diagonally Piazza Castello, an irregularity which was masked by the buildings surrounding the square (Plate 34).³³

Each block of the Contrada di Po was considered an entity, with rusticated corners and evenly spaced windows. Nothing on the facade suggested that there might be several buildings behind the unified front. The attic floor balconies are of later date. The windows of the second piano nobile have horizontal lintels with cornice above them and are framed by thin pilasters. The windows of the first piano nobile have alternating segmented and triangular pediments and strapwork frames. The pediments project into the areas between the first and second floor windows creating a strong vertical continuity aided also by the visual crowding of pediments, stringcourses, and

sills. The adoption of two main floors for the large urban building was not uncommon in Turin. The reconstructed Palazzo Reale had two main floors, as did the buildings defining the western edge of Piazza Castello. The origin of this elevation may be Vitozzi's design for the facades of Contrada Nuova, opened in 1615. Amedeo quotes literally Vitozzi's manner of placing the pediment high above the window making the floor look taller.

The porticoes of the ground floor have slightly rounded vaults. Their low curvature is a sophisticated version of Piedmontese vaulting and does not distract from the 1:1 ratio of the height and the width of the portico (Plate 61). The facades and the interior of the porticoes were plastered and whitewashed. Despite the length of each block, there is a strong vertical thrust, an impression created by the layered strips of openings and the shallow cornice. The voids occupy more of the elevation than solids, and when seen sideways the buildings seem to be made of a myriad of vertical lines very closely spaced.

There were seven blocks flanking the south side of the Contrada di Po, and five flanking the north side. In both size and consistency of design, Contrada di Po had no contemporary urban projects to rival it. The uniform continuous porticoed street, not favored by proprietors, was built slowly but became one of the symbols of unified Italy after the 1870s when a version of it was constructed in every large Italian town.³⁴ The plastered and whitewashed facades were in strong contrast with the buildings

inhabited by the ducal family, and the ducal administration which were of unplastered brick. Almost as though challenging the high cost of materials and the lack of good craftsmen, the buildings of the ducal program as well as the fortifications were finished in brick.³⁵

Turin had no marble quarries in its vicinity. The local stone was not of good quality; granite and travertine were not available. It seems that even high-quality brick was hard to produce.³⁶ Its occasional use may have been construed as a sign of poverty since it meant lack of stone, or means of transporting stone.³⁷ In Turin this poverty became a point of pride; it was consistently displayed and made part of the building program. The ducal buildings of brick were distinguishable in the urban fabric by the contrast they formed with privately built structures. The austere, massive buildings of exposed brick made a virtue of their poverty, and impressed with their force. Part of this force came from the visual association between the ducal buildings and the fortifications of Turin, whose wall and bastions were also of exposed brick. This extensive and unabashed use of brick celebrated the victory over the initial handicap and the resolute severity of the local architectural language. It represented the unbendingly proud military spirit and thrifty alpine frugality which imbued the character of the Dukes of Savoy. Finally, the equation between the ducal palaces and the fortifications showed that ideologically the Dukes of Savoy were identified with the defenses of their town.³⁸

The major open spaces of the Po enlargement, the enlarged Piazza Castello, the Piazza Carlina, and the Piazza Carignano continued the theme of the exposed brick. The new Piazza Castello was the mirror image of the original square west of the Castello, from which it was separated by the galleries connecting the Castello with the Palazzo Reale to the north and with the palace of Marchese di S. Germano to the south. The facades of the western half, designed by Vitozzi in 1608 and composed of one repeated bay, were copied for the definition of the new half of the square (Plate 52). The buildings at the north and east sides, intended for the ducal administration were clad in exposed brick, whereas on the south and east sides below Contrada di Po the buildings were plastered and whitewashed. The two domains, co-existing around the same large square, could be easily distinguished. However, the palaces of the nobility were not built behind the uniform facades, as they had been built behind the facades of Piazza Reale. Instead, many were built along the side streets, as free-standing structures.³⁹

A third street opened from the south side of the new Piazza Castello connected the square to a piazza opened in front of the Palazzo Carignano, whose importance was second only to the Palazzo Reale.⁴⁰ The square was defined by the palazzo Carignano and the theatre which faced it. The former was built in exposed brick by Guarini, as was the Collegio dei Nobili which faced partially on the square.⁴¹ Guarini was crucial in refining the aesthetic of exposed brick, which was traditional in his hometown of Modena, as well as

the other towns along the Po. The clay used in the manufacture of bricks came from the Po, and explains the striking similarity of the color of brick found in these towns.⁴²

Piazza Carlina was the only square of the Po expansion planned as an entity. In 1675 Giovanna Battista had listed it among the sites which were under ducal tutelage.⁴³ Houses around it had to be of uniform height and decorated as prescribed in the design of Amedeo di Castellamonte. The square was one of the most important elements of the ducal planning program. The intention was to match Piazza Reale, the urban masterpiece of Città Nuova. It was designed as an octagonal space, which caused problems in land measurement and subdivision. Giovanna Battista renounced the uneconomical design and changed it to a traditional rectangular square with two streets crossing it.⁴⁴ The regulation for the building was maintained. Four corner lots facing on the east-west streets and away from the square were zoned for the construction of one building each. After the transferral of the marketplace, four pavilions destined to shelter the vendors were built by the city within the remaining area.⁴⁵

In July 1674 Carlo Emanuele II had asked his Consiglio di Finanze to request bids for the construction of an academy, with a ballroom and chapel, a theatre, a foundry, a portico with shops, and stables.⁴⁶ After lengthy deliberations the contract was settled in October 1674. It is notable since the payments agreed upon were based on the price of various kinds of masonry per linear trabucco. The construction was measured as building proceeded and the contracts

were paid accordingly. The excavated earth was to be taken to the bastion of S. Mauritio.⁴⁷ The contract did not include handcarved stone finishes and the iron needed for locks which were provided separately by the ducal treasury. This may well mean that the details had not been designed yet. The four chief contractors, of whom one also worked on the fortifications, were given the right to carry arms for the duration of the enterprise. This special permission raised the contractors' social rank (only nobles and the military were allowed to carry arms) and incorporated them within the crown's bureaucracy.

The completion date was part of the contract. Amedeo di Castellamonte was to instruct the contractors regarding the materials to be used as the project advanced.⁴⁸ The academy, foundry, theatre, and stables were located on the north and east side of Piazza Castello. A portico with shops connected the theatre and the academy to the gallery of the Palazzo Reale. This wing later became the secretariat of the ducal government. They are the buildings which with their exposed brick cladding continued the ducal settlement from the Piazza Castello into the Po expansion. Piazza Castello probably looked like a large construction site, and although begun in 1678, as late as 1683 its pavement had not been completed.⁴⁹

Beside the convents and the ducal buildings, the major institutions to settle in the Po expansion area were the university, the poorhouse, and the hospital. The university moved into the Po expansion in 1720.⁵⁰ Its design was by M. Garove, a close follower

of Guarini, and the cost of construction was shouldered by the city. It occupied the entire second block east of Piazza Castello, across from the academy. The central rectangular cortile of the university is parallel to the street at its north. Consequently, between the cortile and Contrada di Po there is a volume with a wedge-shaped plan (Plate 53). In order to comply with the building code of Contrada di Po, the porticoed facade on that street was plastered and whitewashed, whereas the side elevations and the facade on the north side were finished in unplastered brick (Plate 62).

The transferral of the Ospedale di Carità to its site on Contrada di Po had a long and intricate history. The hospice had owned land in the Po suburb, some of which had been taken by the crown for the construction of the fortifications and exchanged for an equivalent parcel within the new enclosure. The Ospedale occupied in entirety the second block from the Po gate on the north side of the street. Its principal facade conformed to the obligatory code of height and color, while the sides and the back were of exposed brick. The building was organized around several cortili, using the generic hospital plan in a modified manner (Plate 54). It was separated from Contrada di Po by a wing of individual apartments that were rented.

The hospital of S. Giovanni was rigidly carried out following Amedeo di Castellamonte's plan. Begun by him in 1680, it was completed by G. B. Baroncello in 1689 and paid for by the crown and the city. It was made of two long wards which crossed, and were surrounded by wings with which they formed four interior cortili

(Plate 55). There was a chapel at the crossing of the wards. The four facades of exposed brick were of monumental dimensions. The main elevation consisted of three stories with taller central and end pavilions, but the wards were only on two floors. Architectural detail and ornament were reserved for the vestibule and the grand staircase connecting it to the wards. The military character of this decoration (the column shafts were banded and rusticated) did not belie the overall effect of the building which is one of vastness and of massive melancholy (Plate 56). Like the university, the hospital originally had its quarters in Città Vecchia. Half of the site needed for construction was donated by the crown. The transfer to the Po extension sites permitted the full development of these institutions. Henceforth, their function would be associated with a distinct building type.

As seen in the repeated edicts of the regent Giovanna Battista, and those of Vittorio Amedeo II, the crown experienced difficulties in convincing property owners in the Po expansion to follow the building code. The regent conceded in her last edict the possibility of building two-story houses, but the regulations were maintained for the major streets and squares.⁵¹ Nobles were not given lots as presents, and thus had no impetus to build. The lots available were built far from the center. The building of palaces took place after 1685 and mostly along those north-south streets close to Citta Nuova where the restrictions had been lifted, allowing large gardens and courts.⁵²

The building code of the major streets and squares implied tall, large buildings whose capacity was likely to be superior to the needs of even an extensive, wealthy family. The result was the appearance of the apartment house, especially along the Contrada di Po. The social arrangement vertically was the same as that of an aristocratic palace, but the inhabitants living on different floors were no longer related to one another.⁵³

The slow pace of the second expansion may also have been due in part to the necessity of adapting to this new building type, which was an effect of the aulic inclinations of the Savoy. Building materials of good quality continued to be scarce and costly. In 1675 the population of Turin was only 40,000.⁵⁴ This surprising lack of growth may have also deterred the quick development of the Po expansion. While the documents regarding the precise development of the area are lacking, the patterns of land ownership can be deduced from the suits that the crown brought against landlords between 1673-1703 in pursuit of the differential of three-fifths owed to it on the increased value of property after the expansion. The owners were merchants, workers, and craftsmen, a likely mix of occupations in view of the fact that the area had been a prosperous suburb.⁵⁵

An important characteristic of the Po expansion is that it was accomplished largely without the help of the aristocracy. The entire southeast portion, between Piazza Carlina, the walls and the street of the Annunziata was bereft of major buildings, with the exception of the hospital. This was understandable since the area had no

direct connection to Piazza Castello or the major gates. The few aristocratic palaces ranged near Palazzo Carignano, and from the second decade of the eighteenth century they can be found near Piazza Reale.⁵⁶

As discussed above, the streets of the Po expansion continued the orthogonal grid of both Città Nuova and Città Vecchia. The three east-west streets of Città Nuova were continued in the Contrada della Madonna, the Contrada di Spedale di S. Giovanni, and Contrada di S. Filippo (Plate 40). The major street of Città Vecchia, the decumanus was continued on the other side of Piazza Castello with Contrada dell' Accademia. The streets flanking Palazzo Carignano were the continuation of S. Tommaso and Doirata streets. The blocks of the Po expansion were larger than those of Città Nuova and more irregular.

At the periphery these blocks were surrounded by a street that separated them from the bastions. Lots facing into this ringroad were the least desirable lacking in view, commerce, and potentially endangered (Plate 37). However, the road that separated civilians from military activity produced a bypass system that was not possible in Città Vecchia where the houses were built next to the fortifications (Plate 39). The new military requirements demanded the wide and straight streets, and it was the military spirit which maintained the order and regularity of the layout. The streets were not focused on bastions as proposed in military treatises, although each bastion could be easily reached from a city street. The focus

of the urban design was on the ducal palace, while the military defenses had been decentralized, separated among the bastions and the citadel.

The citadel was easily accessible from the expansion area. Its relation to the center had always been strategic rather than direct. After the Po expansion its strategic function diminished, but it remained, together with the ducal palace and the Castello, a retreat for the crown and an observation center from which the city was watched and dominated. Given the width and regularity of the streets, Turin could be crossed easily by soldiers and cannon, but there was no need for them to enter the city. The military camp layout of Turin was enough of a reminder to the population of the authoritative government whose power could be speedily enforced. The sixteenth century military ideal of a city with radial streets connecting each bastion and gate to the centrally located palace of the prince was echoed by the axial streets which connected the ducal compound to the main gates. Military planning determined the form adopted for the perimeter of the city. The view of 1670 showed the walls of Turin enlarged from the original square to an almost perfect oval. The western extension that this fortification design implied was realized in 1706, while the only flaw in the wall, the connection between the Bastion Verde and the bastion of S. Maurito was resolved partially by Carlo Emanuele II (Plate 39).⁵⁸

* * * * *

The idea to expand Turin towards the Po was actively considered

from 1669. Simultaneously, a decision was taken by the crown to publish a comprehensive atlas of the towns of Piedmont and Savoy. Carlo Emanuele II charged Pietro Gioffredo, librarian and historian of the House of Savoy, to write the introduction and the description of the plates which were to be made under the direction of Gian Tommaso Borgonio. Since the size and the quality of the work exceeded the abilities of the local printers, the respected Johann Blaeu of Amsterdam was engaged to do the publication. The company had published bound atlases with maps and views of cities. The lawyer count G. F. Calcagni was to supervise the entire works, maintaining contact between Turin and the Blaeu office in Amsterdam.⁵⁹

Most of the plates and the text were assembled in Amsterdam at the beginning of 1671 because in February of that year they were lost in the fire that consumed almost entirely Blaeu's printing shop. Only the portrait of Carlo Emanuele II survived, and the duke gave order to commence the project from the start. The work continued very slowly and in 1674 the Blaeu shop did not yet have a complete set of drawings.⁶⁰ Due to lack of funds the project stopped almost entirely after the death of Carlo Emanuele II. His heir Vittorio Amedeo II was asked for help in 1679, and the publication was finally completed in 1682, some fourteen years after its inception.⁶¹

The title of the atlas is Theatrum Statuum Sabaudiae Ducis, Pedemontii Principis, Cyprus Regis. . . . It consists of two folio volumes of Piedmont and Savoy towns, respectively. The first volume

begins with a frontispiece representing Piedmont, a warrior surrounded with the bounties of nature and study. There follows the title page, the portrait of Vittorio Amedeo II, the stemma of the Dukes of Savoy, the portrait of Carlo Emanuele II made in 1668, the epitaph to Carlo Emanuele II composed by Emanuele Tesauro, the portrait of Giovanna Battista made in 1678, the dedication to Giovanna Battista, the geneological table of the House of Savoy, the map of Piedmont, and twenty illustrations of Turin followed by forty-four illustrations of ducal villas, towns, and fortresses in Piedmont. Of the twenty plates which illustrate Turin, several are important for the history of the expansions.⁶²

Plate I, 16a is a projected plan of Turin in which the expansions that had been considered prior to 1669 are shown as though completed to the south, east, and west (Plate 35). The 64-item legend identifies all the churches and many of the more important palaces in the city. The illustration was probably drawn between 1671-74. The original had been lost in the fire of 1671, and a payment order was recorded in the Ordinati of the city council in April 1674 for a new plan of Turin. The plan is quite accurate in its representation of the Po expansion area, although fewer streets than shown were actually opened. The expansion to the west, included in this plan, had been considered in all post-1650s studies, most notably in the one by Vauban (Plates 26-29).

Plate I, 16b is also by Borgonio. It is a view of Città Vecchia with Città Nuova, and the citadel, and predates the expansion of

1673. Looking directly west, with Piazza Reale and Piazza Castello in the foreground, it illustrates the urban and architectural achievements of the preceding generation of Savoy rulers. Complemented by a 44-item legend, it is the earliest view of Citta Nuova as a finished and integrated part of town (Plates 17, 37, 38).

A "portrait" view of Piazza Reale from the north shows it as a market place and a meeting ground (Plate 57). The church facades and towers are imaginary. The figures may have been inserted later, perhaps in Amsterdam, as were the figures in the plate which illustrates the west side of Piazza Castello (Plate 58). They both show urban conditions which predate the expansion of 1673. A view of the enlarged Piazza Castello shows its connection to the Po expansion (Plate 52). Less detailed than the view of Citta Nuova and Citta Vecchia which described existing conditions, this view emphasized the continuity and uniformity of the buildings which were planned, but not yet implemented, in the Po expansion area. However, since construction of the ducal buildings illustrated here began in 1674, the view is likely to have been complete by that time.

In the views, buildings are shown as shallow wings; they resemble walls which define the space of the squares rather than containers of space. The uniformity of the architectural vocabulary, and the even cornice height were not the only characteristics of the plan for the expansion of Turin. In the view of Città Nuova, the Contrada Nuova stands out because of the continuous cornice height of the buildings flanking it, while the other streets have irregular

rooftlines. In the illustration of the original Piazza Castello the space was endowed with individuality by the figures which populate it. In the view of the Po expansion, the figures are reduced to scattered elements in the rigidly controlled urban environment within which they seem lost.

The alienation gleaned in the larger-scale views is important in this context. It may have been the outcome of the large dimensions of the enterprise which rendered accuracy difficult, and the lack of thorough coordination between the draughtsmen. The variety of illustrations used for the Turin "portraits," bird's eyeview, perspective, elevation, section, and projected plan may have made systematical consistency impossible. In its inception the urban atlas may have been intended as a celebration of Turin as a capital.⁶³ Since Carlo Emanuele II had not contributed to the urbanism of Turin, except for the rebuilding of Palazzo Reale, this was also a good occasion to insert himself within the tradition begun by Emanuele Filiberto, and continued by Carlo Emanuele I, Vittorio Amedeo I and Cristina, in which the expansion of Turin and its fortification were conceived as a way of reinforcing ducal authority. The atlas would have made public his intentions to expand Turin in a prestigious manner.

There were not many precedents for this kind of publication. The first collections of maps in atlas form had been published around 1570 in Italy. Even after that date maps continued to be sold individually, in sheets.⁶⁴ While collections of views of towns were

made in Germany in the last quarter of the sixteenth century, they were not nationalistically conceived.⁶⁵ Rather, they were a diluted version of maps and views originally intended for military use. Innovations in cartography had come about as a response to the military need for accurate maps of fortresses and surrounding topography, and had developed simultaneously with cannon fortifications, which also required sophisticated surveying abilities.⁶⁶

Thus, the Theatrum was not the first such atlas. But it was among the earliest systematic representations of the capital, urban, and rural settlements comprised in one nation and governed by an hereditary dynasty. Specifically, in this focus upon the urban environment, the repetitive formal aspects of Turin, Duke Carlo Emanuele II brought to a logical conclusion the planning and implementation process of the enlargement of his capital city. The streets, squares, and buildings were articulately designed, consistently built, and in the atlas that achievement was made known to the rest of the world. The atlas forecasting the finished urban product was intended as witness to the original intentions and hopes. Had the intended expansion failed, the Theatrum would have served as a document of foiled ambitions. Since the enlargement was successful, the atlas can be considered a document of the perspicacity of the patron and the architect, for not only was the town designed and built, but its intended polemical attributes were claimed as essential characteristics in a circulated publication.

The city as defined by its fortification enclosure after the expansions to the south, east, and west were completed and can be seen in a view of 1706 (Plate 30).⁶⁷ There are two omissions which raise questions about the accuracy of the view. S. Salvatore, which was a milestone between the south gate and Villa Valentino, and the hill of Superga, which served as an observation point during the Siege of 1706, are not shown. But the drawing is minutely detailed, showing accurately the fortifications. It also demonstrates that the construction effort had been successful in the Po expansion which seems fully settled. Furthermore, the title of the drawing, Schenografia della città e cittadella di Turino, documents an accurate understanding of the city as a stage backdrop and frame for the unfolding human activity.

NOTES TO CHAPTER IV

1. The entire ceremony of the laying of the foundation stone is recorded in ASC, Torino, Ordinati, v. 197, 382-92.
2. The sequence in which the participants of the procession paraded, their attire, etc. is detailed minutely in ASC, Torino, Ordinati, v. 197, 382-392.
3. Carlo Emanuele II, v. II, 365.
4. The bastions were named from the northeast corner of Città Vecchia towards the Po, and then clockwise to the southeast corner of Citta Nuova.
5. ASC, Torino, Ordinati, v. 197, 382-92.
". . . indi una salva di moschette di tutta l'infanteria . . . successe il tuono di ducento mortaletti et lo sparamento di tutte le bombarde ch' erano all mura della città. . . ."
6. ASC, Torino, Ordinati, v. 197, 382-92.
". . . rimanendo assistenti al luogo dove fu deposta la pietra due ssri. ill.mi Aud.ri Camerali Horatio Gina e Pietro Marelli finchē fu fabricato tanto di muro che coprisse la pietra. . . ."
7. I. Jori, La casa militare alla corte di Savoia, Rome, 1928, 36-42.
In 1673 there were six companies in the personal guard of the ducal family, totaling 348 attendants. It has been impossible to calculate the number of soldiers present in Turin at the time, outside the guard.
8. The city councillors had been asked in the morning to attend the ceremony held the same afternoon. See Notes to Chapter II, n. 55.
9. ASC, Torino, Ordinati, v. 197, 382-92.
". . . li ssri. della città di Torino faranno rogar un atto publico di tutta questa fontione con l'ordine e il modo essatam.e e distinto in essa conservato per custodirlo nell'archivio ord.e. . . ."

10. There are no extant gold foundation medals. I have been able to find two versions of the medal, both of silver, but of two sizes. See Plates 45-48.
The Soprintendenza, Torino has the form used for the making of the larger version of the medal, in lead.
11. "To fortify and to expand," or "To defend and to increase."
The round masonry tower is incongruous with the modern bastion on which it stands, and which serves as platform for the cannon. In the seventeenth century higher platforms were occasionally placed on the bastion, called the cavagliere, and used for offensive firing into the countryside. However, the cavagliere was usually low in order not to become a visible aim for the cannon of the besieging army.
12. Carlo Emanuele II, v. II, 365; I. M. Ricci, ed., I rami incisi dell'archivio di corte: sovrani, battaglie, architetture, topografia, Turin, 1981, M. Pollak, 174-175.
13. Primarij Lapidis inscriptio et
Adversum numisma aureum
Cum Regiae Celsitudinis effigie
Carolus Emanuel II
Allogobrum Dux, Cypri Rex.
Caetera ditioe fidis arcibus communita
Ipsum ditioes cor, ad sui cordis exemplum
Non solum munit, sed ampliat.
Nam qui sua securus possidet,
Hostilia securius invadet
Et amplior quo pressior infestos infestabit.
Die XXIII Octobris Anno MDCLXXIII

Inscription on the foundation stone and verso of gold metal
With portrait of his Royal Highness
Carlo Emanuele II
Duke of Savoy, King of Cyprus
Having fortified the entire territory
Defended it with trustworthy fortifications
Does not only defend but enlarges the heart of the homeland
He who is secure in his possessions
Can more confidently invade hostile territories
He can prosecute more incisively
The more secure he is at home.
October 23, 1673.

14. Alia lapidis incriptio
 Metallo incisa et aversi numismatis symbolum
 Augusta Taurinorum
 Triumphali Caesaris Augusti Magnificentia
 Maximis Italiae Urbibus aequatam
 Tum diro Gothorum saeculo saepe dirutam
 Semperque angustiore specie renatam
 Ad pristinam augusti nominis amplitudine restituere
 Carolus Emanuel Primus voluit
 Victor Amadeus magna ex parte potuit
 Carolus Emanuel Secundus
 Magni avi cogitatum, et maximi genitoris incoeptu
 Non degeneri animo expleturus
 Aspirantibus deiparae Virginis auspicij,
 Auguralem hunc lapidem iacit.
 Die 23 Octobris Anno a virgineo patu MDCLXXIII

Another inscription on the foundation stone engraved on metal and
 On recto of coin the symbol of Turin
 Through the magnificence of Augustus Caesar
 Made equal to the greatest of Italian cities
 Although often destroyed in the dark centuries of the Goths
 It was always reborn, but in ever more reduced form
 Carlo Emanuele I wanted to restore it to its original splendor
 Vittoria Amedeo the great succeeded in realizing this plan
 partially
 Carlo Emanuele II, who is about to complete, with not an unworthy
 soul,
 What his great ancestor had conceived and his father had begun
 Requests the protection of the Virgin, mother of God
 Placed this foundation stone, October 23, 1673.

15. BAV, Barb Lat., 6371, f. 125, March 2, 1669.
 ". . . di Genova scrivono . . . che il Serenissimo Duca di Savoia
 voleva con un novo recinto di mura e fortificationi ingrandire la
 citta di Torino. . . ."
16. ASC, Torino, Carte Sciolte, n. 1540, August 9, 1674.
 ". . . havuto anche riguardo che V.A.R. si e valso delli Marmi
 che servivano d'ornam.to a Porta Castello quali di gia lo
 supp.nte haveva disegnato di far entrare in quello di detta Porta
 Nova. . . ."

17. ASC, Torino, Carte Sciolte, n. 1540, July 17, 1677.
 ". . . vedendo quanto lentamente si vadi avanzando la
 construtione della nuova Porta del Po a causa che da noi stessi
 non puotete contrattare e stabilire i prezzi di marmi necessarij
 per essa salvo con intervento d'uno degli auditori . . . conforme
 alle patenti delli tre settembre mille seicento settanta
 quatro . . . percio dispensandovi dall'osservanza di dette
 patenti. . . ."
18. See n. 17, above.
19. ASC, Torino, Carte Sciolte, n. 1537, Ristretto della spese di
 Porta di Po com.e in questo all'infradesign.e carte.
 Total payment between 1674-90 = 87,937.11.9, with the highest
 payments in 1675, 1676, and 1680.
20. AST, Sez. Riunite, Fabriche e Fortificationi, art. 201, registro
 primo, 1673-74.
21. Memoriale, 164-5, 323.
22. AST, Sez Riunite, Fabriche e Fortificationi, art. 201, 673-74,
 1674-75, 1675-76.
 payments in 1673: L. 55.000
 1674: L. 385.000
 1675: L. 81.000
23. Diderot and D'Alembert, eds., Encyclopedie ou dictinaire raisonne
 des sciences, des arts, et de metiers, Paris, 1751-65, v. VII,
 191-204.
24. Ibid.
25. AST, Sez. Riunite, Fabriche e Fortificationi, art. 201, registro
 primo, 43, October 12, 1673.
 The contractors employed by the government were given permission
 to build kilns in the Valentino. The two problems of the first
 expansion, low quality materials and too small a labor force, did
 not plague the Po expansion since the construction was contracted
 out entirely.
26. For the payments for the fireworks see AST, Sez. Riunite,
 art. 201, registro primo, 36, January 12, 18, 26, February 2, 9,
 1675.
27. AST, Sez. Riunite, Fabriche e Fortificationi, art. 201, registro
 primo, 82, December 29, 1673.

28. AST, Sez. Riunite, Fabriche e Fortificationi, art. 201, registro secondo, 12, October 12, 1672.
29. The through north-south streets were S. Francesco di Paola (S. Michele), Collegio Provincie (Zecca) and S. Pelagio (Ospedale). The other north-south streets were S. Gio. di Dio, Ghetto (Universita), Uffizzi (Annunziata). The east-west streets were from north to south Accademia which continued in the Doragrossa, Graneri which continued in S. Tommaso, Magazeni (Carignano) which became Doireta in Citta Vecchia; S. Filippo continued into S. Teresa in Citta Nuova; Madonna degli Angeli continued in Arsenale of Citta Nuova.
30. The opening and leveling of the streets in the Po expansion is documented in the payment orders. See AST, Sez. Riunite, Fabriche e Fortificationi, art. 201, registro secondo, 50, February 16, 1675, street between Castello and extension area; 177, October 26, 1675, street in front of S. Filippo Neri; 179, November 26, 1675, streets opening into Piazza Castello; registro terzo, 32, January 12, 1676; 33, January 25, 1676, street coming from citadel; 42, February 13, 1675, street in front of Carita; 45, February 21, 1676, list of opened streets; 52, March 10, 1676, street between Annunziata and Accademia; 64, March 31, 1676, Spedale di S. Giovanni; 73, May 17, 1676, Collegio.
31. M. Passanti, Lo sviluppo urbanistico di Torino, Venice, 1966; Forma urbana, v. I, t. II, 1199-1210.
The street is 18 meters wide, exclusive of the porticoes; the height of the cornice is also 18 meters. Like the space of the street, the porticoes are also square in section.
For payments for the paving of Contrada di Po, see AST, Sez. Riunite, art. 200, registro primo, May 16, 1680; art. 205, registro terzo, May 21, 1680; art. 201, registro primo, November 7, 1680.
32. The three streets for which the building envelope was not altered were Magazeni, S. Filippo, Spedale di S. Giovanni.
33. The second main floor is lower than the first main floor. The first main floor is separated from the arches of the portico and from the floor above by a wide stringcourse whose horizontality emphasizes the perspective of the street and unifies the block.
34. These streets are still visible in Genoa, Bologna, Milan, Florence. For the slow construction see AST, Sez. Riunite, Fabriche e Fortificationi, art. 199, February 12, 1688.

35. Despite the plaster and paint that now covers Palazzo Reale, there is some evidence that before the arrival of Juvarra and the construction of the facade of Palazzo Madama, the ducal buildings were consistently unplastered. This is still visible on the north, east, and south sides of Palazzo Madama, the cortile and garden facades of Palazzo Reale, the library, originally the galleria, the facade and cortile of Palazzo Chiabrese, the portico on the northeast side of Piazza Castello, the north and side elevations of the Università, the north and side facades of the Carita, all four elevations and the cortile of the Hospital of S. Giovanni, the facade and cortile of the Accademia. Since payment for construction after 1663 was computed according to nature and length of wall built, most building contracts specify the nature of the wall. The contract for the Gran Galleria, between the Castello and the Palazzo Reale, called for ordinary wall, and described it as four courses of stone and rubble masonry, and one course of brick. See AST, Sez. Riunite, art. 195, registro terzo, September 25, 1674. The contracts for the other ducal buildings in the Po expansion stipulate similar construction. If the intention had been to plaster the rubble masonry wall, the additional brick course would have been unnecessary. The dichotomy of plaster vs. exposed brick is also illustrated in Juvarra's work. The Quartieri Militari, fulfilling a ducal and defensive function are somberly decorated and clad in brick whereas the civic oriented piazza at Porta Palazzo, adjacent to a traditional, popular market, was plastered and vividly painted and decorated.
36. That the quality of bricks was often poor is demonstrated by the series of ducal edicts and orders which attempted to enforce a consistent standard. See AST, Sez. Riunite, art. 200, registro primo, March 8, 1679.
37. There were some Renaissance examples of monumental residential architecture built in brick, notably the palaces of cardinals in Rome. But Florentine, Venetian and more importantly French palaces were clad in hand-cut stone. In addition the public palace type established by the buildings on the Campidoglio was the standard towards which the Dukes of Savoy probably aspired, and was also finished in stone.

38. The citadel was the first Savoy fortification which capitalized on the expressive qualities of brick. Brick had been used for city walls and towers by the Romans, and also in the intervening centuries. Two telling examples might be the Porta Palazzo in Turin, a Roman construction, and the enclosure of Montagnana of the mid-thirteenth century. While it was used in domestic architecture before the seventeenth century, construction was haphazard. The "rustico" appearance of buildings in Turin which the crown repeatedly orders to be plastered and whitewashed was surely a rough rubble masonry construction left exposed, incomparable to the dark red brick, elaborately formed in Guarini's buildings, with which the ducal buildings were clad. The architecture of the citadel, Paciotto, was closely associated with two other buildings whose principal external character also comes from the combination of large size and brick cladding, the Palazzo Farnese in Caprarola, and the Palazzo Farnese in Piacenza. Since in the Renaissance the use of plaster on the exterior of building was intended to simulate marble or stone facing; it was a snobism in reverse to flaunt a well-crafted brick facade rather than accept the lie of plaster and paint. The polarization of the finishes of ducal and private buildings endowed them with political significance and showed the extent to which architecture and urban design were manipulated by the Dukes of Savoy and their architects. The polarization was also accurate. The red walls and the bastions and the ducal palaces were paid for by the crown, whereas the white gates and the white buildings were subsidized by the citizens. Such a notable exception as the Porta Palazzo, an inherited architectural monument, helped to prove the rule.
39. Amedeo di Castellamonte built three palaces in Citta Nuova in the 1670s. There is one palace attributed to Guarini, built in the same area. Juarra built one palace in each part of town (Citta Vecchia), Citta Nuova, Borgo di Po). Garove built two palaces in Borgo di Po, Plantery one each in Città Nuova and Città Vecchia, while Baroncelli built one palace in Borgo di Po and finished one in Citta Vecchia. The figures are four palaces in Borgo di Po, six palaces in Città Nuova, and three palaces in Citta Vecchia built over the same period.
40. The Carignano-Soissons were a cadet branch of the House of Savoy, and during the youth and early manhood of Carlo Emanuele II and the regency of his widow, the possibility of their succession was ever present.
41. Mostra, v. I, N. Carboneri, "Architettura," 1-8.

42. A. M. Matteucci, Palazzi di Piacenza, Turin, 1979, A. M. Mateucci, ed., Società e cultura nella Piacenza del Settecento, Piacenza, 1979.
43. Borelli, 933.
44. Borelli, 934, January 22, 1678.
 ". . . sendovi stato rappresentato che la forma prescritta alla sudetta piazza Carolina di figura ottangolare haverebbe cagionata molta incommodita alli particolari, che havessero in pensiero di fabricarvi case, attesa l'obligatione delli angoli e strade oblique di detta figura ottangolare, percio per facilitar la vendita di siti e la fabrica d'essi habbiamo fatto ridurre detta piazza a figura quadrata. . . ."
45. Duboin, lib. VII, 942.
46. AST, Sez. Riunite, Fabriche e Fortificationi, art. 201, registro primo, 16, October 20 1674.
 The first set of bids received after the announcement of July 28, 1674 were too high. Another announcement was made which resulted in equally low bids from several contractors; Carlo Emanuele II chose the ones he preferred.
47. AST, Sez. Riunite, Fabriche e Fortificationi, art. 201, registro primo, 16.
 The construction was to be finished within one year, in October 1675. The description of various types of construction makes this document valuable; ordinary walls were of four courses of stone with brick cladding; the most expensive walls were made of brick only, and were thinner than the rubble masonry walls.
48. AST, Sez. Riunite, Fabriche e Fortificationi, art. 201, registro primo, 16.
 This is a stipulation which may explain the lack of drawings, and also provide the opportunity to alter the design when the building was already under construction. The measurements of the work were made following the law promulgated by Vittorio Amedeo in 1633. This law consisted of 36-points and had been devised by the city council and Carlo di Castellamonte in an attempt to avoid misunderstandings and fraud. See also Duboin, lib. VII, June 11, 1633.
49. AST, Sez. Riunite, art. 200, registro primo, July 6, 1678, Fabriche e Fortificationi, art. 199, registro quarto, December 1, 1683.
50. Mostra, v. I, N. Carboneri, "Architettura," 37.

51. Borelli, 933, January 22, 1678.
The major streets and squares were Contrada di Po, Contrada della Cittadella, Piazza Castello, and Piazza Carlina. The other major urban spaces, the Contrada della Accademia, and the Piazza Carignano were entirely defined by ducal buildings, or those of close associates of the crown.
52. The north-south streets close to Città Nuova are Collegio and Annunziata. Three of the four palaces built in Borgo di Po were on these two streets. See note 39 above.
53. See S. J. Woolf, "Some Notes on the Cost of Palace Building in Turin in the Eighteenth Century," Atti e Rassegna tecnica, 1961, 299-306.
There were shops and storage on the ground and mezzanine levels, court officials on the piano nobile, professionals on the second piano nobile, while the attic was occupied by craftsmen and artists.
54. G. Prato, "Censimenti e Popolazione in Piemonte nei Secoli XVI, XVII, XVIII," Rivista Italiana di Sociologia, 1906, 10:3/4.
55. AST, Sez. Riunite, Archivio Camerale, art. 552, 1670-1741, appartemente all'inventario n. 257.
This understudied articolo contains abundant documents establishing the claims to property in the Po expansion area filed by private citizens.
56. Amongst them are the extant Palazzi della Valle, Pozzo della Cisterna, and Asinari di Marzano.
57. The by-passing system of orthogonal street grid and oval fortification enclosure were the dominant features of the military planning, made possible by the ex-novo expansion. The realization of this articulate design, explored in several studies, as initially planned is an important aspect of the success of the expansion.

58. Memoriale, 358.
 ". . . avendo visto l'efetto cattivo che fa all'occhio l'angolo rientrante nella metta della cortina fra il bastione detto verde e quello di S. Mauritio ho stimato di farlo riparare, con il tirare la muralia di detta cortina in retta linea con che non si offende la fortificatione e in effetto si fa meglio la difesa.
59. Carlo Emanuele II, v. II, 590.
60. Carlo Emanuele II, v. II, 591-93.
61. Carlo Emanuele II, v. II, 594.
 A partial bill of 1682 described the massiveness of the work:
- | | |
|------------------------------|--------|
| the frontispiece | L. 800 |
| the three geographical plans | 1000 |
| the geneological table | 250 |
| the large plan of Turin | 250 |
| 65 plates at L.150 each | 9750 |
| 3 smaller plates | 220 |
| 67 plates at L.150 (v. II) | 10050 |
| 4 smaller plates | 300 |
| binding for 150 (copies?) | 5600 |
| coloring for 4 copies | 680 |
- 50 copies were sent to Turin in addition to four colored copies.
62. Theatrum.
 See also, F. Rondolino, "Per la Storia di un Libro," Atti della Societa di Archeologia e Belle Arti per la Provincia di Torino, 1905, VII, 314-59.
63. G. Guidoni and A. M. Guidoni, Storia dell'urbanistica: Il Seicento, Bari, 1979, 420.
64. R. V. Tooley, "Maps in Italian Atlases in the Sixteenth-Century," Imago Mundi, 1939, III, 12-47.
65. For example, Braun and Hogenberg, Civitates urbis terrarum, (1572-1618), Amsterdam, 1965.
66. Most of the military treatises from the second half of the sixteenth century published in Italy contain chapters on survey methods, deemed essential for the layout of the bastioned trace.
67. Cat. 30.

CHAPTER V

THE LITERATURE OF MILITARY ARCHITECTURE

The descent of Charles VIII into Italy at the end of the fifteenth century with an army outfitted with heavy cannon marked a watershed in the history of military strategy. In the wake of his conquests in the Italian peninsula, the vanquished princes and communities had to reconsider the defensive systems utilized until then in their respective cities. The use of cannon required major change in the defensive fortification of towns. In order to meet this need research was done and books were written and circulated.¹

The fortification of towns, previously designed by architects, became the domain of specialists, the military engineers. The cultural background of engineers varied greatly; none had a formal education. Often they were military men, strategists specialized in the use of artillery which required knowledge of geometry and of the speed and trajectory of projectiles. Their knowledge of architecture was largely pragmatic, concerned with the use of materials and their strength in resisting the impact of cannon balls, the ventilation of the shooting chamber, and the defense of the bastion.

The use of the cannon required a new way of building the city walls, and a new way of defending them. The cannon distanced the foes: The attackers could hit from the shooting range of their biggest cannon; the besieged were able to defend not only the walls,

but also the surrounding territory. The distance placed between enemies thoroughly changed the rules of war. Fortification, arms, battle information had to be overhauled, while innovations were called for in most instances.²

For the first three decades of the sixteenth century while the problems were clarified, architects continued to build city walls, bastions and gates, and contributed to the theoretical debate. In 1534 when Pope Paul III called for a meeting of specialists to help decide the fortification design for Rome, there were only engineers, strategists, and warriors among those invited. The convention established the careers of the participants and the importance of the new defensive architecture as a separate branch of construction.³ The date marked the renewal of an ancient Roman literary form, the military treatise. Its popularity and period of greatest distribution overlap with those of the architectural treatise, which flourished during the sixteenth century in Italy. The most influential and innovative Italian military treatises were published between 1550-1615. In them, the problem brought about by the use of cannon in warfare were discussed, largely resolved, and an attempt was made to rationalize the solutions by formulating a theoretical framework. The books were often composed from the actual experiences of the writers who were proud of their experience in the battlefield. The contributions of the Italian military engineers were instantly recognized and appreciated throughout Europe. Their books were circulated widely, and the engineers who traveled extensively served

the most powerful princes.

Towards the end of the century when the major military conflicts had moved from the Italian peninsula to the borders shared by France with Spain, the Netherlands, and the German principalities, the influence of the Italian engineers waned. This loss of hegemony may well have been an outcome of the growing nationalistic sentiments in the west European countries, most clearly seen in France. Once a level of parity was achieved, native military engineers were given preference over foreign mercenaries and their research was encouraged. In France, the formation of an institutionalized corps of engineers by 1600 rendered the services of Italian engineers redundant. Their leading position was taken over and held throughout the seventeenth century by French and Dutch military engineers. The rules laid out in the earlier sixteenth-century treatises were redefined and systematized, as well as expanded, in the work of the French and Dutch writers as developments in offensive arms, geometry, and defensive strategies took place.

The concerns of the military planners focused on the fortified perimeter of the city. The fortification belt widened with the increased sophistication of the defensive measures, and towns were increasingly more separated from the surrounding countryside. The girdle of walls and bastions usually influenced the street pattern of the enclosed town, the layout of the major square, monumental buildings, and the connections between them. Although seldom voiced by military planners, the fortifications exercised a great influence

upon the urban design of the city. After the mid-sixteenth century, fortifications altered the hierarchy and composition of the city, and its relation to the countryside.

In this discussion of the literature on military architecture published in Italy between 1550-1615, and in France and Holland between 1590-1670, emphasis will be placed on the way in which in general the new fortification for cannon renewed the vocabulary of urban design, and specifically how it influenced the design of the seventeenth-century expansion of Turin.

The treatises on fortification comprise one aspect of the numerous publications on military subjects.⁴ Between 1492-1570 nine books on fortification were published in Venice of a total of 145 titles on military subjects. In Italy, including Venice, the total number of original titles on fortification reached twenty-two in the same period, as compared to fourteen in England, ten in France, and three in Spain. In Italy, military affairs interested a wide public, such as patricians, ambassadors, publishers, professional soldiers, and engineers. War and defense were of major concern. Writing and publications increased in times of peace while strategists and engineers looked for the next patron to whom they would often dedicate their works,⁵ and in effect the next war. The publication of treatises on fortification established the subject as humanist discipline by emphasizing its dependence upon aesthetic theory, connection to town planning, and to the writings of the ancients.⁶

The period under review is neatly framed by two exceptional

texts. The 1554 I primi libri di architettura of Pietro Cataneo, and the 1615 L'Idée della architettura universale by Vincenzo Scamozzi are remarkable treatises in that they expertly deal with both civic and military architecture. The treatise by Cataneo is a 54-page, typographically undistinguished volume, divided into four parts.⁷ The parts concern respectively town planning and defense, building materials, ecclesiastic design, and residential design. The military prescriptions are contained in the first part. The classic requirements for a good site are discussed (good air, water, and the advantages inherent in the topography), followed by a description of the hierarchical layout of the town (large central square with the most important buildings, secondary market squares with the neighborhood buildings). The orthogonal grid pattern of the streets results in orthogonal building blocks and squares. The form of the peripheral blocks followed the poemerium which separated the residential areas from the enclosing fortification, and which it paralleled. The poemerium was one of the innovations of sixteenth century military design, and marked the beginning of the separation between military and civilian domains within town. The poemerium separated the urban street grid from the fortification belt while connecting the bastions to one another.

Cataneo omitted what were normally two major topics of the fully developed fortification treatise by 1554: the construction of the bastion, and the range and pattern of cannon fire. The trajectory line was suggested in the illustrated town plans, but Cataneo did not

discuss casemate location, height of scarp, parapet, etc., usually included in later manuals.

Scamozzi's treatise, while marking the decline of Italian innovation and influence, gathered the principal aspects of town planning, urban design, and architecture.⁸ He was the executor of Palladio's last works, and the designer of the city of Sabbioneta.⁹ Palladio had ignored military architecture believing that no fortification could resist a determined army.¹⁰ Scamozzi's treatise was innovative not because it offered new information, but because of the conceptual framework of the manual in which all aspects of construction, from the military defense to the proportions of the column, were considered equally. Scamozzi's treatise collects the best writing on the subject. His academic inclinations are visible in the title page where the author's portrait is flanked by the figure of theory pointing upward, and the figure of practice pointing downward, echoing the philosophers of the school of Athens. The folio volume is divided into ten parts, of which the second deals with the problems of fortification and urban design. It was dedicated to Carlo Emanuele I, the Duke of Savoy. In Scamozzi's interpretation architecture is a science which when profoundly studied will yield a series of rules and appropriate solutions denying thus response to local conditions. Although the hierarchy of squares and buildings that he proposed was identical to that by Cataneo, Scamozzi's "universal" plan was rationally conceived. The river that crosses the town, the blocks and streets of different

dimensions, and the fortifications resulted in a more sophisticated urban scheme. The orthogonal grid was differentiated rather than being uniformly neutral as Cataneo's. In addition to a poemerium there was a consistent relation between the streets, bastions, and gates which would have facilitated military defense.¹¹ Further, Scamozzi simplified the construction of bastions and illustrated the pattern and range of cannon fire.

This comprehensive approach to urban design was not practiced by G. B. Zanchi in his Del modo di fortificar le città.¹² A concise volume of sixty-three pages, it was the first in the series of specialized works offering instruction in military design. Zanchi broached the subjects that were to become the key words of the art of fortification: ideal location of the fortress (whether on a mountain or in the plain), discussion of artillery and the history of offensive war instruments, the plan of the fortification, the design and construction of the individual elements of the fortification system (bastion, moat, cavalier, gate, casemate, etc.). Its summation of the problems made it an effective handbook, and it was reprinted.

J. Lanteri's works on planning and design of fortification were even more circumscribed than Zanchi's.¹³ His illustration for the ideal fortification did not include reference to the layout of the fortified city. Only the bastions and walls with their appendages were discussed and drawn, while the interior of the town remained blank.

The Fortificazione della città by Girolamo Maggi, containing a chapter by Castriotto, was a thick volume divided into three parts.¹⁴

An attempt to encyclopedic range was made by Maggi who provided commentaries to Castriotto's more pragmatic treatment of the technical problems for fortification. Not only fortification, but also the housing of the army, battle formation, and strategy were discussed. The key words established by Zanchi ten years earlier were reconsidered by the author. Castriotto's proposal for angled walls allowed for more cannon locations while reducing the area of the settlement. Maggi's bastions were located close to one another, and separated by a short curtain wall. They projected outward with an offensive strength, and further eroded the enclosed habitable space. Cannon were to be used to interdict the use of the countryside to the enemy, rather than simply rake the adjoining curtain wall. The flower-like aspect of the proposed plan was repeated in another design by Maggi. In this, six casemates could be placed in the flank of the triangular bastion, and each cannon would cover a slightly different angle. Since large cannon were dangerous and hard to maneuver, Maggi's advice in favor of smaller cannon for raking fire appeared well taken. The idealized eight-sided fortress had deeply angled walls resulting from the overlap of two squares, an octagonal central square from which issued eight radial streets leading to eight bastions.¹⁵

Gerolamo Cataneo's Opera Nuova di Fortificazione¹⁶ gave detailed illustration for the construction of a bastion, reviewed possible

fortification enclosures (angled walls, layered walls), and suggested a totally abstract settlement pattern for a military camp. The suggested squares were equal in size and location; the resulting plan was centralized, but non-hierarchical. The tendency of this author towards the theoretical aspects of military art was emphasized by the list of qualities intended for bombardiers, and the layout in the later edition of the infantry battle formations.

One of the most beautifully printed military treatises of the sixteenth century was Alghisi's Delle Fortificationi Libri Tre.¹⁷ The three parts deal respectively with the history and criticism of fortress construction, the geometrical form of fortresses with five to twenty-one bastions, and with construction materials. By Alghisi's time the conviction that the plan of the fortress was as important as the courage of the defending captain had made military architects rather bold in using self-praise in their quest for acceptance of the profession. This opinion complemented that which argued that a town needed only worthy men to preserve its independence.¹⁸

By 1570 there existed a body of literature on the subject of military architecture, and Alghisi could define his position by comparison with that of others. He and Castriotto had met in the mid-1530s in Rome when fortifications were discussed in the meetings convened by Pope Paul III. Alghisi preferred a fortress in the plain, where Castriotto had preferred one in the mountains. Since the design of the bastions had become highly sophisticated, the

discussion was more detailed: acute angle vs. obtuse angle bastions, etc. The curtain walls of Alghisi's fortresses were angled deeply inward, and the loss of habitable area was approximately one-sixth of the entire enclosure.

Since Alghisi insisted upon the use of drawings for design and building, it can be assumed that construction was begun often without the benefit of a drawn study.¹⁹ Familiarity with geometry, algebra, and perspective was as necessary as battle experience. The emphasis upon the need for these abilities shows that the mathematical sciences were not widespread among the military engineers. Although materials were briefly discussed by Alghisi, no construction drawings were included in the treatise. In his general discussion of the fortification belt, there was only brief mention of the street pattern, and the interior organization of a fortified settlement. Alghisi's disquisition was oriented entirely towards other practitioners whom he knew, rather than directed to the layman.

The work of Francesco de' Marchi, a military architect from Bologna, posthumously published in 1599 but written around 1545 and circulated in manuscript, was a major reference work throughout the sixteenth and seventeenth centuries.²⁰ On the strength of this work and his professional practice, de' Marchi was considered one of the most important Italian engineers of his day.²¹ The relation between town and its fortification was clearly defined by de' Marchi. The requirements of the former were entirely subservient to the needs of the latter. Urban design was characterized by the customary

placement of the principal elements. The public buildings were at the center of town framing the major square; radial streets connected the square to the bastions and bisected the secondary squares. The widened poemerium separated the residential areas from the military fortified belt. This belt began to widen jutting into the countryside as de' Marchi explored the design and use of the foreworks. They were placed in front of the walls and bastions, and formed a protective screen for the bastions whose function they replicated (raking fire and shooting into the countryside).²² Thus, the enemy would be kept further away from the walls of the town.

De' Marchi's concern with the foreworks was much appreciated in the seventeenth century. Pagan's and Vauban's fortification systems owed much to his ideas. Well known among contemporary rulers, de' Marchi worked for Pope Paul III, at whose instigation the treatise was written. He continued to work on it while in Brussels in the employ of the emperor.²³ A large part of the study was concerned with the improvement of cannon trajectory and cannon range through better fortification design. The settlement was considered to be military, and the site was selected according to national strategy. De' Marchi remained aligned with contemporary thought in that his fortification was intended to solve specific site problems rather than propose idealized fortresses.

The Architettura Militare by de' Marchi was an important reference manual in the second half of the sixteenth century. Its publication in 1599 insured its continued use as a mine of ideas, and

codified a fortification manner that was shared and widely practiced by the Italian engineers. His ideas were lavishly illustrated with town plans and views. The numerous illustrations gave to the work the character of a pattern book, easier to copy than to interpret. As military architecture became more specialized, the sixteenth-century treatises acquired more and more the aspect of the illustrated copy book. Emphasis was placed upon the instruments and the rudimentary knowledge of geometry necessary for the layout of fortifications. The repeated calls for studied military architecture, and specifically for plans, demonstrate that few fortifications were designed on paper. The treatise/pattern books took the place of design studies, and helped in the dissemination of useful knowledge.

In the second half of the sixteenth century, Italian military engineers dominated in European construction of fortification. As the design of fortifications improved because of the more sensitive measuring instruments, better building materials, and as the result of experimentation, various schools developed. Their methods, although derived from Italian military architecture, began to acquire national characteristics, responding more closely to local conditions and materials. However, the essential innovations had been made by the end of the sixteenth century.²⁴ The engineers of the seventeenth century systematized the work of their predecessors. The development came from their ability to abstract and theorize the principles of military architecture. The summary was represented in the designs by

Vauban for the fortresses along the French border. There cannon fortification was brought to its final conclusion. Fortification was crucial in seventeenth-century France which, due to its strong expansionary tendencies, was surrounded by enemies on all sides. In contrast with Italy, where military engineers wrote as part of their search for a patron, the writings of the French military engineers, who were in the employ of the monarchy, were intended as handbooks for the consolidated profession.²⁵

Of the earliest military treatises published in France, the one by J. Perret demonstrated handsomely the architectural ambitions of the author. The engravings were by Thomas de Leu, and Perret, who was a protestant of Savoyard origin, dedicated the work to Henri IV.²⁶ The ground-figure engravings illustrate solutions for urban, residential, and ecclesiastic designs. Caption-like texts discuss the images. Within the small volume the author referred to numerous problems of architecture and representation, but only in a pattern-book manner, proposing a series of fortified towns with radial and orthogonal street plans, but without a theoretical structure for the study of military architecture.

The reverse was the case in J. Errard de Bar-le-Duc's Le fortification démontrée et réduite en art where the author concentrated on military matters.²⁷ An augmented version was published posthumously in 1620. Errard was the foremost French architect and engineer at the court of Henri IV. He designed the fortifications of Amiens, whose cladding of brick and stone were

closely replicated in the materials of the Place Dauphine in Paris. Errard's knowledge of fortification was gained in battle. He participated in numerous campaigns, including the war in 1600 against the Duke of Savoy.²⁸ The edition of 1620, enlarged by Errard's nephew, was divided into four parts. The first part dealt with measurements as related to cannon trajectory and the calculations derived from it (thickness of the wall, width of the moat, size of the attacking army, and the weight of cannon), the requirements of the military engineer (to have participated in the siege and defense of towns, to be a good leader, to know geometry and artillery, architecture and building methods, and to be able to handle himself with superiors), as well as advice on the drawing of plans. The second book summarized fortifications by shape (regular and irregular), and by size. The design of fortresses with up to twenty-four sides was demonstrated. The length of the defense line and the distance between bastions was determined in Errard's analysis by the range of portable firearms, not cannon as in the idealized plans of the Italian military architects. The third book broached the problem of fortifying the irregular site. Emphasis was placed upon rendering the site as regular as possible, rather than using irregularities in the terrain to advantage in the way suggested earlier by Castriotto. The relation between citadel and town was defined once more: The former dominated and surveyed the latter from a position peripheral to it. In the fourth book, Errard analyzed the thankless problem of defending a town dominated by a mountain. In

this work the need to build according to the new rules was made imperative. The author showed more concern for the construction of ex-novo fortresses than for the defense of existing towns whose development and pre-cannon fortification had not been governed by the use of firearms.

Echoing the title of Errard's treatise, in the frontispiece of Antoine de Ville's Les fortifications, Art and War are paired and inscribed in the keystone of a triumphal arch.²⁹ The fifty-five plans illustrate fortresses and fortified towns, strategies for attack and defense, and the manner of fortifying irregular sites through the use of geometry. Contrary to Errard, de Ville continued to imagine the fortress as a fortified town, where the requirements of the art of war were subordinated to the convenience and defense of the citizens. Like Errard, de Ville emphasized the importance of personal experience in the writing of military books, and often mentioned his own, and his family's military endeavors. He was more concerned with pragmatic, localized solutions than with the elaboration of a fortification theory.³⁰

The treatise of Malthus (Fra de Malte) of the same year, Traité des feux artificiels pour la guerre et pour récréation, was dedicated to the Cardinal Richelieu.³¹ It was more abstract in its treatment of fortification, being a study in applied geometry and mathematics. Divided into three parts, the manufacture of grenades and fireworks, practical geometry and a discourse on arithmetic, it handled the specific problem of fortification in the second part, preceded by

instruction on how to measure heights, distances, and changes in the level of terrain.

Geometry, fortification, and perspective had been joined in a 1614 study by the Dutch mathematician S. Marolois in his Opera Mathematica published in French in The Hague.³³ Although it was also written in French, it dealt extensively with local Dutch problems, especially the use of canal sluice-gates in the overall defense system of the Low Countries. Nonetheless, Marolois and Stevin were known and read by their foreign contemporaries. They established the fame of Dutch fortification theory and engineering before it was eclipsed by that of the French military architects who took over the lead in the later seventeenth century in the person of Vauban.

Adam Fritach was also influential as a mathematician. His treatise of 1635, aimed at a wide audience, was entitled L'architecture militaire ou la fortification nouvelle.³⁴ Divided into three parts, the work dealt with the fortification of a regular site, irregular fortresses and works on the exterior of the city, and the problems of the besieging army (temporary fortifications, galleries, mines, attacks, marches). The fortifications suggested by the three Dutch engineers Marolois, Stevin, and Fritach, were of battered earth, including the walls and the bastions. This manner of construction, dominant in the Low Countries, was cheaper to erect but more difficult to maintain than the masonry-clad walls and bastions built in France and in Italy. Fritach found Dutch fortifications superior to those of the French and the Italians. He also advocated

a wide range of fireworks to defend the curtain walls and the bastions. Marolois had argued that the fireworks only increased the size of the required garrison.

The international quality of the military architect as a professional was made evident in the treatise by Fritach. Not only was he aware of development in other countries, and of the opinions of other writers on the subject, but his treatise contained a four-language concordance (French, German, Flemish, and Latin) of the terms used in fortification. The exclusion of Italian demonstrates vividly that by 1635 the hegemony of the Italian military architects was a thing of the past.

Traditional in its organization and influenced by Errard's writings, Les pratiques du Sieur Fabre . . . proposed a two-level firing system and emphasized the need for the education of engineers in war strategy.³⁵ Although published in 1629, it had been composed by 1620 and most likely circulated in manuscript.³⁶ The author's military employment as ingénieur ordinaire in the wars of Valtellina in the mid-1620s prevented its earlier publication. The first part of the four-part work dealt with the layout of the fortress, the design of the bastion, and the history of modern fortification. The remaining parts were concerned with the organization of the army and the actual siege, analyzing the organization of the garrison, the making of camp, siege strategy, and the defense of fortresses. Both idealized and actual situations were considered.

Military historians agree that the culmination of French

research in the theory of military architecture was achieved by B. F. Pagan in his Traité des fortifications published in 1645.³⁷ He had joined the army in his early teens, and was a field marshal by 1643, but lost his eyesight soon after. His research continued, and his house became a sort of salon for military men.³⁸ His concern was to make the fortress resist longer than the customary six weeks of siege. He formulated a fortification with increased depth, keeping the enemy further from the walls of the city. The face of the bastion was determined from the exterior of the polygon. In comparison with the method of Marolois, Pagan suggested longer curtain walls, placing the bastions wider apart, and perpendicular to the defense line rather than to the curtain. Pagan introduced the idea of active defense, and intended the use of the fortification as a last resort; while on the besieger's side, he pioneered the idea of attacking the bastion rather than the center of the curtain wall. His elaborate two-moat system was not employed in contemporary fortifications, but found acceptance in the work of Vauban whose first two fortification systems were derived from Pagan.³⁹ Like de Ville, Fabre, Malthus, and the Dutch engineers, Pagan did not concern himself with the interior layout of the urban settlements he fortified, or even with the influence of military architecture upon the civilian aspect of the city.

The comparative approach demonstrated in L'art universel des fortifications françoises, hollandoises, espagnoles, italiennes et composées by Silvere de Bitainvieu, published in 1665, showed that

military architecture was the international language of the seventeenth century.⁴⁰ The customary four-part organization of the treatise dealt with the individual elements of fortification and the various national solutions, the design of the fortification, fortification of irregular areas and the tracing of the plan on site, and the tracing of fortification on paper. Bitainvieu was a pseudonym for a Jesuit from Metz called Jean de Breuil, who also taught fortification design. His approach to military architecture was conditioned by his training in descriptive geometry, rather than first-hand experience in the battlefield.

Another well-known teacher of the late seventeenth century was Francois Blondel, author of the Nouvelle manière de fortifier les places published in 1683.⁴¹ Blondel was the preceptor in mathematics of the Dauphin. His other titles included the directorship of the Royal Academy of Architecture, he was member of the Royal Academy of Sciences, and field marshall in the king's army. Blondel had published an architectural treatise in 1673 focused on stereotomy.⁴² To illustrate his proposed manner of fortification he prepared a three-dimensional model. His work showed knowledge of the various national fortification manners, which he analyzed concluding that the art of attack was more advanced than the art of defense. The work of Pagan remained an important point of reference for him, and was often quoted by Blondel's contemporaries.⁴³

Of the seventeenth century French military engineers, Sebastian Le Prestre de Vauban was the most prolific. The collection Oisivités

consists of twelve volumes, and does not include his unpublished correspondence and manuscripts.⁴⁴ He was in active service in the king's army from 1651 to 1706. During that time he conducted forty sieges under the king's immediate command. He was superintendent of French fortifications and responsible for their maintenance and repair. He appreciated the Dutch defensive system based on the use of water, but his own numerous fortification designs were based on the theories of Pagan.⁴⁵ He expanded the already wide fortification belt with additional foreworks, and an intricate mine system. Although not concerned with the layout of the fortress, or the fortified city's interior space whose plan was usually orthogonal, Vauban was interested in the representative aspects of the fortification and conceived them as models for the reorganization of the territory.⁴⁶ He understood and cooperated with Louis XIV, and the minister Louvois, his great protector for whom the line of fortresses built along France's boundaries were to legitimize and strengthen the national perimeter.

The interest in the relation between the fortress and surrounding territory was illustrated in the plans-reliefs whose production began in 1668 and continued systematically to the revolution.⁴⁷ The fortresses were an aspect of territorial planning at national level. Because of their similar peripheral location and rational layout, there was formal and figurative continuity between the bastides in the south of France and the fortified cities of Vauban. This continuity was made in time through Vitry-le-Francois

(1545), Nancy (1588), and Rochefort (1665). The urban environment of seventeenth-century settlements had a strongly military aspect since the fortification occupied a much larger space than the town itself (in the case of Huningue, eight times more territory).

The church and the gate contributed the major architectural ornaments of the city as conceived by Vauban. He believed that the strength of the fortification enclosure is often measured by the beauty of the gates. The church was on the central square which was directly connected, due to the orthogonal street pattern, with the entry gates. In the case of Neuf Brisach, the design of the private houses flanking the streets between the gates and the central square was regulated and rendered uniform by the 1698 Devis des Ouvrages.⁴⁸ Vauban attempted to embellish the civilian portion of the fortified settlement in order to secure its survival after it became militarily obsolete.⁴⁹

* * * * *

The development of the fortified city and the theories which ruled its implementation overlapped with the interest in urban design which was in the fifteenth century part of the revived study of antiquity. The Italian proposals for "ideal cities" written from the end of the fifteenth century were a call for urbanistic and architectural control of the environment, for an order which was to state and reinforce the hierarchy inherent in society. Sforzinda, the ideal city designed by Filarete for the Duke of Milan, had a centralized plan where the location of buildings with governmental

and social function was predetermined. The Prince and church occupied the center of the city, the perimeter walls were equidistant from the center, and the social importance of the inhabitants could be measured by the distance of their houses from the center.⁵⁰ The character of urban environment was to be clarified through the insertion of geometrical order in the plan of the streets and squares, and uniformity in the size and materials of buildings.

Among the town plans proposed by Filarete, Francesco di Giorgio and Durer, the earliest and most important writers on urban design, two types can be considered fundamental. One plan called for a circular fortification enclosure, and a central square from which emanated radial streets, the other had a square enclosure and an orthogonal street system. The city with rectangular perimeter had straight streets with right-angled blocks. Suggested by Durer, it was a direct descendant of the Roman military camp.⁵¹ In it, two main streets crossing at right angles at the center of the settlement. This crossing, around which originally the military command was encamped, became the central forum. The four quarters of the settlement were occupied by the rest of the army, and service buildings. In Durer's ideal city the military hierarchy was to be replaced by a civilian hierarchy with a centralized power structure. The round city with radial concentric street pattern was suggested by Filarete and later by Francesco di Giorgio. The latter's circular city plans were intended for both civilian and military settlements.⁵² The former intended it as the symbol of the prince's

power represented in architectural and urbanistic form.

Suggestions for ideal cities, or rather idealized urban designs were made in most of the Italian and French architectural treatises published between 1500-1570.⁵³ While research on the typology of urban structures continued, interest in the manner in which the pieces would fit together grew. The ordered urban environment became the physical realization of the well-organized political structure. Of the two ideal plan types, with orthogonal and radial streets, neither could be literally realized in the existing dense urban settlements. However, the Roman military plan was used extensively in the planning of colonial towns in Central America, after its adoption as the principal model for the set of planning laws known as the Laws of the Indies.⁵⁴

The radial city plan was an innovation of the fifteenth century. Together with the centralized church, it represented the highest goals of the period which placed man at the center of the universe.⁵⁵ Contrary to the grid-iron plan implemented in the colonial cities, the radial city plan was not widely adopted as a valid urban solution. Its elaboration took place in the treatises of the military architects discussed above. The radial plan was used in the design of Palmanova, built at the end of the sixteenth century and in the plan of Granmichele built in 1693.⁵⁶

This transition from the ideal city to the ideal fortress operated on two levels. The literary adaptation was discussed in the section above where the switch in the sixteenth century from

architecture-urban design treatises to military architecture-urban design treatises was traced. But the transition was not a simple takeover of the ideals of one branch of design by another. The concerns of the architects had mutated following the interest of their patrons. Already Leonardo deemed it advantageous to present his ability as military and hydraulic engineer as equal to his better-known artistic talents.⁵⁷ The technical ability was more sought after as the sixteenth century advanced.

The need for military defense had been brought about by developments in artillery. It had also become imperative as the free cities lost their independence to despots. The citadels dominating most cities insured the cooperation of the citizens, as well as defended the city from outside attack.⁵⁸ Existing cities were difficult to change, and thus the elements of the ideal city could be inserted only in a fragmentary manner. All interventions required authoritative support which imparted to them a strong political quality. Since demolition was required for most new construction, it was a way through which the established power of certain family groups could be undermined and the town's social and political hierarchy restructured.⁵⁹ The new walls required increased territory and wider field of vision for defense. Thus, when the fortifications were updated without expansion of the city the suburbs were razed, as was done in Turin in the 1530s. Even the few urban projects that can be considered ex-novo required the restructuring of an existing rural settlement.⁶⁰

The ideal city proposals were realized in the fortresses and the military towns built after 1560 in Italy, France, and Holland. At the beginning of the seventeenth century, Palmanova was still an anomaly among military constructions which were mostly adaptations and upgrading of existing fortifications. However, the number of ideally shaped fortified towns increased in France after the middle of the seventeenth century.⁶¹ These new towns, with a primarily military character, were built at the boundaries of France, and were to define the perimeter of the expanding nation. This string of frontier military settlements designed by Vauban and his assistants defined the political edges of the nascent nation.

The circular circumference of the ideal city was replaced by the many-sided polygonal defense enclosure of the military settlement. In the early stages of the transformation from the ideal city to the ideal fortress the difference, as seen in the literature, was only a matter of emphasis. As in Palmanova, the enclosing wall and the bastions became more important than the central square with its monumental buildings inhabited by the leading citizens. The relation between the center and the fortification changed. Unlike Palmanova, the straight connection between the gate and the central square was replaced by the street connecting the bastion to the central open space. The central square was used as a parade and shooting ground and the place from which the streets leading to the fortifications could be kept under surveillance. The streets opening in front of the gates often led to secondary squares, or to the

ring-street connecting the radial streets. The secondary streets, not connected to the center, were also necessary in order to reduce the size of the larger blocks at the periphery of the circular enclosure.⁶²

The city with nearly circular walls and radial streets became the ideal form of the active defense fortification. However, the circular enclosure was often juxtaposed, in treatises and in actual settlements, notably those by Vauban, with an orthogonal street pattern. An attempt was made to connect both bastions and gates to the main square thus unifying the two conflicting, military and civilian, requirements of the urban design. Then with the introduction of the poemerium, the ring street which connects the bastions and separates the fortification belt from the urban street grid, the schism between military and civilian domains was introduced. The fortification belt, interconnected and self-supplied, was functionally divorced from town. The wide streets of the ideal military city were no longer necessary, as cannon carriages passed along the poemerium from one bastion to another. Streets connecting the gate to the central square became again important, as the civilian use of the city reasserted itself.

Militarily conceived settlements had difficulty in attracting commercial activity. The advice of the treatise writers regarding the importance of the site for the settlement had gone unheeded.⁶³ The fortified towns, Palmanova, Neuf Brisach, Longwy, etc. were built where they were needed for national defense and expansion. This

often meant that the site was not suited for manufacture or commercial exchange. Once the military problem was solved their sole function expired and their development languished.

NOTES TO CHAPTER V

1. For the history of the invasion of Italy and its consequences upon fortification design see:
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3. H. de la Croix, "Military Architecture and the Radial City Plan in Sixteenth Century Italy," Art Bulletin, 1960, 42:263-90.
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11. See Scamozzi, op. cit., title page and plan of ideal city, also E. Guidoni and A. M. Guidoni, Storia dell'urbanistica: Il Seicento, Bari, 1979, 131-39; M. Tafuri, L'architettura del manierismo nel cinquecento europeo, Rome, 1966, 178-184.
12. Giovan Battista de' Zanchi de Pesaro, Del modo di fortificar le città, Venice, 1554, 1556².
It was dedicated to Maximilian, the King of Austria and Bohemia.
13. Giacomo de Lanteri, bresciano, Due dialoghi, Venice, 1557, 1559².
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Maggi's plan reminded Lavedan of the layout of Sforzinda by Filarete.
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26. Des fortifications et artifices, architecture et perspective de Iaques Perret gentilhomme savoysien, Paris, 1594; G. Eimer, Die Stadtplanung in schwedischen Ostseereich 1600-1715, Stockholm, 1961.
27. Errard de Bar-le-Duc, La fortification demonstrée et réduite en art, Paris, 1594, 1604², 1620³ (enlarged).
28. Buisseret, op. cit.
29. Antoine de Ville, Les fortifications du villes aves l'ataque et la defense des places, Lyon, 1629, 1669².

30. Ibid., introduction:
 ". . . Au lecteur . . . Je t'assure pourtant, ami Lecteur, que ie n'ay rien escrit, que mon frere (Sargent Major du Regiment de Monsieur le Prince Thomas) ou moy, n'ayons veu, ou practiqué: L'experience de ceux qui s'en serviront sera cognoistre la vérité. . . ."
 A. de Ville's portrait made in 1627 at age 31, following the title page of the treatise, shows him as chevalier of the order of Ss.Maurizio e Lazaro.
31. Fra de Malte anglois, Traité des feux artificiels pour la guerre et pour la récréation avec plusieurs belles observations, abbregez de géometrie, fortification et exemples d'arithmetique, Paris, 1629.
 It was dedicated to Cardinal Richelieu.
32. Samuel Marolois, Opera mathematica ou ouvres mathematiques traictans de geometrie, perspective, architecture et fortification, The Hague, 1614.
33. S. Stevin, La Castramentation, Leyden, 1618.
 It was dedicated to Maurice, Prince of Orange. See also Eimer, op. cit.
34. Adam Fritach, L'architecture militaire ou la fortification nouvelle augmentée et enrichie de forteresses réguliers, irreguliers et de dehors, le tout a la pratique moderne, Leyden, 1635.
 It was dedicated to Vladislau IV, the King of Poland.
35. Jean Fabre, Les pratiques du Sieur Fabre sur l'ordre et reigle de fortifier, garder, attaquer et defendre les places, Paris, 1629. See also Cosseron de Villenoisy, op. cit., ch. V.
36. Fabre, op. cit., 5:
 ". . . J'avois resolu, conclu, et presque mis a net cet essay des l'aneé mil six cent vingt. Les services personels ausquels ma charge m'obligeoit dans des camps et armées due Roy m'avoient empeche d'y mettre la dernier main, jusque a present, qu'un loisir constraint par l'age et autres incommoditez qui me restent de la guerre, m'a permis de le mettre en cet estat. Conbien que pedant ce temps la je l'aye toujours, cheri comme mon enfant, et transporte par tout la ou je me suis porte par la commandement et pour la service de S.M. qui me fit l'honneur il y a toutost cinq années passées d'en vouloir voir la coppie et en approuver le dessin, dont j'avois déjà fait tailler les plaches. . . ."

37. B. F. Pagan, Les fortifications, Paris, 1645; Colonel Augoyat, Apercu historique sur les fortifications des ingénieurs et sur le corps du Génie en France, 3 vols., Paris, 1860.
38. Pernot, op. cit.
39. P. Lazard, Vauban, 1633-1707, Paris, 1934, ch. I; Cosseron de Villenoisy, op. cit., ch. V.
40. Silvere de Bitainvieu, L'art universel des fortifications françoises, holandoises, espagnoles, italiennes, et composees, Paris, 1665; Lazard, op. cit., ch. I.
41. Nouvelle maniere de fortifier les places par M. Blondel marchal de camp aux armées du Roy e cy-devant maitre de mathematique de M. le Dauphin, Paris, 1683.
For a selected bibliography on Blondel see:
W. Hermann, "Nicolas-Francois Blondel," A. Placzek, ed., Macmillan Encyclopedia of Architects, 4 vols., New York, 1982, v. I, 216-19.
42. Resolution des 4 principaux problemes d'architecture par F. Blondel, de l'academie Royale des Sciences, directeur et professeur au l'academie Royale d'architecture et de mathématique au college royal, marechal de camp et armées du Roy et maistre des mathematiques de Monsieur le Dauphin, Paris, 1673.
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For a selected bibliography on Vauban see:
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47. For the history of the collection of the plans-reliefs see:
G. A. Rothrock, "Musee des Plans-reliefs," French Historical Studies, 1969, 6, 2:253.
48. Giuffre, op. cit.
49. L. Grodecki, "Vauban urbaniste," Bulletin de la Société d'Etude du XVIIe Siècle, 1957, 34:329-52.
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57. L. Reti, ed., The Unknown Leonardo, New York, 1974, 6-7.
K. Clark discusses Leonardo's letter to the Duke of Milan in Leonardo da Vinci, Harmondsworth, 1939, 1980², 45-6.
58. For a discussion of political and social implications of citadel building see:
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59. For a discussion of the political and social power as determined by fortifications see:
R. Tuttle, "Against fortifications, the defense of Renaissance Bologna," Journal of the Society of Architectural Historians, 1982, 41, 3, and A. M. Guidoni, "L'architetto e la fortezza," Storia dell'arte italiana: Momenti di Architettura, Turin, 1983, v. XII, 85, where Paul III's destruction of the Baglioni palaces in Perugia to make way for the Rocca Paolina in 1540 is discussed.
60. Examples of new towns built on the site of existing settlements include Sabbioneta (1560), Grosseto (1593), Livorno (1540), Pienza (1459), Charleville (1606). See M. Morini, Atlante di storia dell'urbanistica, Milan, 1963, 213, 216, 217, 223, 239, (plans of new and restructured towns).
61. Among the best of the new French frontier settlements were Longwy, Sarrelouis, and Neuf Brisach.
62. See the radial city plans by de' Marchi and Lorini, the plan of Palmanova; also Lang, op. cit., Rosenau, op. cit.

63. A suitable site was well ventilated, supplied with fresh water source, and was located at the crossing of major roads.

CHAPTER VI

CONCLUSION

TURIN, THE SAVOY, AND THE PRACTICE
OF MILITARY ARCHITECTURE

In the 1540s the role of the architect, whose function had been evolving for the previous century, underwent further specialization. The profession became divided between designers of military and civil architecture. Up to that time, architects had been asked to design a wide range of objects, from new towns and fortresses to buildings and their interior decoration. The architect fulfilled the joint function of artist and builder; his training was often in sculpture or painting, as well as masonry. By the beginning of the sixteenth century, there were many painters and sculptors occupied with the design of buildings.¹

The work of architectural design often included an aspect concerned with large-scale works, such as hydraulics, draining of marshes, and bridge construction. Among these large scale construction enterprises was the design and fortification of towns. By 1545 there was a group within the architectural profession almost exclusively occupied with fortification design. The practitioners of military architecture were called "engineers" from the term engine which was used to describe war machines.²

The importance of military architecture had been recognized by the emphasis placed upon it in the writings of architects such as Leonardo, and Francesco di Giorgio Martini. Military architects were given an important role in the 1530s when Pope Paul III invited a group of them to make proposals for the new fortifications of Rome.³ The convention gave new confidence to the specialists, and the demand for their services increased. The improvement and the extended use of cannon made the renewal of fortifications of most towns imperative. As seen in the discussion founded on the military treatises, the increased quantity of literature on fortification was part of the response of the profession to this new need.

The knowledge and experience required of the military architect became increasingly differentiated from the civil architect's. Training was through apprenticeship in war and through study of treatises. In addition to design and construction methods, the military architect had to master surveying, ballistics, and attack strategy. Since the new fortifications were rendered necessary by improvement in cannon, the use of mines, and the renewal of strategies practiced in antiquity, acquaintance with the latest discoveries and interpretations was essential.⁴

Military engineers were also employed in the maintenance of fortresses. They traveled a great deal at a time when movement between towns was difficult.⁵ The functions of the military architect overlapped with those of the military officer. In the early decades of the profession, the military architect was often a

commissioned officer, customarily in the artillery. In addition to his function as strategist and officer, the military architect also served as a spy.⁶ His talent in draughting was called upon for the description of towns that were to be besieged. He provided sketches with the layout and views of the town which helped to formulate the strategy of attack. Out of the need for precise information regarding the urban layout, and with the help of the new, more sophisticated survey instruments, grew the new science of cartography. Mapmaking became an important tool in waging war. In turn, the new maps intended for military use were able to be adapted to peaceful purposes. The advance in surveying methods and mapmaking was one of the major contributions of military architecture to city planning.⁷

By the middle of the sixteenth century there were views of most Italian cities, but there were few engraved plans. The views were not precise, and were rather a symbolical representation of the most important aspects of the city, made in form of a painting or a fresco. From the middle of the century, attempts were made to systematically draw the plans of cities. One of the first such enterprises was sponsored by Philip II of Spain who commissioned J. Deventer to engrave the plans of cities in the Low Countries.⁸ Since the cities were in a part of his domain which Philip II held with uncertainty, there was an obvious military intention and political usefulness in the ordering of precise plans.

The plans of towns could also serve peaceful purposes. They

could manifest pride of place, and were an essential ingredient, more than the views which were not as abstract, in the conceptualization of the town's image. In urban design the availability of the accurate plan was an important step which led to the articulation of large-scale projects by clarifying the relation between different parts of town. The ability to visualize the entire town, and to conceive of it as a whole enabled planners to have a comprehensive vision, rather than continue in the fragmentary manner common until then.⁹

However, both the plan and the view served military purposes throughout the sixteenth and seventeenth centuries. Their importance is made manifest by their preservation in large bound atlases, which were part of the topographical collections assembled by many sixteenth-century princes.¹⁰ The military heritage manifested itself in the political tendency to commission official views of the city. The commissioner of the view acquired power over the city whose secrets were thus exposed. He controlled the diffusion of the plan or view, which became an instrument of dynastic showmanship.¹¹ Cartography provided the technical means for the design of new towns, while the civil and military architectural treatises provided the theoretical foundation.

* * * * *

When he retrieved Turin from the French as the result of the treaty of Cateau-Cambresis (April 1559), Emanuele Filiberto, Duke of Savoy, commissioned a perfectly regular pentagonal citadel located in

the southwest corner of the rectangular castrum plan of the city. The strength and visual appeal of the military structure was such that it established Emanuele Filiberto among the most important strategists of the period, and Turin as a famous piazzaforte. Although the pentagon was considered the perfect form for the urban fortress (two bastions dominating the town, and three bastions defending it from the countryside), none had been realized before the Turin citadel.¹² The Fortezza di Basso in Florence had a five-pointed star plan, but its sides were not equal and its bastions were obsolete by 1560. In the later sixteenth century several pentagonal fortresses were under construction (Antwerp, Pamplona, Parma, Modena, Ferrara), but they were finished after the one in Turin.¹³ The citadel of Antwerp was the closest in time to that of Turin, as well as identical in form. The two structures shared a common designer, the architect F. Paciotto.¹⁴

Emanuele Filiberto had met Paciotto in Flanders, where they fought in the employ of Philip II of Spain.¹⁵ Paciotto built the fortress of Antwerp for the King of Spain, for whom he fortified several smaller towns. Paciotto was employed also by the Farnese family.¹⁶ He was consulted on the design of the pentagonal Farnese palace at Caprarola in the late 1550s when Vignola was about to continue the construction begun by Antonio da Sangallo. Paciotto thus had the chance to closely examine the problems inherent in the geometry of the pentagon. Perhaps he suggested the design for the round cortile at the center of the pentagon, which was replicated in

the Turin citadel with an intricate circular fountain and cistern. During the same period, Vignola's design for the Farnese palace in Piacenza was submitted for criticism to Paciotto.¹⁷ Although Paciotto accused Vignola of megalomania, it is likely that analyzing the project in Piacenza he became acquainted with the effect of unplastered brick in large-scale construction. In Vignola's designs for the palaces at Caprarola and Piacenza, the military aspect of the structures was emphasized by the undressed brick cladding, which replaced the customary stucco finish. The immense size of both buildings was brought into relief by the small dimensions of the brick. In addition to their size both palaces stand out because of their deep hue, brought into relief by the surrounding light and stuccoed structures.

Paciotto's design for the citadel of Turin may have been inspired by the form of the palace at Caprarola, and by the building materials of both Farnese palaces. The Farnese were among the foremost patrons of art, architecture, and urban design in the sixteenth century. Paciotto had built a gallery for Ottavio Farnese in Parma in the 1580s,¹⁸ while Alexandro Farnese, commissioned the pentagonal fortress of Parma.¹⁹ The patronage of Paciotto by Emanuele Filiberto connected the House of Savoy to the Farnese family and to the Spanish crown. Emanuele Filiberto had close cultural and diplomatic contact with the King of Spain whom he served in the battle of St. Quentin.²⁰

The fortification of Turin became necessary when the Duke of

Savoy moved the capital there from Chambery. The choice of architect showed his formal and ideological alliance with the imperial powers. The pentagonal citadel became the most important element in the defense of Turin. It introduced an object which was geometrically and formally pure and which incorporated the latest military innovations. It was the jewel in the ducal crown, and it became the reference point for future fortification projects in Turin.²¹

The pentagonal fortress was attached to the southwest corner of Turin, whose walled perimeter was an almost perfect square. Since the two regular polygons formed a unified whole, when the moment came to expand Turin it may have been difficult to conceive of the appropriate form for the new city. Initially, the expansion plans suggested by the court architects, Vitozzi and Carlo di Castellamonte, continued the theme of perfect geometrical forms, an approach to urban design borrowed from ideal city planning. The architects suggested circular or semicircular additions to the existing square and pentagon. The square wall perimeter of Turin was to become curved and the orthogonal grid of streets transformed into a radial street system (Plates 3, 4).²²

It appears that the early plans of the 1580s and 1590s were put to rest while searching for a conceptual tool for the design. The evidence indicates that the expansion was considered in earnest again in the 1610s when the directions for the expansion of Turin were determined and steps were taken for their realization. The expansion reorganized the plan hierarchy of the Roman castrum. The ideal city

plans were modified to respond more closely to the military and ideological requirements. The military requirements called for the enclosure of as much territory as possible with the least number of bastions, since the cost of fortification in construction and maintenance was calculated by the number of bastions needed. The ideological content of the expansion was fulfilled by expanding Turin towards the Po. The expansion did not diminish the ability of the citadel to defend Turin, and placed the palaces of the ducal family in a centralized location within the street grid.

The design of the fortification and the implementation of its parts were carried out by military architects and engineers at court. Many were artillery or cavalry officers in the duke's army. Several were involved in the theoretical aspects of fortification and engineering. Their interests are documented most usually in the form of reports on the condition and proposed improvement of existing fortresses in Piedmont. Carlo di Castellamonte, for example, wrote about a major hydraulic engineering project planned northeast of Turin.²³

The engineer who supervised the construction of the citadel when Paciotto returned to Flanders, F. Horolloggi, wrote an unpublished treatise on the subject of fortification.²⁴ The first part of the work contained the basic precepts for design and construction of fortification with emphasis on the quantity and cost of the material employed. The second part proved the specificity of the treatise in its extensive illustration of Piedmontese fortresses.²⁵

A treatise of Gabriele Busca published in Turin in 1585 demonstrated another aspect of the versatile court engineer.²⁶ This lengthy work focused primarily on the attack and defense of the fortress, as its title indicates. Emanuele Filiberto, who was an acclaimed warrior and sponsor of a famous fortress, attracted distinguished military men with interests in theoretical and practical engineering. Several strategists and engineers who wrote on the theory and practice of fortification while in the employ of Emanuele Filiberto were studied by Promis, although their literary estate has been lost, or altered in later editions.²⁷

Carlo Emanuele I inherited his father's fame as a brave fighter and an eager military man. Scamozzi dedicated a chapter on military architecture in his L'Idée della Architettura Universale (1615) to him. Unlike his father, Carlo Emanuele I wavered politically and culturally between the Spanish and the French alliances. Rather than having a single model to emulate, Carlo Emanuele I attempted to merge the best aspects of French and Spanish military architecture and urban design. He was abreast of contemporary military theory. Antoine de Ville mentions him in the treatise of 1629 as a valorous patron.²⁸ B. F. Pagan wrote of Carlo Emanuele I as a benefactor of his family.²⁹

The tendency towards the French model in urban design increased during the regency of Cristina, and became dominant during the reign of Carlo Emanuele II. Although kept from active government during the regency of his mother, Carlo Emanuele II was educated in the

military arts from an early age. In 1645 Pagan sent the young duke a copy of his fortification treatise which Vauban was to use extensively in the formulation of his fortification proposals.³⁰

The precarious location of the duchy obliged the Dukes of Savoy to be constantly ready for defensive war, a condition which mutated into a pertinacious readiness to attack. The necessity for defense became the normative condition. Mathematics, required of the military engineer, was taught at the University of Turin. The professor of mathematics, Donato Rosetti, published in 1618 an important fortification treatise. Titled Fortificazione al Rovescio, it was based on the innovative method of bastion design from the inside out which was to become the accepted way after Pagan championed it.³¹

The military architects of the crown practice in related fields of the profession. Some were officers of artillery like Ercole Negro di Sanfront who retired as governor of Savigliano. Others taught, like Rosetti, or practiced architecture like Vitozzi and Carlo di Castellamonte. The overlapping activities of the army officers in fortification, urban design, and architecture insured consistency of the formal language and the centralized control in construction.

Since the military and civil architects were often the same persons, there was a continuity of architectural expression between the civil and military structures. The overlap of interest can be best seen in the buildings of the ducal family. While formally they correspond to the aristocratic residences of Turin, they were built

of the same materials as the walls of the city, and the specialized military structures such as the arsenal, the barracks, and the military academy. The strength of these buildings, as that of the Farnese palaces in Piacenza, was achieved through large scale, uniform construction, with repetitive window dimensions assuring the severity of the facade. The brick cladding emphasized the monumentality of the building and imparted force to it through the reference the brick cladding made to the fortifications. In comparison to palaces of stone built by sovereigns elsewhere, the residences of the Dukes of Savoy seemed, and were, poorer. But the formal association of the ducal palaces with the citadel and the fortified wall gave it a dignity and a strength which inspired great respect, and demonstrated that the Dukes of Savoy were identified with the defenses of their town.

The red finish of the well-fired and beautifully laid bricks made the fortifications handsome, and continued the traditions of ancient Roman fortification. The sheer expense of cladding the walls inspired awe in visitors and potential enemies. From the accounts of the Fabrice e Fortificazioni, it is clear that the walls and bastions were rendered more costly by the brick cladding. The brick layer was an active ingredient of Turin's defenses, insisted upon for the impression it made and for its associations rather than its actual strength. It was known that battered earth walls were more resistant to battery impact. They absorbed the cannon ball rather than shatter under its impact as was often the case with masonry

walls. The aesthetic significance of the brick walls and bastions derived from its connection to the appearance of the ducal palaces. They conveyed the ducal message of unity and military might rooted in ancient traditions.

The message proclaimed the unity between Turin's military and civic domains. The consistent language of the construction materials proved the importance of the message. Its clarity was achieved through great construction expense. In order to emphasize the unity the building code promulgated by the Dukes of Savoy obliged private individuals to stucco and paint their houses uniformly white.³² The code took away the individuality of private residences and heightened the contrast with the ducal properties. The white private residences became a frame for the dark red ducal palaces at the center of town, which were directly tied to the fortifications at the edge of town. Uniform private houses, first imposed in Turin at the end of the sixteenth century, became an important tool in the urban design of the seventeenth century. The building codes imposed uniform height, facade design, and color upon the buildings along the major streets and squares of the expansions. Within the expansion only the buildings sponsored by the ducal family, representing its dynastic claims and military might, were left in unplastered brick. (But the palace in the northwest corner of the Piazzetta may have been stuccoed in the second half of the seventeenth century when it was occupied by the duke's elder sister, Ludovica, perhaps because of its location contiguous with a non-ducal residence).

Coherence was further achieved through repetitive use of a restricted number of architectural details. Social distinctions were made through the surface materials of the buildings. Spatial hierarchy reflected the separation of the ducal family from the inhabitants of Turin, and the family's dictatorial position. But the barrack-like structures, whose form was determined by the manipulation of the shallow wing, optimal for the definition of urban spaces were employed in the design of the ducal buildings as well as private residences.

Monumentality was defined at the urban scale. The Castello was the only free-standing building, and as such it had the customary character of the monument. The shallow wings adapted for residences, offices, the theatre, and the academy were manipulated to enclose urban space, which became the focus of the ensemble. The three principal streets, the spines of the three parts of town, converged on Piazza Castello. Two were axial with the Castello; the third was directed upon the portal of the ducal palace. Although of different materials, the city gates and monumental palaces connected by the axial streets were stylistically unified. In addition, the streets found a continuous definition in the uniform houses that flanked them. Through repetition the individual houses transcended their single dimensions and seemed to become one monumental building along the straight and wide passage. Thus, the streets became as important as their terminal foci.

Through its expansions east and south, Turin was transformed

into an ideal fortress as much as an actual town could become the ideal place of war. The walls and the bastions were designed and built using the latest innovations in military engineering, artillery, and firearms. In the design of Turin's interior layout, the tenets of the ideal city planning were adapted to the dominant military function. The porticoed central square, the uniform streets, and the secondary market squares corresponded to the principles of idealized urban design. The military order and discipline of the seventeenth-century piazzaforte derived from the secular uniform quality of the sixteenth century ideal city. As the capital of the duchy, Turin became an example of the extreme rigidity and uniformity that urban design could reach in its service of military hierarchy.

* * * * *

Convincing evidence of the interest of the Dukes of Savoy in military matters can be found in the court library. The library, whose contents were not as extensive or as valuable as those of the much admired gallery,³³ was nonetheless a good collection of manuscripts, incunabulae, and printed books covering a wide range of humanistic and scientific topics. The contents of the library are known to us from the inventory made by the librarian in 1659, and conserved at the Turin archive.³⁴ The inventory was divided by subjects, and was taken guardaroba by guardaroba, on the shelves of which the volumes were not systematically ordered. Thus, occasionally the books available in several copies were listed

several times.

The list of circa 700 titles included the major writings on military planning and architecture. It indicated that urban design in Turin may have been based upon study and adaptation of abstract and realized models. The inventory included the works on architecture by Alberti and Vitruvius, of which there were twelve and fourteen editions, respectively. There were three copies of Alghisi's treatise, six copies of Errard de Bar-le-Duc's, one each of the treatises by Lorini and Bellici.³⁵ The work of Gabriele Busca, employed in the army and the engineering team of the Duke of Savoy, was represented with three titles, of which Architettura and L'espugnatione were available in three copies each.³⁶ Pietro Cataneo's Architettura and the treatises on surveying were also available,³⁷ as were the works of Girolamo Cataneo, available in three copies including a French edition.³⁸

Durer was represented by one copy of De urbis, and three versions of the Simetria,³⁹ while Philibert de l'Orme's two titles were available in five and two copies each.⁴⁰ Lanteri's Fortificatione, considered one of the best treatises of the sixteenth century, as well as his Offesa et difesa della città were in the collection.⁴¹ Maggi's Fortificatione was available in six copies.⁴² There were two copies of Perret's Fortification, two copies of Savorgnan's Arte Militare, and two copies of Scamozzi's L'Idea della architettura.⁴³ Theti was represented by three copies of his Fortificationi, and there were two copies of Tartaglia's Scienza

nuova.⁴⁴ The history of military architecture and strategy was documented in the works of Vegetius, Valturio, and Vallo of which, respectively, French, Italian, and French editions were included in the ducal library.⁴⁵

Among the seventeenth-century books were the Corona Imperiale by Sardi, the Castramentation by Stevin, and Des fortifications by Marolois.⁴⁶ The breadth of the collection, including not only Italian, but also French and Flemish writers increases the likelihood that the dukes and the court engineers were up-to-date with technical and theoretical developments. In addition there were other sixteenth-century treatises on architecture, many of which contained chapters on the design and planning of cities.⁴⁷ The part of the library concerned with military defense was further rounded out by works on strategy, the equipment and training of the army, the defense and siege of cities, and the problems of artillery.⁴⁸

Although not listed in the inventory, the library included the treatise by B. F. Pagan. The author himself sent Carlo Emanuele II a complimentary copy in 1645 immediately after the work was published.⁴⁹ Other authors dedicated their books to the Savoy family. The already discussed Rosetti wrote as part of his employment, by Carlo Emanuele I, and could be expected to flatter him. Earlier, Palladio had dedicated part of his treatise to Emanuele Filiberto, for whom he may have provided a project of the Sindone chapel.⁵⁰ Scamozzi dedicated the second part of his treatise to Carlo Emanuele I. In it he had collected the best and most

innovative ideas current on military architecture.

In the transition from the design of the ideal city to the design of the ideal fortress, Scamozzi played a very important role, as illustrated by his work. He focused on military and civilian planning at urban scale, and pondered the often conflicting aspects of city planning. Scamozzi was the first to realize that military planning greatly influenced urban design in the street pattern, the relation to the countryside, and the spatial hierarchy within the settlement. He was the first to attempt a synthesis between the precepts of ideal city planning and those of military architecture. Unlike the former, the latter's essential proportions were not determined by human dimensions, but the range of musket and cannon fire. Scamozzi maintained the centralized plan illustrative of a hierarchical society, but adapted it to allow for alternative functions. The order of the ideal city was adapted to the rigorous geometry of the fortifications whose operation and maintenance placed heavy requirements upon the urban structure. Scamozzi was innovative in his conception of the urban-scaled design, which implied large open spaces, and repetitive uniform building types.

In order to clarify this issue, two examples of towns might be compared. Built in 1460-62, Pienza was an early form of the ideal city. Regularity around the major square was achieved without uniformity, through buildings that in their form described the social structure of the town. The pope's palace, the cathedral, the bishop's palace, the city hall and tower, the house of an average

citizen, and the palace of the noblemen surround the square. They coexist on the square, while their size and the materials of their facades indicate their relative importance.⁵² In comparison Contrada di Po in Turin built in 1673, was framed with a continuous row of uniform buildings within which a variety of functions was satisfied. The street began at the city gate and ended at the Castello, the symbol of ducal dominance. The organization of the street was defined by its beginning and end, and more importantly by the flanking buildings. The individual citizen, nobleman or clergyman inhabited the space behind the uniform facades. Their individuality was sacrificed to the rigorous formal definition of relationships within the city.

In Pienza order was achieved through an architectural expression appropriate to the inhabitant's rank, while in seventeenth-century Turin formal order reigned. The importance of the street or square was measured by the regularity and the uniformity of the buildings that surrounded them. Thus, the differentiated buildings of the ideal city surrounding the central abode of the prince gave way to the regimented building facades pointing to, or framing, the princely residence. The typology of buildings was reduced, private public conceptions of space replaced the social conception of space. The wide gap between the private and public imitates the army's separation into soldiers and officers, with discipline as the essential ingredient for smooth operation. The social contract agreed upon had changed greatly from Pienza to Turin, and the urban

design reflected that change.⁵³

In Scamozzi's design for the "universal city," there are elements from ideal and military planning. The regular street pattern and the circular enclosure are ideal, but the separation between edge and interior, and the grid of the secondary squares are derived from military planning. The river bisecting the star-shaped plan disrupts the ideal fortress by inserting an additional defense problem. The near-perfect combination of the concepts of ideal city planning and of military architecture illustrated in Scamozzi's treatise lasted a brief moment.

The tendency in Piedmont was towards increased militarization, a condition made necessary by the foreign policy of the Dukes of Savoy. While superior and controlled urban design was a matter of pride and social dominance, the most developed military architecture was needed for the defense of the state.

This concern was manifested through another well-endowed part of the library, the collection of maps, town views, and plans. Of these a five-volume atlas collection has survived.⁵⁴ Each volume consists of circa 120 sheets, which range from large-scale maps of entire continents or regions, to sieges, fortifications, and fortresses of foreign cities, Piedmontese towns, fortification proposals, and drawings explicative of ballistics. The number of these prints and drawing was enlarged by each succeeding sovereign. They are an index of the immediate concerns of the ducal government. The collection was augmented by the drawings of the court engineers, who after

visits to enemy towns returned with sketch views and plans which could be used for inspiration in fortification and urban design, and the formulation of attack strategy. These drawings seldom represent both the fortifications and the interior of the city.

The sketch views were complemented by drawings of Piedmontese and Savoy towns which were visited regularly by the court engineers. The drawings illustrated the condition of the fortress, and proposed repairs and improvements. The most comprehensive set is the Avvertimenti, a bound cycle of drawings prepared by C. Morello.⁵⁵ In the Avvertimenti there are 105 illustrations of towns owned, or claimed, by the House of Savoy.⁵⁶ An undated preparatory set of drawings contains fifty-six illustrations of which forty-two represent Piedmontese towns, and the rest are foreign (Lille, Maastricht, La Rochelle), or unidentified cities.⁵⁷ The drawings in the Avvertimenti were standardized, with colors used according to a simple scheme (walls are red, moats are grey, water light green etc.). The manuscript "Breve ragione del fortificare" by F. Horologgi, the construction supervisor of the citadel, had illustrated the major Piedmontese fortresses in the 1560s.⁵⁸ His drawings may have been used as templates, on which changes were registered without taking new measurements. The report on fortification became more accurate as better maps and survey instruments became available.

The ability of the ducal engineers to survey and draw plans was amply demonstrated in the plates made for the Theatrum.⁵⁹ This

elaborate publication was engraved and printed in Amsterdam, and contained illustrations of all the Savoy and Piedmontese towns, portraits of the ruling sovereigns, and the geneological charts of the dynasty.

The lavish publication was under preparation for twenty-five years.⁶⁰ Stimulated by Carlo Emanuele II, the city council of Turin commissioned a plan of the city in 1657-58 from T. Borgonio. He took three years to complete it. In 1664 the plates for the citadel and the Porta Nuova were finished by Carlo Morello and his son. In 1668 Borgonio completed the views of Venaria, Valentino, Corpus Domini, and the Cappuccini. A second plan of Turin was finished by him at the end of 1674 showing the new expansion to the east. One hundred seventeen plates were in Blaeu's shop when it burned in 1671.⁶¹

The descriptive texts were begun in 1660 by A. Valsenia, added to in 1668 by Don G. Pozzo, and by G. Guarini in 1675. Even in this large and carefully executed work there are few plans; most illustrations are bird's eye views. Plan drawings were made for the large-scale maps, such as the one of Piedmont, and for the description of Turin and its principal buildings. This scarcity of the plan, traceable in other contemporary atlases, proves that it was difficult and costly to make. But the preparation of the Theatrum was an ambitious and well-endowed project. Carlo Emanuele II would probably have commissioned more plans if they had represented his wealth and social pretensions more advantageously. Perhaps the plan was not the most desirable form of representation, since it was the

most abstract notation system available and did not celebrate the city as much as a view.

In its display of the orderly and well-fortified towns of the duchy, the Theatrum was intended to make conspicuous the humanistic concerns and the military might of the House of Savoy. The publication celebrated the unity of the ideal of urban design and military architecture. The book was the outcome of interest in knowledge, but the ability to produce it was a side effect of innovations sponsored by the military. The Theatrum demonstrated the important role the House of Savoy played in the development of military architecture. Through clever proportioning and composition of the image, the numerous fortresses of the duchy were shown to be even more awesome than they were in reality. They demonstrated that the avant-guard position acquired through the construction of the citadel of Turin had been maintained throughout the seventeenth century. The planning of the Piedmontese strongholds continued to be made from the exterior of the fortification towards the interior. Only in Turin did fortification and urban design proceed simultaneously, and only there were they considered extensions of one another. The interest of the House of Savoy in architecture at an urban scale and with a military function continued into the eighteenth century, when it is reflected in the third expansion of Turin with which Juvarra was involved.

NOTES TO CHAPTER VI

1. J. S. Ackerman, "Architectural Practice in the Italian Renaissance," Journal of the Society of Architectural Historians, 1954, 13:3-11.
2. P. Lazard, Vauban 1633-1707, Paris, 1934, 3.
 ". . . Une telle operation (siège) nécessitait des machines spéciales qu' on appelait engins au Moyen-Age. D'ou le nom d'Ingénieur appliqué à ceux qui faisaient construire les engins et qui en dirigeaient la mise en oeuvre dans l'attaque, et la defense, des places."
 C. Pedretti, "Leonardo da Vinci," A. Placzek, ed., Macmillan Encyclopedia of Architects, 4 vols., New York, 1982, v. II, 684.
 ". . . The Renaissance term "ingegno" for machine explains etymologically the designation of "engineer" in a classical sense, which it retained somewhat in the English language, of one who is dealing with the technological aspects of architecture in general and of military architecture in particular. The invention of war machines, . . . pertains to the architect in his capacity of engineer, that is, the engine maker."
3. The convention of engineers is discussed by H. de la Croix, "Military Architecture and the Radial City Plan in Sixteenth Century Italy," Art Bulletin, 1960, 263-290.
4. For the talents required of military architects see P. Lazard, Vauban 1633-1707, Paris 1934, 11.
 ". . . avant tout, l'ingénieur doit connaitre les propriétés de l'artillerie; il doit aussi être soldat, avoir participé à l'attaque et à la defense de forteresses. Ce n'est qu'en dernier lieu, qu'Errard (de Bar-le-Duc) lui demande d'être géometre."
 That Errard's requirements were not universally shared is indicated in Giacomo Lanteri's Due Dialoghi, Venice, 1557, largely a study of surveying and geometry as evidenced in the titles of the two discourses:
 1. Del Modo di disegnare le piante delle fortezze secondo Euclide,
 2. Del modo di comporre i modelli e porre in disegno le piante delle citta.
 The lengthy list of chapter headings outlining what a military architect should know, in F. de' Marchi's Architettura Militare, Brescia, 1599, probably discouraged all but the most devoted professionals.

5. There are numerous examples of these written reports, with illustrations describing the state of fortresses visited, at AST, Sez. Ia., Lettere Particolari, Castellamonte; BR Torino, Mss.Militari 178; BAV, Barb. Lat., 9911, 9901, Vat. Lat., 10700.
6. N. Adams, "Baldassare Peruzzi," Dissertation, New York Univ., 1976.
According to C. Augoyat, Apercu historique sur les fortifications, les ingénieurs et sur le corps du Génie en France, Paris, 1860, most engineers were not nobles, and held mostly the rank of captain; J. F. Pernot, "Les ingénierus du Roi 1624-1661," maitrise, Paris, 1968, agrees, adding that the military engineer retired customarily as governor of a fortress.
7. For the development of cartography see:
E. Guidoni and A. M. Guidoni, Storia dell'urbanistica: Il Cinquecento, Bari, 1983, 128-47; E. Pognon, "Les Plus Anciens Plans de Villes Gravee et les Evenements Militaires," Imago Mundi, Amsterdam, 1968, 22:13-19.
8. Guidoni, op. cit.
9. For a discussion of the differences between the various methods of representing the city (perspective, bird's eye view, plan) see:
J. A. Pinto, "Origins and Development of the Ichnographic City Plan," Journal of the Society of Architectural Historians, 1976, 35:35-50.
10. S. von Moos, Turm und Bollwerk, Zurich, 1974; also R. V. Tooley, "Maps in Italian Atlases in the Sixteenth Century," Imago Mundi, Amsterdam, 1939, III, 12-47, according to whom maps were first compiled into atlases around 1570 in Italy, which permitted Italian maps to survive in better condition than northern maps.
11. For an example of this arrangement, and the difficulties inherent in it see:
BAV, Barb. Lat., 9296, 1626, letters from P. P. Floriani from Ferrara to the Pope protesting the Pope's refusal to allow publication of his treatise, and pointing out that the drawings are without scale, unlabeled, and inserted with other drawings of similar quality and subject.
12. A. M. Guidoni, "L'architetto e la fortezza," Storia dell'arte Italiana: Momenti di Architettura, Turin 1983, v. XII, 87.
13. E. Guidoni and A. M. Guidoni, Storia dell'urbanistica: Il Cinquecento, Bari, 1982, 394-405.

14. G. Kubler, "Francesco Paciotto, Architect," Essays in Honor of Karl Lehman, New York, 1964, 176-89.
15. See note 21.
16. L. Partridge, "Vignola and the Villa Farnese at Caprarola," Art Bulletin, 1970, 52, 81-87.
17. Ibid., 81-87.
18. For an analysis of the Farnese patronage in Parma and Piacenza see:
B. Adorni, L'architettura farnesiana a Parma, 1545-1630, Parma, 1974, 53; B. Adorni, "Il palazzo di corte e la cittadella bastionata contro la città," Le corti farnesiane di Parma e Piacenza 1545-1622, Rome, 1978.
19. Alessandro Farnese's interest in military architecture is documented in his study, "Commentarij di varie regoli e disegni di architettura civile e militare," Mss.663, Accademia dei Lincei, Rome.
20. For a discussion of the battle of St. Quentin, the events leading up to it, and the outcome see:
Corrado Vivanti, "La storia politica e sociale," Storia d'Italia, Turin, 1974, v. II, 385-397; and R. Romano, "La pace di Cateau-Cambresis e l'equilibrio europeo a metà del secolo XVI," Rivista Storica Italiana, 1949, 61:539.
21. For discussion of Emanuele Filiberto, his character and his contributions see:
Brunelli, ed., I diari delle campagne di Fiandra, Turin, 1928.
"Emanuele Filiberto," Torino, 1928, special issue.
C. Patrucco, ed., Lo stato sabauda al tempo di Emanuele Filiberto, Turin, 1928.
A. Segre, Emanuele Filiberto, Turin, 2 vols., 1928, v. II, 281-84.
G. Tosi, De vita Emmanuelis Philiberti allobrogum ducis, et subalpinorum principis, libri duo, Turin, 1596.
22. Cat. 3, 4.
23. C. Castellamonte, Parere sopra la fabrica dell'imbocatura da farsi al naviglio che scorre da Ivrea a Vercelli, Turin, 1616.
24. F. Horolloggi, "Breve ragione del fortificare," BN, Florence, coll. Magliabecchiana, mss.127, classe XIX; there is an 1843 manuscript copy by Odoardo Giusti at BR, Torino.

25. The following towns are illustrated in plan: Ceva, Pongone, Cortemiglia, Alba, S. Stephano, Diano, S. Damiano, Villanova, Chieri, Verrua, Moncalvo, Casale, Santhia, Gaglienino, Ivrea, Marino, Varolengo, Chivasso, Torino, Pinerolo, La Rocca dei Baldi, Mondovi, Villafranca, Bene, Savigliano, Centalo, Busca, Albano, Vigliena, Carmagnola. There are views of: Cisterna, Saluzzo, Revello, and Ormea.
26. Gabriele Busca, Della espugnazione et difesa delle fortezze, Turin, 1585.
27. Carlo Promis (1808-1872) was a prolific and meticulous historian of Turin, Piedmont, and military architecture who made a significant contribution as a city planner to urban design in Turin in the 1860s. For a discussion of his influence as a planner see:
Forma urbana, v. I, t. II, 1086-98.
 Promis' biographies of military engineers were published between 1862-74 in the Miscellanea di Storia Italiana, v. I, III-VI, XII, XIV.
 See also, Francesco di Giorgio Martini, Trattato di architettura civile e militare, C. Promis, ed., 2 vols., Turin, 1841.
28. Antoine de Ville, Les Fortifications, Lyon, 1629, introduction. See also J. F. Pernot, "Les ingenieurs du Roi 1624-61," Paris, 1968, according to whom A. de ville participated in 1625 in the defense of Verrua, besieged by the Spanish, and was rewarded by the Duke of Savoy in 1626 with the order of Ss.Lazaro e Maurizio; C. Augoyat, Apercu historique sur les fortifications, les ingénieurs et sur le corps du Génie en France, Paris, 1860, v. I, 13-42.
29. Les Fortifications du Comte de Pagan, Paris, 1645, introduction. According to Pernot, op. cit., Pagan was at the Susa pass in 1629 where he was presented to the Duke of Savoy. For the history of the 1629 battle at Susa, the battle of Verrua, and the general military history of Piedmont see:
 A. de Saluces, Histoire militaire du Piemont, 4 vols., Turin, 1818, v. III, 295-300, 238-58.
30. AST, Sez. Ia., Lettere Particolari, P, mazzo, 1.
 For Pagan's role in the development of Vauban's fortification practice see:
 P. Lazard, Vauban 1633-1707, Paris 1934.
31. D. Rosetti, Fortificatione al rovescio, Turin, 1618.

32. See note 36, Chapter III.
33. For a discussion of traveler's accounts of the gallery see: Notes to Chapter I, 26-40. It was favorably described by Prince de Conde (1624), Coryat (1611), Duval (1656), Lassels (1670), Pacichelli (1685), Sainte-Maure (1724).
34. AST, Sez. Ia., Real Casa, Gioie e Mobili, mazza 5 d'addizione, n. 30, 10-75, military subjects 54-74, but also scattered.
35. In the inventory books are listed by author, often without a first name, and an abbreviated title. There are no publication dates, but the date of the inventory, 1659, can be used as a terminus post quem date.
The standard references to these works are:
L. B. Alberti, De re aedificatoria libri decem, 1485.
Vitruvio, Dieci libri dell'architettura, Barbaro, ed., 1556, 1567², 1584³, 16294.
G. Alghisi, Delle fortificatione libri III, 1570.
B. Lorini, Delle fortificationi libri cinque, 1596, 1597², 1609³, 16594.
G. B. Bellici (or Belluci), Nuova invenzione di fabricar fortezze di varie forme, 1598 (but written in 1554).
J. Errard de Bar-le-Duc, La fortification demonstrée et reduicte en art, 1604, 1617², 1620³ (enlarged).
36. B. Busca, Della architettura libro primo, 1607; Della Espugnatione et difesa delle fortezze, 1585; Instrutione de' bombardieri, 1545.
37. P. Cataneo, I 4 primi libri di architettura, 1554; Due Matematiche,
38. G. Cataneo, Dell'arte del misurare libri II, 1584; Opera Nuova di fortificare, 1564; Dell'arte militare libri cinque, 1584; Le Capitaine, 1574, 1593².
39. A. Duerer, De Urbibus arcibus, castellisque condendis, 1535; Della Simetria dei corpi umani, 1594.
40. Ph. de l'Orme, Le premier tome de l'architecture, 1567; Nouvelle inventions pour bien bastir, 1561.
41. G. Lanteri, Due libri del modo di fare la fortificatione di terra, 1559; Offesa et difesa della città, 1601.

42. G. Maggi, Della fortificatione delle città, 1564.
43. J. Perret, Architecture et perspective des fortifications, et artifices, 1601, 1602², 1620³.
G. Savorgnan, Arte militare, 1599.
V. Scamozzi, L'idea della architettura universale, 1615.
44. C. Theti, Discorsi di fortificationi, 1569.
N. Tartaglia, Nuova Scienza, 1537.
45. F. Vegetius, De re militari, libri V, 1525, 1540², 1551³.
Valturio, De re militari libri XII, 1460.
Vallo, Libro contenente appartinentie ad capitani, 1521, 1524², 1526³, 1554⁴, 1564⁵.
46. P. Sardi, Corona Imperiale dell'architettura militare, 1618.
S. Marolois, Ouvres mathématiques, 1614, 1628², 1633³, 16514.
S. Stevin, Castramentatio, 1617.
47. A. Palladio, I 4 libri dell'architettura, 1570.
G. Barozzi da Vignola, Regola delli cinque ordini d'architettura, 1562, 1596².
G. Vasari, Vite de' piu eccellenti pittori, scultori ed architetti, 1550, 1568² (enlarged).
48. Many of the books in the inventory are listed in M. J. D. Cockle, A bibliography of English military books up to 1642, and of contemporary foreign works, London, 1900, 1957²; P. Riccardi, Bibliografia matematica italiana, Modena, 1870; and are discussed in H. de la Croix, "The literature on fortification in Renaissance Italy," Technology and Culture, 1963, n. 1, 30-50.
49. AST. Sez. Ia., Lettere Particolari, P, mazzo 1.
50. For the significance of Palladio's role see:
N. Carboneri, "Vicenda delle cappelle per la Santa Sindone," Bollettino della Società Piemontese di Archeologia e Belle Arti, 1964, 18:98.
51. See the title page, libro II, parte I in V. Scamozzi, L'idea dell'architettura universale, Venice, 1615.
52. E. Carli, Pienza, la città di Pio II, Rome, 1961, 1967².
L. H. Heydenreich, "Pius II als Bauherr von Pienza," Zeitschrift für Kunstgeschichte, 1937, 6:105-46.
Memoirs of a Renaissance Pope, Gabel, ed., London, 1960, 282-89.

53. The main square of Vigevano, intended as an entry court for the ducal Castello, was rendered static, in its seclusion from the main streets whose entry points are masked by uniform facades. The significance of the square lay in the surprise experienced when one "stumbled" upon it.
54. AST, Sez. Ia., Architettura militare, 5 atlas vols. According to von Moos, op. cit., after 1570 collections of maps of countries and cities could be found in all ducal and royal libraries of Europe since military architecture was the "international style" of the sixteenth, seventeenth, and eighteenth centuries.
55. BR, Torino, Mss.Militari 177, Carlo Morello, Avvertimenti sopra le Fortezze di SRA, 1656; Mss.Militari 178, Piante di Fortezze is similar to it; it may well have been a preparatory version to Mss.Mil.177.
56. For instance, n. 3, plan of Genoa, BR, Torino, Mss. Militari 177.
57. The illustrations in "Piante di Fortezze," in order are: proposed enlargement of Turin towards the Po, by Arduzzi, plan of Turin after the expansion south, citadel of Turin, plan of Turin (similar to first plan), Vercelli, Castelletto, unidentified, Trino, nine-bastioned fortress, Verrua, Villafranca d'Asti, Asti, (twice), Miraboc, Alba, by Arduzzi, Alba again, Mondovi, fortress of S. Carlo, view of S. Carlo, Miraboc by Arduzzi, Luserne by Quadropane (dated 1663), fortress of S. Maria, Mondovi (dated 1681), Cuneo by Arduzzi, Pancale, Carmagnola, Carmagnola by Arduzzi, Carmagnola again, citadel of Nizza, Nizza by Arduzzi, portion of citadel of Nizza, profiles of Nizza by Arduzzi, portions of Nizza citadel by Arduzzi, detail of the Nizza fortress by Arduzzi, S. Hospitio fortress, Villafrana by Guiberto, unidentified fortress, Ivrea, (twice), castello of Ivrea, detail of Ivrea' fortification, Asti, three unidentified town plans, Piacenza, siege of Valenza, Pavia, Borgomanero, printed map of Lille, dated 1671, Maastricht, siege of La Rochelle, siege of Roser, two sheets with battle formations.
58. Horologi, op. cit.

59. Theatrum Statuum Regiae Celsitudinis Sabaudiae Ducis, Pedemontii Principis, Cypri Regis Pars I exhibens Pedemontium et in eo Augustam Taurinorum et loca viciniora Pars altera illustrans Sabaudiam et caeteras ditiones Priore Parte derelictas, 2 Tomi, Amstelodami, apud haeredes Ioannis Blaeu, MDCLXXXII.
60. F. Rondolino, "Per la Storia di un Libro," Atti della Società Piemontese di Archeologia e Belle Arti, 1905, 7:328.
It has been reprinted as the preface of the facsimile edition of Theatrum, Turin 1964, Bottega di Erasmo.
61. M. Casciato, "La Cartografia Piemontese," Storia della città, 1979, 12/13:5-18; A. Griseri, "Urbanistica, Cartografia e Antico Regime in Piemonte," Storia della Città, 1979, 12/13:19-38.
62. Forma urbana, v. I, 1240-1263.

APPENDIX I : CATALOGUE OF DRAWINGS AND PRINTS

N.B. The Catalogue refers to Plates 1-30.

1

Roman plan of Turin and view from the east

Pen, brown ink and wash; 420 x 295 mm.

Inscription: at center, Turino.

Scale in 100 trabucchi.

AST, Sez. Ia., Architettura Militare, v.V, f.109r.

Pentagonal fortress is traced in dotted line over the center of the east wall. The Roman castrum is shown with its fortifications added in the 1530's. The Castello is the only building shown in the plan. The breaks in the Roman wall were part of the sixteenth century strengthening of the walls. There is a break in the moat of the east wall. The view shows the citadel under construction, the east wall with Porta Castello and the galleria.

The discrepancy between the plan and the view indicates that the drawing was done in two stages, as a study for the location of the citadel, and a view of Turin with the citadel under construction. It is similar to a drawing by F.Horologgi in "Breve ragioni del fortificare", BN, Florence, Coll.Magliabecchiana, cod.127. The drawing was probably done soon after Emanuele Filiberto returned to Turin, at least the plan. Since it was Horologgi who supervised the construction of the citadel, the drawing can be attributed to him, and dated c. 1563.

Bibliography: Comoli-Mandracci (1983), fig.5, cat.no.2.

2

Bird's eye view of Turin with multiple frames

Pen and brown ink on parchment; 430 x 670 mm; mounted and framed.

Inscriptions: clockwise from upper left, Carolus Emanuel Dux Sabaudiae S.Rom.Ecclesie Defensor Carolus Emanuel Dux Sabaudiae Franc.

Reginia Opi.Santi Michael eques Carolus Emanuel Dux Sabaudiae Univer-
se Chr.Rel.Protector Carolus Emanuel Dux Sabaudiae Serenissime

Reip.Ven.Filius, clockwise from left, Morea, Rhodum, Thenedos,

Cyprus, clockwise, Aix Ripa, Monregalis, Cuneum, Asta, Fossanum,

Pinerolum, Moncalierum, Vercellae, Bugella, Eporidia, Secusia, Au-

gusta, Genevra, Billicium, Burgu, Thononum, Gavum, Bonavilla, Ane-

cium, San Maximum, Musterum, Saniganum, Castellarium, Camberium,

clockwise, Niza, Senalium, Montalbanum, Villa F(ranca), at center,

che conturba et acquieta gli elementi, at bottom right, D.Hieronimus

Righettinus Ven. Can.R.L., at bottom center, Nec Minima des

Picit Premio et Pena.

AST, Sez.Ia.

The plan of Roman Turin is clearly illustrated, streets are defined by buildings, the walls and towers are indicated and the new citadel is shown finished. The east wall is best illustrated, with Porta Castello, Castello, galleria, and ducal palaces minutely drawn. The view is surrounded by concentric rings of clouds, with a bull at top center, winds from south, west and north, Vulcan forging a sword balances the citadel, figure of Fame at bottom center, flames, with alternating bees and salamander, air, with geese, male deity with vulture, female deity with peacock, water, with galleons, male deities and four islands, land, with hills

and rivers, agriculture represented at south-east, viniculture at north-east, towns of the duchy. Four ports connect the water and land rings. A decorated frame surrounds the concentric rings, coat of arms of the House of Savoy at top center, Order of Maurizio at bottom center, collar of the Order of Ss. Annunziata surrounds the coat of arms and ties it to wreaths of fruit of the land and the water. Clockwise from top, the frame is decorated with mirror, books, globe, musical instruments, compass, figure of Justice, War, Fortitude, followed by flags, drums and trumpets, spoils of war, slaves, cannon and shot, slaves, spoils of war, Forgiveness, Peace, Prudence, instruments of science, astronomy, the Trinity and the Host. The corners of the drawing clockwise from top left are filled with papal tiara and keys, crown and lilies of the French monarchy, medal of Virgin and the Child with patriarch's tiara, doge's cap and the lion of St. Mark, equestrian figures, seated figures.

This illustration is the first full view of the completed citadel. The symbolic images suggest that the drawing was intended as a representation of the claims of Duke Carlo Emanuele I.

Bibliography: Comoli-Mandracci (1983), fig.10, cat.no.10; Peyrot (1969), fig.10.

3

Plan of Turin with proposed circular enlargement

Pen and black ink, red and green watercolor; 560 x 410 mm.

Inscriptions: in cartouche at lower left, Disegno e parere fatto dal Cap.o Vitozzo Vitozzi sopra l'acrescimento di Torino.

AST, Sez. Ia., Carte topografiche per A e B, Torino.

Plan of Roman Turin with bastions at the center of each wall. The expansion proposal consists of a radiocentric plan, with circular and bastioned fortifications attached to the south wall of Turin. The Dora and the Po are indicated, with the bridge over the latter and the road to the Cappuccini.

The drawing style is similar to that of the almond-shaped proposal. The expansion would add another perfectly geometrical form to Turin's pentagonal citadel and square castrum, without making spatial connections between the parts, and without altering formally the existing city. The drawing probably dates from the late sixteenth century, between the arrival of Ascanio Vitozzi in 1584, and the death of his nephew Vitozzo, before 1615.

Bibliography: Comoli-Mandracci (1983), fig.24, cat.no.14; Forma urbana, v.I, III, A, doc.5.

4

Plan of Turin with proposed oval enlargement

Pen and black ink, green and yellow watercolor; 582 x 446 mm.

Inscription: in cartouche at lower left, Disegno fatto dal Cap.o
Vitozzo Vitozzi.

AST, Sez.Ia., Carte topografiche per A e B, Torino.

Plan of Roman Turin with a bastion at the center of the west, north, and east walls. The expansion proposal consists of an oval plan, with a bastioned fortification enclosing the old walls and connecting to the citadel. The Dora and the Po are indicated, with the road to the bridge over the Po connecting the city to the Cappuccini.

The drawing style is similar to the other expansion project by Vitozzo. This proposal would have altered entirely the formal composition of Turin, and brought it close to the Dora. The proposal was uneconomical since it did not reuse the existing walls. The drawing was made probably at the same time as the radial city proposal, between 1584 and 1615.

Bibliography: Comoli-Mandracci (1983), fig.23, cat.no.15; Forma urbana, v.I, III, A, doc.6; Peyrot (1969), fig.13.

5

Template plan of Turin

Pen and brown ink, and charcoal; 820 x 515 mm, two sheets glued together; transfer holes.

Scale in 180 trabucchi.

AST, Sez. Riunite, T 460.

The walls of Turin are bastioned at three corners, the moat of the perfectly pentagonal fortress is continuous with that of the city. The far bastion of the fortress is connected with a line to north-east bastion. The gates are shown with bridges, over the moat east of Porta Palazzo, and south of Porta Castello, which is connected with a line to the bridge over the Po. The Dora is drawn in detail, showing various branches and one bridge. The north-west corner of the city is shown with a projected horn, and there is an opening suggested in the notching of the moat in the south-east corner.

The transfer holes indicate the use of this drawing as the template for several succeeding studies. The opening in the south wall near the south-east bastion was made after Ascanio Vitozzi's arrival, but before the formal opening of that gate, and the street connecting it to the Castello, in 1615.

A similar drawing, from the BR, Turin, has been published by Comoli-Mandracci (1983), fig.7, cat.no.4.

6

View of Piazza Castello

Pen and brown ink, brown wash, touches of gilt; 427 x 558 mm; two sheets glued together, watermark on upper sheet: cross above a shield.

Inscriptions: at lower left, Monsa 1605 , clockwise from upper right, Strada del Parco, Strada del Po, Palazzo antico, segno di porta anticha che hora si osserva, fossi, fossi della citta, Porta nova con cortile, fossi, disegno del sito del novo palazzo de S.A.S. et castello con strada nova porta a rimpeto al castello o palazzo, fatto de Monsa li 5 magg. da pntare a SAS Ser.mo, il aver-tore che pnte disegno ha fatto con arte d'architettura...serve per pianta e rimonstrare...accomodamento della Piazza nova della citta a V.A. secondo sole ingegno Porta de la citta di Turino e nova fabbrica, clockwise from left within city walls, cuba di S.Gioanni, lobieta, Porta, Palazzo novo de S.A. gia cominciato, Galeria anti-cha, Statua di S.A.S.ma da ponere, qui e al pnte una isola di case con la fonderia quale facendo la fabbrica conforme il pnte disegno andera getata a terra, Piazza Castello dinanzi al Palazzo novo di S.A., brachille d'acqua per comodo della piazza e abeverar cavalli, casa della soldati, galleria nova che corre sino al bastione della porta nova, loco da fondere artilarie, portici, strada nova metendo a terra le case vi sono il che sara poca spesa a S.A. la qualle e di rimpeto al palazzo novo, portici con bottego, novo bastione, piazza a meza luna nel entrar della citta, strada delle muraglie ,

Zaffarone, strada che va alle muraglie, trincotto, corte del palazzo della S.ma Marchessa de Pianezza, Portici che corrono attorno la piazza con botteghe, strada, portici, Doira grande che va verso il Castello, portici che corrono sino dal Senato overo sino alla scuderia di S.A., strada che va a S.Gio., strada della scuderia di S.A., Trincotto, loggia coperta.

ASC, Turin, Coll. Simeom.

This drawing illustrates the restructuring of Piazza Castello, with porticoes proposed around the sides, a porticoed street is proposed on axis with the rebuilt ducal palace, and there is an exedra suggested for the opening in front of the south gate. The text on the drawing clarifies the proposed changes, and the existing situation.

This drawing has been discussed at length by V.Viale, who concluded that it was an unimportant contribution by a minor draughtsman at court. Nonetheless, the drawing does show a number of urbanistic interventions which were realized soon after. The porticoes were built for the wedding ceremony of 1608, the street to the south opened in 1615. Even if this drawing is not by a franchised designer, it demonstrates that certain urban design ideas were current at court, and shared among courtiers.

Bibliography: Comoli-Mandracci (1983), fig.13, cat.no.13; Peyrot (1966), fig.15; Carboneri (1966), fig.157, pp.122, 124, 137; Viale (1942); Re (1982), fig. on p.49.

7

Autograph plan with expansion proposal

Pen and brown ink, yellow, red, and grey watercolor, charcoal marks;

787 x 478 mm.

Inscription: at top, fatto di mano del Ser.mo Principe, N 2.

Scale in 130 trabucchi.

AST, Sez. Riunite, Sez.IV, 2.

The drawing illustrates the Roman city with alternative fortifications suggested for the north and west walls. The proposed expansion is to the south and to the east, with two fortification proposals for the Po shore. The expanded walls are paralleled by a wide street. The connection between the citadel and the south wall is made through a half bastion, as is the connection in the northeast corner. There are three streets lightly sketched in which connect the Po to the Castello, the Po to the citadel, and Piazza Castello to the edge of the proposed south wall.

The design of the bastions is old fashioned, adopting the design of the citadel's bastions, the connections between the proposed fortifications and the existing ones is awkward and uneconomical. The drawing dates probably from the first decade of the seventeenth century, made after the planning studies of Vitozzi. It records the intentions of Duke Carlo Emanuele I for the expansion and it was probably drawn by the duke or by his heir, who died in Spain. This drawing is important because it demonstrates that initially the intention was to expand south and east at the same time.

8

Plan of expansion proposal with street grid

Pen and brown ink, light green, and red watercolor, charcoal marks;
660 x 133 mm; transfer holes, mounted on canvas.

Inscription: numbered parcels in the south expansion area, Giardino del Sig.r Cernusco, sep. d'Hebrei, Monaci di Casa Nuova, Pri. Zoccolanti riformati.

Scale in 220 trabucchi.

AST, Sez. Ia., Carte topografiche per A e B, Torino .

Plan of Citta Vecchia with street lay-out, and major buildings, including the circular Ss.Sindone, citadel, expansion to the north in a semi-circle, expansion to the south with the street lay-out and some parcel subdivision, expansion to the east with a triad of streets opening from the Po gate, two fortification alternatives for the Po bridge, the hillside across the river is also to be fortified, surrounding the Cappuccini and the Vigna della Regina. The blocks and street grid in the east part of the expansion are irregular, there is a trapezoidal open space. The grid of Citta Vecchia is extended faintly over the south wall, the east wall of the south expansion is also sketched in lightly. The names of the bastions are not legible, but each one is labelled. The street between the Piazza Castello and Palazzo di Citta is shown ; it was opened in 1619. The site for the church of San Carlo, construction began in 1619, is shown occupying an entire block.

The drawing predates by a few years the beginning of the expansion to the south. Since the new street in the Citta Vecchia is illustrated, but the church of San Carlo is not, the drawing was probably made in the few months between the initiation dates of the two projects, in 1619.

Bibliography: Comoli-Mandracci (1983), fig.28, cat.no.21; Forma urbana, v.I, III, A, doc.25.

9

Fortification project with view of Turin

Engraving.

Les Fortifications du Chevalier Antoine de Ville, Lyon, 1629, Livre II, f.42, Biblioteque du Genie, Paris.

Beside the project for fortification, shown with two concentric rings of foreworks, there is a view of Turin from the east. Porta Castello, the galleria, and the citadel are clearly represented, as is the Cappuccini hill. There is no physical connection between the city and the citadel, and the Citta Nuova, begun nine years before the publication of the treatise, is not indicated.

The illustration is likely to predate the beginning of the Citta Nuova expansion.

10

Sketch study plan of the expansion to the south

Pen and brown ink, charcoal marks; 935 x 504 mm, mounted on canvas.

Inscription: at lower right illegible list of calculations.

Scale in 120 trabucchi .

AST, Sez.Ia., Carte topografiche per A e B, Torino .

The walls of Citta Vecchia are shown intact, with foreworks suggested at north and north-west. Piazza Castello is shown with three street emanating from it, to the north, south, and west. The connection between the citadel and the south wall is shown in two alternatives, as seen in the autograph plan by Carlo Emanuele I, and in the study plan of 1619. There are several fortification alternatives for the area east of Citta Vecchia, bastioned and pallisaded. There is a square fortress north of the Po bridge near the river. The diagonal street between the Castello gate and the Po bridge is flanked by several buildings, and there is a sizable settlement next to the river.

This drawing is significant because it illustrates that the expansion was reduced before it was started. The expansion area to the south was separated from the eastern part by a pallisaded wall. The connection between the citadel and the south wall has been improved, but only the first two bastions seem to be complete. Since the old connection is also marked, and the east boundary of the reduced expansion is not clear, the drawing is probably from the early twenties, before the fortification was almost abandoned towards the end of the reign of Carlo Emanuele I.

Bibliography: Comoli-Mandracci (1983), fig.29, cat.no.20; Forma urbana, v.I, III, A, doc.10.

11

Presentation plan of the southern expansion

Pen and brown ink, charcoal marks, red and yellow watercolor;

727 x 552 mm; two sheets glued together, both with watermark, a flower above five equal fingers.

Scale in 100 trabucchi.

AST, Sez.Ia., Carte topografiche per A e B, Torino

The fortifications of Citta Nuova are indicated, one full and two half bastions have been built in the south wall, the fortification of the eastern part of the expansion seems to consist of palisades, there is a square fortress north of the Po bridge, near the Po, and another fort near the Dora, north-west of Citta Vecchia. The fortification of the south wall includes two ravelins in front of the wall curtains.

This drawing is significant because it shows the state of the fortifications before construction was started again under Vittorio Amedeo I in 1632. The illustration was most likely part of the stock-taking of the previous achievement before the new building campaign could commence.

Bibliography: Comoli-Mandracci (1983), fig.30, cat.no.19, Forma urbana, v.I, III, A, doc.8.

12

View of Turin

Engraving, brownish; 465 x 265 mm.

Inscription: at bottom left, Ville de Bude, at top right, Tral.¹

Estampes, Vb.132v, f.2, BN, Paris.

View of Turin from the south-east, from a hill across the Po, the Cappuccini is visible at right, the Valentino Villa at left. A dry moat surrounds Turin, which is shown densely built up, with numerous towers. The east wall of Citta Vecchia, the Castello and the galleria are clearly visible. There is a large open area between the citadel and Citta Vecchia. In Citta Nuova there are buildings only along the main north-south road which connects the two south gates. There are two complete bastions, there is a seven-arch bridge over the Po, and a sizable settlement on the Turin side of the bridgehead.

This view shows the construction accomplished in the twenties, and is thus similar to the presentation drawing of the late 1620's or the early 1630's. Since we have a view from the same point drawn in 1632 and in which construction is shown somewhat more advanced, this view may be dated c. 1630.

1. J.Nicolas de Tralage, d.1699, geographer, councillor of the Parliament of Paris, bequeathed his mythological and topographical collection of 32,429 pieces to the abbey of S.Victor, which became part of the national collections in 1798.

13

View of the construction site of the southern fortification

Engraving, 230 x 148 mm.

Inscription: at lower right, G.Boetto, RT and FE in the chain of the Order of Annunziata.

ASC, Turin, Coll.Simeom, D142.

The view is framed by a scroll. It is taken from a hill on which stand the duke, on horseback, and the architect with the drawing beside him on the ground. Two bastions flank the southern gate, the ten blocks of Citta Nuova have been laid-out. Citadel and Citta Vecchia are visible, as is the busy construction site, but the center of the engraving is damaged.

There are two opinions regarding the identity of the equestrian figure. Peyrot believes it is Vittorio Amedeo I, Comoli-Mandracci thinks it is Carlo Emanuele I. Since the construction is more advanced than in the presentation plan of the late 1620's or early 1630's, this illustration must also be later. The festive framing of the view suggests that it may have been part of the formal beginning of the campaign to complete the fortifications.

Bibliography: Comoli-Mandracci (1983), fig.31, cat.no.24; Peyrot (1965), fig.23, cat.no.23; Forma urbana, v.I, III, A, fig.65; Peyrot (1969), fig.23.

14

Plan by Montafilans

Pen and brown ink and wash; 714 x 168 mm; mounted on paper.

Inscription: at bottom right, Montafilans 1632 may, top right,

Maxime,

1. Suivant lesquels desseins et calculs se fortifieront toutes autres places regulieres et irregulieres et tiendrons pour maxime que les places qui seront fortifier comme dessus seront meillieurs que les autres

2. Que le ligne de defense qui sorte l'angle du flanq a l'angle du boulevart nomme ligne de defense fichante ne doit estre guerre plus longue du 75 trebuc parceque c'est la porte de mousquet mai si on veut defendre la place ou autremont dit le front avec le canon elle peut estre longue de 125 ou 150 trebuc

3. Que tant plus l'angle de la tenaille est petite tant meillieure est parceque les places se gardent plus directement c'est pour que qu'en dessein au dessus du dodecagone ou fera l'angle du boulevart seulement de 90' affin que l'angle de tenaille soit plus serre

4. Tout plus la place est grand et la gorge grande et spatieuse tant meillieurs ils sont parceque il sont plus capables de defandre

5. Que tant plus avant la deffence se fait en la courtine le meillieur il est parceque le feu il est plus grand estendue et le lieu pour defendre les places, voila aussi pourque en dessein au dessus du dodecagone on fera l'angle du boulevart de 90' degres affinque le feu soit de plus grande estandue

6. Que l'angle flaque ne doit estre moins que 60' pour le plus 90'

degres

7. Que l'angle du poligone qui on propose a fortifier ne doit estre plus petit que 90' degres mais tout plus grand il sera le meilleurs.

8. Que en toutes fortresses nous posserons la face de 30 trebuc, e la courtine de 45

9. Que l'angle flanquant interieurs ne doit estre moins de 15 degres mais tant plus il est grand tant meilleur

10. Que l'angle de flanc est toujours l'angle de l'espaule et pour le moins 105 degres e plusqu'il sera grand tant meilleur sera.

Scale in 200 trebuc.

AST, Sez. Ia., Carte topografiche per A e B, Torino.

Plan of Citta Vecchia with street grid and old fortifications, of the citadel and Citta Nuova. The proposal is to enlarge the walls of Turin, to the north and to the west of the Roman walls, and east towards the Po, with two fortification alternatives suggested for the Po shore.

This drawing considers the fortification of Citta Nuova as an accomplished fact, and proposes new directions for enlargement. The novelty of the proposals rests perhaps in the suggestion to expand to the west, engulfing the citadel from that side.

Bibliography: Comoli-Mandracci (1983), fig.38; Forma urbana, v.I, III, A, doc.12.

15

Piazza Reale Plan

Pen and black ink, charcoal, grey watercolor; 733 x 540 mm;
two sheets glued together, watermark on lower sheet, U with an
inverted V above it; transfer holes.

Inscription: at bottom center BR, at bottom left, Hen,¹ on reverse,

Pianta Citta Torino Stabilita.

Scale in 180 trabucchi.

Estampes, Vb.6, f.36, BN, Paris.

Plan of Citta Vecchia with a few blocks sketched in the south-west corner, foreworks in the north and the north-west, foreworks at the south-west corner of the citadel. The Citta Nuova is shown with rows of blocks traced over the south walls and moat of Citta Vecchia. There is a square next to the old south gate, the fortifications are modernised. Contrada Nuova is clearly marked, as well as Contrada di Po. There are several fortification alternatives suggested for the area east of the walls, and the Po bridge is shown fortified on the hill side. There is additional fortification north of the Dora in the form of a horn.

The importance of this drawing comes from the suggestion for the Piazza Reale, which occurs here in graphic form for the first time. The transfer holes with which the blocks of Citta Nuova are marked indicate that the area was being studied, with the intention of tearing down the wall which separated Citta Nuova from Citta Vecchia. Since the fortification of Citta Nuova was not completed until 1637 this drawing must be later. The blocks that flank the future Piazza Reale are parcelled, and those parcels were given by the regent Cristina to court favourites, starting in 1638. Thus, the drawing dates probably from shortly before the civil war.

Bibliography: Comoli-Mandracci (1983), fig.44.

1. For Hennin, assistant to the Viceroy in Italy, receiver-general in

Italy from 1809, chamberlain of Prince Eugene, see George Duplessis, Inventaire de la collection d'estampes relatives a l'histoire de la France leguee au 1863 a la BN par Michel Hennin, Paris, 1877.

16

Post Civil War Plan

Pen and brown ink, charcoal marks; 837 x 430 mm; two sheets glued together, watermark on righside sheet, circle inscribed 3 P R, three smaller circles above it.

Inscription: at left, Mezzelune, mezaluna di S.Mauritio, mezaluna di Porta Nuova, mezaluna del Valentino, mezaluna dell'Annunciata, pezza della scuderia, mezaluna del Bastion Verde, mezaluna del Parco, mezaluna di Porta Palazzo, mezaluna munara, mezaluna della Consolata, at right, pezza del recinto, S.Mauritio, S.Carlo, B.Amedeo, Madama Il duca, S.Margherita, Castello, Bastion Verde, S.Ottavio, piataforma di Porta Palazzo, S.Adventore, La Consolata, S.Solutore, piataforma di Porta Susina, Citta Vecchia, Cittadella, Citta Nuova; transfer holes.

Illegible scale.

AST, Sez.Ia., Carte topografiche per A e B, Torino .

The citadel and the three parts of town are separated by walls. The citadel is separated from Citta Nuova and Citta Vecchia by walls built during the civil war. The streets of Citta Nuova are traced over the wall of Citta Vecchia, and the east-west streets are extended to form the grid of the newly enclosed part to the east. The fortification for the east expansion is being studied, and three alternatives are suggested. There is a trapezoidal space in front of the gate near the Po bridge, and an orthogonal space near the east wall of Citta Nuova.

This drawing is significant because it shows the condition of the built parts after the civil war, as well as the expansion proposed immediately after the war. The renewed proposal for expansion to the west begins to raise doubts about the efficacy of the citadel in

defending the west side of the city.

Bibliography: Comoli-Mandracci (1983), fig.41; Forma urbana,
v.I, III, A, doc.17.

17

Plan of "new" Turin

Pen and brown ink and wash; 420 x 600 mm.

Inscription: at upper righ, CXIX.

Mss.T189, f.119r, BA, Milan.

Turin is shown comprised of the citadel, and the unified old and new parts, without a separating wall. The interior plan of the city is carefully drawn, although the north-east corner is entirely missing. Citta Nuova is shown with all its blocks and the Piazza Reale, which is connected to Citta Vecchia through Contrada Nuova. Special emphasis is placed on the walls and the gates, which are shown "laying down".

This drawing is important because it is one of only two which represent Citta Vecchia and Citta Nuova as a whole during the brief period before the construction of the eastern expansion began. Since the walls between the two parts of town were torn down only after the civil war, and since the north-east corner of the city is not illustrated, the drawing was probably made in the later 1640's. The missing ducal palaces may indicate that the rehabilitation of the old compound had begun.

Bibliography: Comoli-Mandracci (1973), fig.2, p.336; Comoli-Mandracci (1983), cat.no.33.

18

Plan of Citta Nuova and Citta Vecchia

Green, grey and red watercolor, brown ink; 664 x 420 mm.

Inscription: La Dora, Il Parco, Po, Il borgo di Torino che va sino al Po, Citta Vecchia, Citta Nuova, Cittadella.

Scale in 140 trabucchi.

Mss.Mil. 177, f.2, BR, Turin.

Piazza Castello is shown with foundry buildings north of the Castello, and there are a significant number of buildings in the Po suburb. The relation between the citadel and the two parts of town suggest a pre-civil war condition, since during the war the citadel was surrounded by additional fortifications. Since the fortifications of Citta Nuova, including the foreworks, are complete, the drawing cannot be earlier than 1637 when they were completed. The drawing was probably made between 1637 and 1640.

Bibliography: Forma urbana, v.I, III, A, doc.7.

19

Partial plan of Turin under siege

Pen and black ink; mm.

Inscriptions: Turino, Porta Castello, Porta Palazzo, Porta Susa,
Porta Nova, Strada del Valentino, Crocetta, Camino di Graigliasco,
Porporata, Camino di Rivoli, Camino di Valentino.

Illegible scale.

Mss.F213 inf.13., BA, Milan.

The citadel is separated from the Citta Nuova and Citta Vecchia by trenches, and additional fortifications are aimed against it.

Siege fortification surrounds the citadel from the country side.

The drawing illustrates the siege of the citadel in 1642, when the party of the regent took refuge in it, and was attacked by the army of the Princes Tommaso and Maurizio.

20

Plan of the siege of Turin

Pen and black ink, grey watercolor; 1150 x 1165 mm; six sheets glued together, watermark on all parts, a circle with compass in it, surmounted by upside down u, three leaves hang from the circle.

Inscription: Siege de Turin.

Estampes, Id.24, f.36, BN, Paris.

The area around Turin is enclosed by two fortification rings roughly concentric with the fortifications of the city. The armies surrounding the city are separated by the country roads. The plan of Citta Vecchia illustrates Piazza Castello, Piazza S.Giovanni, Piazza di Palazzo di Citta, Citta Nuova is shown to have 12 blocks. The road between the Castello and the Po is flanked by buildings, of which two have courts. Fortifications separate the citadel from the city, the Castello is shown in three dimensions, as are its flanking galleries.

The drawing celebrates the battle during the siege of Turin between the French and the Spanish supported Piedmontese factions. It was probably drawn soon after the siege and intended as a historical document.

Bibliography: Forma urbana, v.I, II, C, fig.119, p.884.

21

Plan of the expanded Turin fortifications

Pen and black ink, grey watercolor; 384 x 325 mm.

Inscription: Turin en Piemont, La ville vieille, Porte Suzine,
Porte Palais, Chateau, Porte Castel, faulxbourg du Po, La ville
neufue, Porte Neufue, Citadelle, Doire Suzine.

Scale in 200 ?.

Estampes, Id.24, f.34, BN, Paris.

The area where the trenches and the walls, built during the civil war, were is marked by a dotted line. Graphic emphasis is placed on the fortifications of the city. The gun ports of the citadel are aimed against the city, and carefully delineated. Poor draughtsmanship is shown in the lay-out of the Castello.

This is a post civil war plan, probably made for the French garrison which occupied the citadel until 1657.

Bibliography: Forma urbana, v.I, II, C, fig.118, p.884.

22

Compass plan of Turin

Pen and black ink, red, grey and green watercolor; 667 x 464 mm.

Scale in 150 trabucchi.

Mss.Mil.177, Piante di Fortezze, f.4, BR, Turin.

The south wall of Citta Vecchia is shown in dotted line. There is a proposal for expansion towards the Po, with specific fortification of the bridgehead.

The drawing is a very close copy of the plan by Arduzzi, they were both part of a series of "parere" solicited by the crown in the mid-1650's from a number of military architects and strategists. The dotted line suggests that the wall had been only recently demolished, or that it was about to be demolished. Like the plan with the gun-ports, this is also a rough drawing.

Bibliography: Forma urbana, v.I, III, A, doc.14: Comoli-Mandracci (1983), cat.no.41.

23

Expansion plan proposed by Arduzzi

Pen and black ink, red, grey and green watercolor; 670 x 462 mm.

Inscription: Al Sig.r Marchese di Pianezza, Parere sopra la fortificazione del Borgo di Po:

In tutti li tempi da tutti li quelli ch'intendono l'arte di fortificar sitti furono e sarano di parere che si avanzi verso del fiume Po almeno passato la chiesa di Sant'Antonio nel posto piu rillevato per valersi del vantaggio del sitto fabricato dalla natura giustamente dove bisogna terminar il recinto delli baleardi restando sitto al di fuori per li fossi e pezza distaccata con le lettere P O con la quale e sua strada coperta si puotra sempre rendersi patroni del ponte di Po, che tanto basta senza portarsi alla fiumara conforme al parere che si vede ponteggiatto di molta spesa, guardia el lontano dal regolare in sitto dove si puol produrli una buona, et ben intesa fortificatione come l'assegnata con le lettere ABCDEFG li quali si accomoda al sitto, ne si puol far di piu ne di meno balloardi faccia pur chi si voglia

che troverranno di molti incontri volendo mutar figura et io mi rimetto al miglior giudicio perche sia il meglio del Real Servitio dico e ho fatto il mio parere in disegno et in scritto volesse Dio che prima di circonvallar la citta nuova si fosse ventilato quello che si doveva risolvere intorno di essa fortificatione per la quale si sarebbe risolto altra miglior figura della affettuata alle lettere La figura stropiata senza necessita puotendosi produr di meglio, come l'assegnata con li numeri 123456 la qualle sarebbe piu lode-

vole ma non concorda insieme col le buone regole quali vogliono
che che si faccia esata diligenza acioche con una medesima linea si
chiuda dentro assai terreno senza aumentar guardia il che sia fatto
al contrario attaccando alla citta vecchia dove che fatto il calcolo
del recinto dalle lettere MIJH sara la guardia pari al recinto dalle
lettere HJEDC dove che la guardia rilevante due soli balleardi et due
cortine seguate ABC cose di poca consideratione in riguardo al re-
cinto del Borgo di Po tanto considerabile per l'assicurezza di To-
rino quanto alla spesa si fa salvo che un sol volta et chi havesse
impiegato le muraglie fatte dalle lettere HAL si sarebbe fatto poco
meno che la metta ma questo non giova al presente R una pezza avanti j
del ponte da farsi alle occasione agiustata in maniera che si possa
starli dentro coperto Q due reduitti qui fiancar la pezza R et altri
bisogni alli tempi di attacco e pezze distaccate al de fora con le
quali si domina tutti le parti all'incontro della Piazza per li re-
manento della citta puol supliare fosse perfezionato, Arduzzi.

Scale in 200 trabucchi.

Mss. Mil. 177, Piante di Fortezze, f.1, BR, Turin.

The dotted line north and east of Citta Nuova indicates the walls to be demolished according to Arduzzi's proposal. His version of the expansion towards the Po would require five new bastions. The drawing is very similar to f.4 in the same manuscript.

The proposal is interesting not so much for the design, but for the criticism of the fortifications of Citta Nuova, which according to Arduzzi was built without the benefit of specialists' advice. The dotted lines in the north wall of his proposed expansion enclosure suggest that he was attempting to resolve another scheme which he considered mistaken.

Bibliography: Comoli-Mandracci (1983), fig.24, cat.no.40: Forma urbana, v.I, III, A, doc.13.

24

Expansion plan proposed by Amedeo di Castellamonte

Pen and brown ink, red and green watercolor; 715 x 485 mm.

Inscription: at left, A.Castello Vecchio, B.Palazzo Nuovo di SAR,
C.S.Giovanni il duomo, D.Palazzo Vecchio dietro S.Giovanni, E.Palazzo
della Ser.ma Prencipessa, F.Chiesa della Sta. Trinita, G.Chiesa dello
Spirito Sto., H.Piazza delle erbe, I.Chiesa del Corpus Domini, L.Chi-
esa di S.Sudario o S.Pietro, M.S.Domenico, N.S.Croce, O.Il Senato,
P.Chiesa delli Gesuiti, Q.Casa di Mgr. Nontio, R.Torre della citta,
S.S.Franco, T.Casa del Sig.r Marchese di S.Germano, V.Ospedale di
S.Giovanni, X.Parochia di S.Martiniano, I.Parochia di S.Eusebio,
+Chiesa di S.Teresa, A.S.Carlo, B.Casa di Mgr.Arcivescovo, C.S.Cris-
tina, T.Casa del Sig.r Generale delle Finanze, D.Chiesa della Visita-
zione, M.S.Croce delle monache, Q.S.Dalmazzo, L.Sellaria di piazza,
A.Borgo di Po et ospedale osiaalbergho, B.S.Franco di Paola, C.S.
Antonio, D.Dora che serve di canale, E.Porta vicina al ponte di Po,
O.Cittadella, O.Porta Nuova, F.La Madonna degli Angioli, G.Casa del
Marchese di Terre, L.Casa, X.Casa del Sig.r Ambasciatore di Venetia,
B.Casa del Monsieur B, A.Casa del Sig.r Pres.te Turinetti, B.Casa di
Monsieur Gonteri, Z.Bastion Verde, R.Casa del Sig.r Buscha, C.Casa
del Sig.r Conte Castellamonte, P.Casa del Sig.r Marchesse di Parella,
Q.Casa del Sig.r Marchese Palavicina, R.Casa del Sig.r senator Cip-
randi, T.S.Tommaso, H.Sito per li molini dentro la citta.

Scale in 100 trabucchi.

AST, Sez.Ia., Carte topografiche per A e B, Torino .

A canal separates the Po expansion from the existing city. The Po expansion is envisioned as a half-circle. Piazza Castello is enlarged towards the east. Palazzo Reale (1658) and Palazzo di Citta (1659) are shown realized, but the Sindone chapel, begun in 1657, is not indicated. Dotted lines indicate the eastern wall of Citta Nuova to be demolished.

The plan is probably part of the "parere" which the crown requested in the mid-1650's. It is important because the plan of Piazza Castello was to be closely followed in the implemented expansion plan.

Bibliography: Forma urbana, v.I, III, A, doc.16.

25

Expansion plan proposed by Carlo Morello

Pen and brown ink, red, grey and green watercolor; 720 x 460 mm.

Inscription: 1.S.Gioanni, 2.San Lorenzo, 3.S.aTrinita, 4.Corpus Domini, 5.Spirito Santo, 6.S.Croce, 7.S.Beminito, 8.S.Pietro Gallo, 9.S.Roccho, 10.S.Francesco, 11.S.Martiniano, 12.Le monache del Crocefisso, 13.S.Eusebio, 14.S.Tommaso, 15.S.Maria di Piazza, 16.Il Gesu, 17.S.Croce delle monache, 18.S.Dalmatio, 19.S.Augustino, 20.S.Consolata, 21.S.Chiaara, 22.Le Orfanelle, 23..Simeon e Giuda, 24.S.Mauritio, 25.Congregatione di S.Paolo, 26.S.Carlo, 27.S.Teresa, 28.S.Madonna degli angeli, 29.li padri Tomasetti, 30.S.Cristina monache, 31. L' Annunziata monache, 32.La Visitazione monache, 33.Le Capucine monache, 34.Le Convertite, 35.S.Filippo, 36.S.Francesco di Paola, 37.L' annunziata, 38.S.Antonio, 39. S.Marco, 40.Hospedale di Cavaglieri, 41.Hospedale di S.Gioanni, 42.Hospedale de Pelegrini, 43.Hospedale del Ser.Sudario, 44.Hospedale de' Poveri, 45.Il Castello, 46.Palazzo Reale, 47.Palazzo di SRA a S.Gioanni, 48.Palazzo del Ser.mo Prencipe Mauriti., 49.Palazzo del Ser.mo Prencipe Tommaso, 50. Palazzo del Marchese Pianezza, 51.Palazzo del Marchese di Est, 52.Palazzo del Marchese di S.Germano, 53.Palazzo di S. di Villa, 54.Palazzo del Marchese Pallavicino, 55.Palazzo del Marchese di Caraglio, 56.Palazzo del Marchese di Brotio, 57.Palazzo del conte Filippo d'Aglie, 58.Palazzo del conte di Moretta, 59.Palazzo del conte Tana, 60.Palazzo del conte di Verrua, 61.Palazzo del S.Nontio, 62.Palazzo del S.Ambasciatore di Francia, 63.Palazzo del Arcivescovo, 64.Il Senato et Camera Reale, 65.Piazza Reale vicino a S.Carlo, 66. Piazza

Castello, 67.Piazza del Palazzo Reale, 68.Piazza di S.Gioanni, 69. Piazza del comune, A.Palazzo del S.Gabriel di Savoia, B.S.Michel, 70.Piazza della Cittadella, bastioni della cittadella, 71.Bastione di S.Mauritio, 72.Bastione di S.Lazaro, 73.Bastione del Duca, 74. Bastione Infante, 75.Bastione Prencipe, 76.Bast. attorno la citta nuova con i ingrandimento, Bastione Verde S.Uberto, 77.Bastione del Castello, 78. Bast.e S.Ottavio, 79.S.Gioanni, 80.Bast.e S.Lorenzo, 81.Bast.e S.Secondo, 82.Bast.e S.Solutore, 83.Bast.e S.Maria, 84. Bast.e S.Adventore, 85.Bast.e S.Barbara, 86.Bast.e S.Front, 87. Bast.e S.Carlo, 88.Bast.e Beato Amedeo, 89.Bast.e S.Cristina, 90. Bast.e S.Mauritio, 91.Bast.e Canevina, 92.Bast.e S.Tommaso, 93. Bast.e S.Marco, 94.Bast.e S.Francesco, 95.Bast.e S.Orsola, 96. Bast.e S.Michel, 97.Bast.e S.Filiberto, 98.Porta Palazzo, 99.Porta Susina, 100.Porta Nuova, 101.Porta Castello, 102.Albergo de Virtu, 103.La Madonna del Monte, 104. Parco di SRA, 105.molini.

Scale in 100 trabucchi.

Mss. Mil.178, Carlo Morello, Avvertimenti sopra le Fortezze di S.R.A. 1656, f.16, BR, Turin.

The legend identifies a large number of buildings in Citta Vecchia and Citta Nuova. Citta Nuova seems to have a number of gardens next to houses and convents. The proposal for the eastern expansion includes two triads of streets, one emanating from the enlarged Piazza Castello, the other from the Po gate. There is a proposal for expansion towards the north of Citta Vecchia in a semi-circle, seen in earlier plans. There are two fortification alternatives suggested for the Po expansion, there is one trapezoidal open space suggested for the expansion area. Contrada di Po is shown flanked by a number of buildings.

The drawing is probably part of the "parere" collected in the mid-1650's by the crown. The absence of the 1659 Palazzo di Citta may help to date the drawing. The proposal to enlarge Piazza Castello is similar to that by Amedeo di Castellamonte. The ambivalence of the proposal, oscillating between the Piazza Castello as the most important place and the Porta di Po marr the otherwise interesting design whic considers the design problems discussed in the drawing of 1619, that included studies for the global expansion.

Bibliography: Comoli-Mandracci (1983), fig.26, cat.no.32; Forma urbana, v.I, III, A, doc.24.

26

Hidden plan expansion proposal

Pen and brown ink, pink and red watercolor; 766 x 524 mm; two sheets glued together, each with a watermark, a circle inscribed 3 P R, a smaller circle above it separated from it by two curls; transfer holes.

Inscription: at bottom center, BR, at top right, Hen.¹

Scale illegible.

Estampes, Vb.6, detached sheet, BN, Paris.

Lay-out of the Po expansion covered with a paper flap, streets underneath continue the grid of Citta Nuova and Citta Vecchia streets. There is a proposal for expansion towards the west, with ten blocks laid out. The six bastions of the Po expansion are authoritatively laid out, as is the Contrada di Po.

This drawing is important because it shows the expansion enclosure as realized in 1673-74. The importance of Contrada di Po is made clear. The drawing was probably made as the first effort in discarding the proposals of the 1650's and starting almost from the beginning in the early 1660's after the French had left the city. The attention paid to the western expansion of the city is seen in the urban design proposed for the U-shaped gate square.

Reproduced: Comoli-Mandracci (1983), fig.43.

1. Hennin was assistant to the Viceroy in Italy. See George Duplessis, Inventaire de la collection d'estampes relatives a l'histoire de la France leguee au 1863 a la BN par Michel Hennin, Paris, 1877.

27

The octagonal plan for Piazza Carlina

Pen and brown ink, red and grey watercolor; 610 x 428 mm.

Inscription: at bottom center, BR, at bottom left, Fouq.¹

Estampes, Vb.6, BN, Paris.

The Po expansion is illustrated with a porticoed octagonal design for Piazza Carlina, porticoed Piazza Castello, ducal buildings east of Piazza Castello, fortified western expansion, free-standing Castello, Palazzo Reale is shown as a bastioned fortress. The triad of streets emanates from the Po gate, short streets connect Piazza Carlina to the east-west through-streets.

The finished quality of this drawing suggests that it was intended as a presentation drawing. Since the drawing shows Piazza Carlina as octagonal in plan it must predate 1678, when the form of the piazza was altered by ducal edict to a square, as seen in the study drawing from the BA, Milan. Since the plan shows more streets than were opened it is likely to predate the initiation date of the expansion. Thus, it was probably made between 1673 and 1678.

1. Fouq is the stamp of Fouquet, an amateur collector whose collection passed to the BR in 1819.

28

Study plan of Piazza Carlina

Pen and black ink, charcoal marks; 420 x 595 mm.

Inscription: at bottom left, Garove, Po F, Dora, Cittadella,
A.S.Giovanni, B.S.Michele, C.La Consolata, D.monastero di S.Chiera,
E.Le Orfanelle, F.S.Domenico, G.Corpus Domini, H.La Trinita, I.S.
Lorenzo, L.S.Dalmazzo, M.S.Marco, N.S.Francesco, O.Sta.Croce delle
monache, P.Sta.Maria di Piazza, Q.S.Tommaso, R.S.Martiniano, S.S.
Eusebio, T.S.Teresa, V.Monache di S.Teresa, Z.S.Carlo, AB.La Visita-
zione, AO.Ospedale, S.T.S.Francesco di Paola, MV.S.Antonio, VE.Ospedale
del Ser.mo Sudario, X.Sta.Croce, 1.Palazzo di SAR, 2.Piazza Castello,
3.Retro Piazza Castello, 4.Piazza S.Carlo, 5.Piazza di Citta, 6.Piazza
Carlina, X.Castello Vecchio, 10.nova galleria, 11.terazza che traversa
Piazza Castello, 12.teatro ove si dimostra il Sant.mo Sudario, 13.Pa-
viglione in testa alla galleria, +Accademia.

Scale in 200 trabucchi.

Mss.T189.sup.116. , BA, Milan.

The plan is similar to the presentation drawing for the second expansion. There are fewer streets shown in the expansion area east, the drawing studies the changes made in the plan of Piazza Carlina. The Castello is shown connected to the ducal palace through the galleria, the expansion to the west has been subdivided into rectangular blocks. At the center of the drawing there is a smaller scale plan of Turin from which the illustrated plan was probably derived (using the method of lines radiating from the center of the drawing).

Since the plan of Piazza Carlina was altered by ducal edict in 1678

this drawing is probably close to that date, or may predate the edict by a brief period.

Bibliography: Comoli-Mandracci (1983), fig.65, cat.no.37; Guidoni (1979), fig.408, p.427.

29

Expansion plan proposed by Vauban

Pen and black ink, blue watercolor; 786 x 558 mm; mounted on paper.

Inscription: at bottom rightcenter, Vauban, Le Po fl, la Douire riviere, numbers and letters on the proposed fortifications.

Scale in 200 trabucchi.

AST, Sez. Ia., Carte topografiche per A e B, Torino.

The proposed new fortification is focused on the bastioned trace of the Po expansion, and of the western expansion. The walls of Citta Nuova and Citta Vecchia are shown in their 1660's condition. The Po expansion area is illustrated with existing streets and waterways.

This is the only study for the expansion concerned exclusively with fortification and the strategical aspects of the expansion. Vauban, who had offered his services to the crown in 1670, utilised here his "first system" which consisted of bastions with "ears", ravelin and foreworks in front of the curtain wall, and covered street outside the moat.

Bibliography: Comoli-Mandracci (1983), fig.42, cat.no.35; Forma urbana, v.I, III, A, doc.18.

30

Schenografia della citta e cittadella di Turino

Pen and black ink, blue watercolor; 415 x 250 mm.

Inscription: Schenografia della citta e della cittadella di Turino,

Po F., Dora F.

Estampes, Vb.6f., BN, Paris.

This view of Turin shows the city with the fortifications expanded to the Po, and west of Citta Vecchia. There is a large piazza d'armi between the citadel and the city. There is a small suburb at the Po bridgehead. Representation of the buildings is schematic, but the center of town is clearly illustrated. The fortifications of the south wall and of the citadel are very clear.

The city is completely isolated from the surrounding country side, the hills at north-east are not even represented. Since the third expansion area is only fortified, but not yet inhabited, this drawing dates probably before the battle of 1706, for which the western wall was fortified.

APPENDIX II: THE DOCUMENTS

Doc. 1.

Lettere Patenti, June 16, 1606

Desiderando noi per abbellimento di questa citta che quelli che hanno case sopra la piazza del castello se le rendano piu utili et comode a beneficio loro et d'habitanti cie quelle che sono dal cantone del Busca nostro medico ordinario sino alla gran porta del Prevostado di Polenzo secondo che a ciascuno spettera facciano portighi tirando la facciata di case a retta linea, conform al disegno che dall'ingegnere nostro Ascanio Vittozzi gli sara dato la qual cosa non potendosi fare senza aiuto nostro in ampliargli il sito; nel quale volendo concorrere accio ogn'uno sia invitato a farlo con piu commodita, a questo fine per le presenti di nostra certa scienza ...permettiamo...a quelli che hanno case sopra detta piazza ...di avanzarsi verso la piazza sudetta del Castello secondo le facciate delle sue case et avanti essi sopra la strada per lo spatio di due trabucchi e mezzo et a quelli dallo stesso cantone sino alla sudetta porta di Polenzo per quanto importara la retta linea dal cantone di Busca preniminato a detta porta, conforme al dissegno...obligandosi pero essi patroni delle sudette case di compire le fazzate, e le fabbriche d'essi portighi,..fra un anno e mezzo...li quali portici et archi saranno liberi e publicchi... Et in caso che alcuni d'essi non potessero o non volessero farlo, vogliamo che per non interrompere una tanta opera siano tenuti a farne dichiarazione avanti detto ingegnere fra quindici girni dopo che le presenti li saranno intimate...saranno tenuti di vender esse case a chi vorra comprarle al valor presente, senza far fondamento ne haver consideratione all' ampliatione del sito...

Doc. 2.

Lettere Patenti, March 26, 1612.

Volendo noi che il lasciar tuttavia nel stato nel qual oggidì si ritrovano li portici et la galleria aperta sopra, che al tempo de' matrimonii delle due infanti maggiori nostre amatissime figliole fecimo fare alla conferenza di questa piazza detta del Castello, apportarebbe eccessivo danno et pregiudicio alle case che loro sono dietro et contigue, levandogli et la vista et la luce ancora, vi abbiamo presso per espediente ragionevole l'infrascritta donatione nostra della quale ci persuidiamo che li patroni delle medeme case ne rimarranno sodisfatti, il castello et piazza stessa con piu ornamento la citta abellita et ampliata d'honorate stanze, et a noi finalment con singular contento; onde per la presenti di nostra certa scienza....doniamo...a tutti li possidenti le suddette case presenti e futuri la parte di essa galleria per quanto s'estende e sta avanti di caduna si esse case a dirittura verso la piazza, con carico pero ad essi possidenti et patroni di far fabricar essa parte ogn'uno si et come li tocca per la detta dirittura, cioe sopra le portici due stanze, o siano piani l'uno sopra l'altro e sotto terra ancora con le finestre, poggioli et ornamenti che saranno designati et ordinati dall'ingegnere nostro capitano Ascanio Vitozzi, conform al quali et non altrimenti havranno da reggersi tutti proprietarii....

Doc. 3.

CARLO EMANUEL

PER GRAZIA DI DIO DUCA DI SAVOIA, PRINCIPE DI PIEMONTE ECC.

Vedendo noi pur relevar ad egregie somme di danari le spese che annualmente facciamo nelle fabbriche tanto per habitationi proprie, che de' prencipi miei amatissimi figliuoli nella presente città, et nelle ville, et campagne di suo contorno, loro fortificationi, reparazioni, et pertinenze alla recreatione, che generalmente in altri simili fabbriche o in navilij, condutte d'acque, et etiandio in astellaggi, et monitioni per l'artiglieria per i stati nostri di quà da monti; e che continuando a commetterle come habbiamo fatto da qui indietro, a diuersi e particolarj ministri, o ufficiali, per occupationi o per interesse, o poca isperienza loro, o tolleranze, o renitenze nel ministerio delle materie, esse fabbriche, e prouisioni non solo, non riescano o si fanno conforme agli ordini, e disegni dati, ma di più si rendono dispendiose con non poco interesse nostro, oltre alla dilatione che ne patisce il servitio; per il che dovendo noi per buona economia rimediarui, et non giudicandoui miglior modo, che di ridurre le suddette fabbriche, esercitij, indifferentemente sotto l'autorità, et distributiva d'ordini d'un solo capo formato de' soggetti intendenti in simili imprese, e menaggi, et il quale mediante ancora, si regolino particolarmente le fabbriche delle case, e strade della detta città per renderle alla più bellezza, ornamento, et comodità d'essa, et degli habitanti, che sia possibile, come metropoli et residenza nostra, et de' nostri magistrati: a quest'effetto con le presenti di nostra certa scienza, autorità suprema, e moto proprio, annullando prima, e riuocando noi tutte le delegazioni, soprintendenze, et autorità concesse, e conferte ad altri magistrati, delegati, ministri, et ufficiali particolari sopra simili fabbriche et seruitii, da qui indietro erigiamo, e formiamo un magistrato, che d'hor avanti si nominerà delle nostre fabbriche, e sederà in una delle stanze del nostro palazzo, o di quello del prencipe ogni settimana, et i giorni che egli eleggerà per la necessità del servitio, nel quale interuerranno per titolati del consiglio, et corpo d'esso li conti di Sant-Front general nostro dell'arteglieria, et conte Valdengo consiglieri di stato, li mastri auditori Nicolis, dottor Lodi, et Precipia, gli ingegneri Carlo di Castellamonte, et Carlo Vanelli, l'auditore Gabetti, controlor della nostra casa Isoardi, ingegniero capitano de' Marchi, et controlor delle nostre fabbriche Vugliengo; et per secretario del medesimo consiglio, o magistrato uno degli secretarij nostri ordinarij, che vi nominaremo a parte, così eleggendolo, col carico di tener registro di tutte le ordinanze di esso, sessione per sessione, oltre a quello de' mandati infrascritto, comandando però noi il Cina già secretario delle fabbriche nel suo ufficio, il quale d'or avanti s'estenderà però solo ai recapiti delle scritture da farsi sotto li particolari soprintendenti, et a quelli di più che gli saranno commesse dal medesimo secretario del consiglio concernenti lo stesso servitio, et non altro. Per douer il detto magistrato (come gliene doniamo l'autorità, et facoltà) far fare d'hor avanti tutti li mandati al thesoriere delle suddette fabbriche, et imprese per li pagamenti delli prezzi degl'effetti, materie, condutte loro, caui, vacationi delle maestranze, et operanti, e simili spese dependenti da esse fabbriche et seruitij, li quali saranno sottoscritti almeno da due delli consiglieri, oltre all'assignato per soprintendente alla particolare fabrica, dalla quale ne procederà il mandato rispettivamente, da uno anche degli ingegneri predetti, e dal controlore delle dette fabbriche, contrassegnati indi dal secretario del consiglio,

et sigillati col sigillo nostro, che per quest' effetto faremo fare: et de' quali mandati li detti secretarij del consiglio, et controlore saranno tenuti di tenerne particolar registro, e separatamente per havervi ricorso negli occorrenti. Il che tutto mediante, detti pagamenti saranno fatti buoni al detto tesoriere ne' suoi conti della camera nostra d' essi, senz' altro.

Più il detto tesoriere nel caso di pronto sborso de' danari per servitio delle fabbriche, et imprese predette, sarà tenuto a farlo prontamente, e liberamente sopra l' ordine solo in scritto del particolare soprintendente alla fabrica, o impresa rispettivamente; con che però ne rapporti poi il mandato autentico, come sopra a primo consiglio che seguirà.

Più sarà tenuto detto tesoriere di dare prontamente al consiglio, et al controlore ogni volta che gli verranno da essi domandati, tutti li calculi, et spese dipendenti dal suo ufficio, massime concernenti assegnationi, et danari, che gli saranno stati sborsati, affinchè si sappia come sta il fondo della cassa, e si faccia, che il danaro non si diuertisca, ma s' impieghi doue, e come sarà da noi ordinato pur per i medemi seruitii.

Più i soprintendenti generali ouunque si troveranno saranno tenuti di otto, in otto giorni essendo lontani dalla città auuisar con lettere il consiglio, essendo vicini trasferirsi quà per riferirglielo a bocca, lo stato delle fabbriche loro commesse rispettivamente, gli ordini, et disordini, che vi possono occorrere, acciochè esso consiglio vi proueda, et tutti gli ingegneri, et soprintendenti restino ben informati dello stato delle fabbriche et imprese generalmente, et con questa notizia ognuno di loro possi poi separatamente darne tanto conto quanto ne darebbe in persona il particolare soprintendente deputato a caduna fabrica, bisognando.

Più si stabiliranno nel consiglio tutti li prezzi de' matoni, calcine, pietre, boscamani, et altri simili materie, et si delibereranno anco all' incanto auanti esso tutte le fabbriche, nauili, caui, fatture, condotte, et altri simili imprese dipendenti da fabbriche, et artiglieria; et quanto alla politica delle fabbriche, delle case et strade di questa città, ne doniamo la soprintendenza al medemo magistrato, con l' autorità di farle ridurre al regolamento, et disegno, che da noi gli sarà dato; eleggendo et deputando finalmente noi per i punti di ragione, che occorreranno decidersi dipendenti dalle suddette fabbriche et imprese generalmente, et particolarmente da differenze per queste delle case et strade di Torino, il magnifico consiglier; et senatore ordinario nel Senato nostro di quà da monti M. Giovanni Giacomo Raschiero in giudice di tali cause, e differenze, per vederle et terminarle però col magistrato, come gli doniamo l' autorità di fare, sommariamente, et senza formalità di processo; dalle decisioni del quale non vogliamo, che si possi appellare, che da noi, e che essi abbiano pronta esecuzione, come se fossero del detto nostro Senato.

Al quale, et alla predetta camera nostra de conti di quà da monti, si, et come a caduno d' essi spetterà particolarmente, mandiamo e comandiamo d' osservare, et far osservare intieramente et inuolabilmente la presente erettione di magistrato, et di non ingerirsi in modo alcuno d' or auanti nella cognitione, et giudicio delle cose, et effetti dipendenti, et assignati ad esso come sopra sotto pena di nullità di quanto seguirà in contrario, et altra a noi arbitraria; et alla medema camera de' conti in ispecie ordiniamo di passar, e far buoni et entrare nei conti del suddetto tesoriere tutti li pagamenti, che sopra gli ordini, o mandati del detto magistrato, o consiglio delle fabbriche nella predetta formalità fatti, e non altrimenti, che egli verrà a fare senza alcuna difficoltà, qualunque ordini, decreti, stabilimenti, stili, delegationi, et altra cosa repugnante, non ostante, et massime l' editto nostro delli 22 di gennaio 1619 (1). A che

tutto d'autorità nostra predetta deroghiamo; et generalmente a tutti i nostri ministri, ufficiali, vassalli, sindaci, huomini, et comunità de' luoghi nostri mediati, o immediati, et altri a quali queste perueranno, comandiamo che d'or avanti stimino, et reconoschino il suddetto magistrato delle nostre fabbriche, et imprese predette, et ubbidischino alli suoi ordini, in quanto concernino esse fabbriche, imprese, e dependenti, come alli nostri stessi senz'alcuna difficoltà, per quanto ognuno stima cara la gratia nostra. Chè così porta il servitio nostro et vogliamo.

Dat. in Torino li diece di marzo mille seicento vintiuno.

C. EMANUEL.

V. Argentero.

Crotti.

LA CAMERA DUCALE

Veduto l'avanti scritto ordine di S. A. Serenissima delli diece di marzo prossimo passato, et sentiti li signori auvocati patrimoniali in loro conclusioni; habbiamo ordinato quello sia registrato, et osseruato secondo sua forma, e tenore, conciochè il tesoriere delle fabbriche resti contabile in questo magistrato camerale. Et in quanto per esso ordine non si contraria alla sua instruzione, sia obligato ad osservarla, et che solamente habbino pronta esecuzione le sentenze quali saranno proferte dal corpo del magistrato d'esse fabbriche, con assistenza del signor senatore Raschiero, e per fede.

Torino li trenta luglio mille seicento vintiuno.

Per detta illustrissima Camera.

Chiaus

IL SENATO DUCALE

Visto il dietroscritto ordine di S. A. S. delli diece di marzo prossimo passato, di sua mano firmato, e debitamente signato, sigillato, et sottoscritto, et sentito nelle sue conclusioni il magnifico auvocato fiscale general Rouasenda, a cui è stato comunicato, che per quello che a noi spetta hauemo approuato et interinato, et per le presenti approuiamo et interiniamo; dichiarando però la cognitione delle cause del magistrato de qual in detto ordine, douersi intender in quanto concerneranno l'abbellimento della città, forma, struttura, et accrescimento delle fabbriche, et perfettione di esse, e non in quanto concerneranno altre ragioni tra priuato, et priuato, come di dominio, fideicommisso, legato, donatione, hipotheca, et altre concernenti materia fuori della sopra dichiarata, per quali però non si ritardi il corso, progresso, et perfettione di dette fabbriche, et che s'intendino anche riservate le cause criminali, mandando sia come sopra detto ordine osseruato, et con questo nelli registri nostri registrato, acciò all'auenire, bisognando, se gli possi haver ricorso.

Dat in Torino li sedeci di settembre mille seicento vintiuno.

Per il suddetto eccellentissimo Senato.

Rolandono

Doc. 4.

Editto, August 12, 1621 .

Havendo dopo finite le ultime guerre dato principio all'aggrandimento della Citta di Torino, la quale era senza dubbio tropo angusta rispetto al gran concorso delle persone che tratte della residenza della nostra corte e de' Magistrati della Giustizia e da'altre cagioni di ufficij e de engotij vi vengono giornalmente ad abitare. E vedendo ora il notabile progresso de guest'opera per gli molti edifij che nel circuito della nuova fortificatione si ritrovano alzati, et altri gia cominciati olrte quelli che da molti principali di questo Stato e da'alcune religioni si devono con magnificenza principiare. Abbiamo stimato non solo conveniente ma necessario di favorir e riscaldar quest'impresa col arricchirla e dotarla di particolari gratie e privilegi; accioche con questo invito si dia tanto maggior perfettione a questo nostro disegno e che la detta citta antica Metropoli del Piemonte e sede ordinaria delli Serenissimi Duchi di Savoia cime per la bellezza e opportunita di sito e tanto riguardevole, cosi anco resti di conveniente ampiezza per la commodita di tanti concorrenti, e per honorevolezza ancora in questa nobilissima provincia d'Italia. Havuto dunque il parere del nostro Consiglio....con le presenti di nostra scienza... concediamo gl'infrascritti privilegi et esentioni a quelli che verranno a fabricare nel termine delle nuove mura, e fortificationi gia da noi fatte disegnare e principiare tanto verso la Porta nuova, quanto verso il Po....

...E perche la piazza del mercato de' grani che fin qui si e tenuta vicino alla chiesa di San Tomaso della presente citta resta assai incomoda alli negotianti per la sua stretezza, percio et par dar maggior animo d'accelerare le fabriche detro li termini sudetti per l'utile che se ne dovra sperare in transmutar ivi il mercato sudetto nella piazza della contrada di San Carlo, onde comandiamo a tutti li venditori da grano soliti tener botteghe, o magazenii.. transferire le loro vittovaglie nelle boteghe o stanze della contrada di San Carlo... sotto pena...

...Piu dichiariamo che chi vorra fabricare nella detta nuova Citta debba regular la fabrica secondo il disegno di detto Castellamonte senza quale non potranno fabricare...

Doc. 5.

Ordinati

L'anno 1619 alli sei di marzo nella sala solita congregarsi il consiglio...

Per sternir Torino

Perche il C Carlo Castellamonte d'ordine di S.A.R. ha detto la citta per ceder ?
 quantita di sternitura acciaio si sternischino tutte le contrade della citta o si
 accomodino ... sono rotte e guaste. Hano ordinato si dia ordine al soprastante
 delle fabbriche ... Dentis di perceder ? della quantita necessaria di sternitori
 per d'esso e si cominci l'opera facendo pagar l'opera e fatica a par..che
 havrano le case per mesa ? ove si sternisce.

Per esportar la terra levata dal alvio dilla Dora di piazza castello

Pur che il Auditor Paulo Gerolamo lodo d'ordine di S.A. ha accusato si faci
 asportar le imonditie e dell'condotto e alvio della Dora grossa in
 piazza castello esistente. Hano ordinato al Dentis di far espotar dette
 cusature ? ... che questo alla terra esistent in la ripa esser messa da parte
 quali la devono far esportare a loro spese.

Doc. 6.

L'anno mille sei cento diece nove alli sette di Aprile nel palazzo dell' Ill.ma citta di Torino solita sala congregarsi il Consiglio di essa citta...

Trattato di pagar Ducatoni 2000 per la porta nova

Detti Signori Sindici propponeno che Venere passato furono da S.A. chiamati da quella qual con volto sereno le disse questa ~~nostra~~ nostra Citta in ogni occasione di nostro servizio sempre e statta pronta a conpiacersi et vi assicuriamo non declinera mai massime ~~in~~ in occasione cosi degna della venuta della ser.ma madama sposa del ser.mo Prencipe per qual dovendosi far la porta nova desiderava che la citta facesse la spesa et quanto prima etse non poteva di marmore almeno di pietra negra et se non poteva di pietra negra almeno di mattoni etche in cio non dovesse metter difficulta. A qual di Signori Sindidi humilmente hanno risposto che la citta non declineva mai dalla divotione et ubidienza di comandi di S.A. e solo le rinresceva non poter corrisponder con le debole sue forze al vivo desiderio di compiacer a S.A. et mas ime in detta occasione sendo gravatissima di debiti tra li altri di ducatonu dieci millia per l'augmento del scudo d'oro del sole per il sale non ancor pagati al detta S.A. ha risposto essendo informato per relatione dell'Auditor Nicolis et altri detta citta haver havuto maggior utile di detta somma da detta gabella mostrando sdegno non se gli sia acordatxa la sudetta dimanda et replicando detti Signori Sindici con ogni reverenza che S.A. era mal informata et la citta non haver util salvo quello giustamente gli spettava et esser tanto gravata che per soccorrer S.A. lascia di pagar molte opere pie soggiogendo S.A. esser anco necessario la citta faci li archi triunfanti per detta venuta di madama Ser.ma poiche la spesa non ecedeva ducatonu due millia

Hanno ordinato poiche S.A. compatendo alla citta si compiaceva che essa citta per detta porta nova e sua fabrica paghi detti ducatonu due millia si faci saper a S.A. che volontieri gli pagava dandogli pero qualche commodita di ritrovarli

Commettendo alli Signori Sindici et maestro di ragione ? di far saper questo a S.A.

Doc. 7.

L'anno del Signore 1619 et li 13 di luglio congregati nella sala solita...
 Aviso della strada nova S.A. vol far fare dalla sua Galleria alla piazza di
 Torino

Detti Signori Sindici proponeno aver inteso per relazione del Signor Paulo
 Dominico Lodi ? soprastante alle fabbriche di S.A. che essa ha fatto far
 disegnà di far fare una strada nova per drittura dalla galleria del Castello
 verso la piazza et palazzo della questa Citta et voler che tutti li padroni
 dahavrano case nel luoco del disegno che le debbano far rovinar per far
 detta strada nova et redifficar con le facciate come le sara ordinato et
 havendo la citta alcune case e botteghe quali restano nel sito dove ha da
 esser detta strada quali converra demolir et indi redifficar la qual demoli-
 tione portara diminutione di reddito a detta citta piu di ducatonì tricento
 annui oltre la spesa della redifficatione et quando la mente de S.A. sia tale
 non volendosi mai lacitta contradire esser necessario almeno far saper a S.A.
 detto danno et li altri carrighi eccessivi che la citta supporta tutto per
 servizio di S.A.

Hanno ordinato alli Signori Sindici et maestro di ragione di andar da S.A.
 intender la pia mente sua et quando sia di suo piacere che per detta strada
 nova la citta debba far demolir dette case Supplicarla sia restaurata
 di tanti danni et precedente l'estima gli siano almeno in parte fatti buoni
 o scontratti

Doc. 8.

ASC Torino, Ordinati 1620.

Per la piazza a porta nova e ravellino

Piu che anco S.A. vole la citta faci accomodar alla porta nova della citta vecchia un revellino piu si spiani e faci un gran piazza ivi di larghezza di 50 trabucchi et caso il sito commune ivi non basti si debba comprar tanto del terreno de vicini et in detta piazza si faci il mercato del vino volendo che ladetta porta nova della citta vecchia stia aperta et per la citta vole si metta una gabella sopra il vino si vendera ivi che la concedera.

Doc. 9.

Ordinati

Entrata di Madama Ser.ma Cristina di Francia, Prencipessa di Piemonte

Sia manifesto ad ogn'uno come Il Ser.mo. Vittorio Amedeo - Prencipe di Piemonte figliuolo del Ser.mo. et Invittissimo Carlo Emanuel Duca di Savoia essendosi congiunto in matrimonio con la Ser.ma Cristina figliola secondo genita del fu di glo. mem. Henrico quarto xpmo Re di Francia et di Navarra et sorella del moderno xpiano Re Ludovico decimo terzo il giusto et essendosi detto Ser.mo Duca Carlo Em. padre partito da Torino uscito a Porta Susina accompagnato da moltitudine de Cavag.ri et da tutte le compagnie di sua guardia si da piedi che cavallo con tutta la corte tutti vestiti di pomposissime et superbissime livre di veluto nero solio fornito di ricami bianchi e neri et li cavalli di arnesi pomposissimi e di gran valore oltre due livre di viaggio fatte a tutta la corte cioe paggi, staffieri e guardie sino alli corrieri, barcaroli, sonadori, tromboni et tutti li servienti per inviarsi alla volta di Savoia ove doveva ricever detti Ser.mi Prencipi e Prencipessa sposi suoi figlisolo e nora nel luoro arrivo di Francia ove Il Ser.mo Prencipe era gionto alle nove febraio mille seicento diece nove et Il Ser.mo Prencipe Mauritio Card.le suo fratello qual molti mesi inanti era in Francia alla corte col fu Ill.mo Sigr. Filliberto Ghirardo Scaglia Conte di Verrua per suo avo l'havea sposata li undici di Genaro di d.o anno 1619 et li diece di d.o Febraro Dominica di Carnivale l'Ill.mo e R.mo Sigr. Arcivescovo di Parigi benedetto detti Ser.mi Prencipi sposi et lanotte seguente consumato il matrimonio et gionta S.A. in Savoia con tutta la corte et guardie ando incontrar detti Ser.mi sposi nell'estreme parti della Savoia quali vennero in compagnia de Ser.mi Prencipi Cardinale sudetto et Tomaso di Savàia et altri grandi di Francia sino a Chiamberi ove entrati con sontuosissima pompa et grandi aparati fatti da d.a citta da qual doppo alcuni giorni partiti con detta Ser.ma Prencipessa per venir in Piemonte gionsero li quatro di novembre di d.o anno 1619 al monc nis et ivi anco giense d.o giorno Il Ser.mo Prencipe Filliberto di Savoia venuto di Spagna ove furono fatte feste e trionfi navali sopra il lago et tornei, li diece venero a Susa li tredici a Rivoli li vinti sei di d.o novembre a Moncalieri il primo di Dicembre a Chieri et ivi firmatici sino li vinti tre di detto Dicembre di d.o anno che venne incognita in Carozza con S.A. e Ser.mi Prencipi senza smontar in Torino

Entrata di Madama Ser.ma Cristina

li quattordici Genaro del mille sei cento vinti venne con S.A. socero in maschera sopra una lesa a Piazza Castello acompagnata da tutti li Prencipi et di novo usciti senza fermarsi entrarono per la Porta del Soccorso di fuori in Castello e poi ritornarono a Moncalieri et Miraflores et havendo S.A. sin del mille seicento dieci nove fatto dar principio alla Citta nova et fatto far a spese di detta Citta una porta nova verso mezo giorno et Bastion di Santa Margarita nominata Porta di San Carlo nella muraglia vechia della Citta con un ponte et per drittura altra porta per qual si deve entrar in detta Citta nova tutta di pietre di marmore anco a costo della Citta per qual deve la Ser.ma Prencipessa far solenne entrata ornata delle statue de Santi protettori della Citta et santi et dell'armi di Savoia e Francia et inscrittioni et altri orna.ti nella forma che si vede con esservi fatto un arco trionfante poco discosto da d.a porta della Citta nova con molte statue et altri pomposi ornamenti et inscrittioni et dal d.o arco sino alla porta di detta Citta nova da ambi li latti della strada messe molte statue significanti et rapresentanti li statti, pprovincie et principali citta del dominio di S.A. con fig.li vestiti da nimpha quali nel passar di luoro Altezze recitarono diverse lodi et versi ad honor e gloria del detto felicissimo matrimonio et dalla porta nova sino alla porta di San Carlo altre statue et poco discosto dal ponte di d.a porta messevi l'effigie di Beroldo gigante da quale dicesa la Ser.ma Casa di Savoia et l'Invitissimo Em. Filliberto di glo. mem. ambi a cavallo in forma di giganti et entran.ro nella citta si entrava nella Contrada nova fabricata uniforme et le finestre delle case di d.a strada nova tutte erano ornate di richi tapeti et occupate da gentilhuomini e gentildonne e giongendo alla piazza castello fatta di novo quadro circondata da fabriche anco uniformi et di molte statue diverse e in fondo di detta piazza una Gallaria con pillastrini dorati ornata anco di statue et poco piu abasso il palazzo di S.A. vechio ristaurato con la facciata tutta fatta a nichie et ogni nichia una statua di marmore et dalli canti della porta del detto palazzo otto statue d' Imperatori et sopra la porta le armi di Savoia e Francia et nella summita della muraglia sopra d.a porta dipinti di rilievo In effigie detti Ser.mi xx Prencipi sposi et dette effigie dorate sostenendo Il Ser.mo Prencipe Madama Ser.ma sotto il braccio et alla porta del castello inanti quattro statue due di Carlo Quinto Imperatore et Emanuel Filliberto di Savoia et altri due Imperatori et sopra la porta altre di marmore ritrovate oltre montagne et altri archi trionfanti

Entrata di Madama Ser.ma Cristina

in quali erano diverse statue inscrittioni canti suoni come pur anco erano alla montagna fatta in punta della strada nova et apreso la porta di San Carlo al di dentro della citta qual come sopra a spese sue ha fatto far ambe d.e porte et ponte et il resto S.A. l'ha fatto far lei et oltre cio d.a citta fece far a sue spese un baldachino di Brocato d'oro et argento rizzo sopra rizzo in quatro e cinq fiori richissimo di frangie et allamari di sei bastoni per recevergli sotto luoro Altezze Ser.me elligendo et deputando l'Ill.ri Sig.ri Giofrancesco Capris colonello di militia per S.A. de Sg.ri di Altessano Superiore et Corneglia Francesco Scaravello de Sig.ri di detto Altessano Petrino Longo et Andrea Crova (?) giureconsulti de Consiglieri di detta Citta et caso li Sig.ri della Rovere et Ruffia quali hanno li doi primi bastoni come cioe detti Sig.ri Rovere delle quatro prime casate della Citta et detti Sig.ri Ruffia tenenti il luogo d'una d'esse donato al fu Ecc.mo Sig.Cesare Ruffia primo Presidente nell'Ecc.mo Senato senso le altre estinte non compaiono haveano sin all'hora nominato li Sig.ri Giulio Cesar Nazero et Gio Batta Cacia giureconsulti tutti de Consiglieri di detta Citta a luogo d'essi Sig.ri della Rovere et Ruffia forono anco vestiti dodaci giovani scholari della citta di raso aspolino di color d'amaranto con le manighe et grippone di tele d'argento per presentarli a madama Ser.ma per paggi forono vestiti ancora di robbe di veluto solio nero con le lostre di satino nero longhe sino alli delli piedi con li capuci sopra humerali di brocado di collar d'amaranto fodrati del medemo colore li Sig.ri Don Tomaso Bergera Consiglier di statto et refferendario di S.A. cavaglier et gnal Auditore della sacra religione de Santi Mauritio et Lazaro et Agostino Sindici Cesare Nomis presidente patrimoniale Marc'Antonio Bergera consigliere di Statto et reff.mi di S.A. de Sig.ri Beinasco et Cavalerlione Gioani Nicolismastro auditor di camera di S.A. et Petrino Ripis anco giureconsulto a luogo dal Sig.r Auditor Antonio ... nominato qual fu poi ammalato tutti de consiglieri della citta da quella elletti per andar incontrar luoro Altezze alla detta entrata in compagnia delli Sig.ri Amedeo Capone Vicario et Lorenzo Guerillo giudice della citta et tutti a cavallo con valdrappe di veluto solio negro con sei staffieri vestiti di livrea havendo l'uscier inanti m.Gio Antonio Ponghetta vestito di razza negra con labachetta della citta per andar incontrar luoro Altezze fuori della porta della citta nova ove erano tutte le militie di Piemonte circa vinti cinq milla fanti compartiti et comandati dall'Ill.mo et Ecc.mo Si.re Conte Guido Aldobrandino San Georgio Cavaglier

Entrata di Madama Ser.ma Cristina

del Sacro ordine della Nontiatà di S.A. Ser.ma et general di tutte l'infanterie di S.A. di qua e di la da monti et tutta la cavalleria in numero circa di tre milla cavalli tutti a squadroni con molti cavaglieri del sudetto ordine et tutti li feudatari ~~XXXXXX~~ de statti di S.A. ben all'equipaggio con luoro livre ben pompose et concorso di milliaia d'huomini del statto per veder detta entrata in modo che li quindici di marzo giorno di Domenica dell'anno mille sei cento vinti tra le vinti tre et vinti quatro hore approssimandosi luoro Altezze alla detta porta della Citta nova et precedendo tutte le compagnie di cav^lleria poi li colleggi de Sig.ri Dottori in leggi et medici ogn'uno conforme a luoro ordine poi la citta e magistrati tutti a cavallo indi li paggi et tutta la corte seguitando luoro Altezze contro la retroguardia di cavalleria pronti alla porta di San Carlo della citta vecchia et fuori et apreso di essa ove era vestitè in pontificato Monsig.r Ill.mo er Reverend.mo Filliberto Milliet Arcivescovo di Torino discesesero da cavallo e bacirono la croce in mani desso Monsig.r Reverend.mo dal qual ascoltorono con molta attentione l'oratione che a luoro fece apreso qual l'illmo. Sig.r Gaspar Purpurato cavaglier Gran Croce et Governator della citta in compagnia di detti Sig.r Sindici quali smontati da cavallo ivi per questo si fermorono presento le chiavi della citta alla Ser.ma Madama alla qual furono similmente per avanti presentati li suditti dodeci paggi vestiti come sopra con luoro spade dorate dal Sig.r conte Antonio Goveano delli consiglieri di detta citta da quella a cio eletto per assister alla servitu di Madama Ser.ma qual montando a cavallo et Il Ser.mo Prencipe forono ambi raccolti sotto d.o baldachino et cosi raccolti essa Ser.ma Madama in compag.a del Ser.mo Prencipe suo consorte fece sua felice entrata per d.a porta e sttada nove et il baldachino fu portato per detti Sig.ri Capris il bastone ditto ultimo il sinistro ultimo per il Sig.r Scaravello et li altri bastoni per li altri quatro sopra eletti et nominati della detta citta non senso comparsi li Sig.ri della Rovere quali sono delle quatro casate et lignaggi soliti portar il pulio et il primo bastone dritto et ultimo meno li Sig.ri di Ruffia discendenti dal fu Ecc.mo Sig.r Cesare Cambiano Consig.re di Ruffia primo presidente dell'ecc.mo Senato sedente in Tarino qual soleva portar il sinistro ultimo bastone qual era della casa di Beccuto delli detti lignaggi e dato al fu Sig.r Presidente come vacante per ~~è~~ esser estinta d.a casata di Beccuti et cosi fu proceduto in far detta entrata per detta strada nova sino al duomo ove si ritrovo

Entrata di Madama Ser.ma Cristina

pari.o detto Monsig.r Ill.mo Milliet Arcivescovo da qual et dal reverendo capitolo a quello assistente furono luoro Altezze Ser.me ricevute nel d.o Duomo ove tolsero il perdone et uscendo da esso si ritirarono nel Palazzo essendo fatto sera

Doc. 10.

Ordinati

Benedittione et prima pietra fatta et messa alla citta nova

L'anno del Sig.r mille sei cento vinti la terza indittione alli sette del mese di decembre havendo il Ser.mo Carlo Emanuel per gra. di Dio Duca di Savoia nostro Sig.re sin dall'anno mille sei cento diece nove fatto dar principio et designato il sito nel qual si ha da fabricar la citta nova fuori et apresso la pnte e citta vechia verso mezo giorno et levante nel qual sito gia molti particolari hanno fatto fabriche et tuttavia se ne vano cominciando et fabricando sendo gia fatta la porta di essa per qual dell'anno pnte la Ser.ma Madama Cristina sorella del christianissimo Re Ludovico decimoterzo di Francia et Prencipessa di Piemonte ha fatto entrata nel felice suo arrivo di Francia a questa citta e volendo S.A.R. che detta nova citta si vadi fabricando e renderla popolata mostrando di questo gran desiderio habbi gia fatto far il cavo per dar princepio alli bastioni et muraglie di d.a citta et havendo sempre dette Altezze cominciate le tre imprese et attioni in nome di sua divina maesta acio col suo agiuto sia citta prospera felice et sempre difesa et protteggiata dal Sig.re et dalli santi protettori di questa citta doppo haver risolto si dia principio alla muraglia di essa citta et bastioni per insigniarla del nome del Sig.re et con le benedittioni di Santa Chiesa habbi questa mattina a bon hora fatto chiamar li Ill.ri Sig.ri Lorenzo Guerillo et Gio Maria Cinzanotto ... sindici di detta citta et conti di Grugliasco quali subito andati in castello et alla solita stanza di d.a S.A.inanti a quella humilmente presentati offrendosi pront.mi a suoi comandi insieme detta citta a quali S.A. con facie allegra et segno di amore ha detto le formali parole Io vorrei ghe la citta honorasse questa mia attione qual intendo di far oggi et venisse in corpo come osserva nelle processioni troversi ad accompagnar et assister alla Benedittione della citta nova et veder metter la prima pietra per fundamenta della muraglia di d.a citta nova havendo anco per questo fatto avisar tutti li mag.rati acio sugli trovino alche detti Sig.ri humilmente si sono offerti pronti di obedire et con humil.ma riverenza partitici hanno fatto chiamar la congregatione et tutti li Sig.ri Conseglieri che si sono ritrovati nella citta cioe li M.Ill.ri Sig.ri Giofrancesco Capris vicario et giudice GioBatta Cacia giudice di d.a citta Marc'Antonio Bergera di Sig.ri di Cavalierlione e di Beinasco consiglier di Stato et reff.rio di S.A. Giulio Cesare Nazero(?) m.ro di ragione francesco di Mantoa et nanti detta processione et clero precedevano sei gentilhuomini con una bandera per caduno ove erano depinti

Beneditione et prima pietra fatta et messa alla citta nova

S. Maurizio, San Carlo, Beato Amedeo San Tomaso Santa Cristina et
Catherina quali bandera S.A. ha comandato si mettano sopra li luoghi
ove si devono fabricar li bastioni et doppo ritornati alla citta ogn'
uno a suo loggiamento havendo S.A. comandato al Sig.re Gio Nicolis
Aud.r di Camera de Consiglieri di d.a citta di dover assister e veder
murar dette pietre sicure acio alcuno non rubasse detti dinari ivi
messi per memoria propria come ha fatto

Doc. 11.

ORDINATI

L'anno mille seicento vinti uno et li quindici del mese di Genaro in Torino nel Pallazzo et sala solita tenersi il Consiglio ordinario di detta citta.....

A quali detto Sig. Sindaco propone che sono mesi cheli capitani Giacomo Vanello et Nicola Ramello capipicapietre impresari della fattura intagliatura et ornamenti delle pietre necessarie per la facciata et fattura della porta della citta nova armi inscriptioni nelle tavole messe sopra essa et altri ornamenti come a quella si vedono ogni giorno... fanno istanza per il pagamento d'esse opere avendo gia avuto ducatonu tre milla ducentoe piu da fiorini sedici e grossi sei l'unopretendendo il compimento sin'a ducatonu tre milla trecento come per lista da essi data di dette fatture et escusando la citta non dover pagar cosi egregia somma senza pteceda -

estimo di detta opera et d'essi impresari rep.do haverla fatta d'ordine di S.A. con d.a citta di pagarla et esser la piu bella opera Italia pretender da S.A. la debba lei giudicare et la citta pagar quello S.A. giudicara replicasse la citta non poter negar ogni giudizio e parer di S.A. qual pero non negara alla citta di farla riconoscer et estimar da persone esperte per saper quello ragionevolmente si deve per essa pagare e pendenti questi discorsi e pretensioni la citta habbi concertato col Ill.re Sig. Castellamonte ingignero di S.A. per haver suo parer sopra le d.e pretensioni esso Sig. habbi laudato alla citta di conferir questo negotio con Giacomo Fontana capo picapietre molto esperto et pratico di simili fabriche e mandarlo alla predara ove si sono cavate dette pietre per visitar il luogo et giudicar

la facilita e dificolta in cavarle secondo la qualita del luogo e poi farli secretamente anco visitar detta porta misurar le pietre altezza e grandezza d'esse eben considerar l'opera con tutte le circostanze Il che havendo eseguito habbi detto Fontana con participatione e voto d'altri suoi compagni esperti in simili imprese et opere dato suo parere in scritto alla citta e che per dette opere la citta possi pagarli ducatonì quatro milla trecento novanta cinque fiorini diecisette l'uno qual somma giudica sia dovuta per dette opere Il che havendo anco doppo conferto con detto Sig. ingegnere Castellamonte esso habbi confirmato il parer del detto Fontana giudicando esser dovuta detta somma a detti Vanello e Ramello il che fatto la detta citta habbi fatto chiamar nella congregatione et presente palazzo Vanello e Ramello et senza scoprirli quanto sopra li abbi propposta diversi partiti per acordar detta somma per d.a opera allegando molte ragioni per farlo condscender a quella manco somma possibile poiche in questa fabrica detti capitani non vi hanno messo che le nude luoro opere et mercede di operari quali di gran longa non giangono a d.a somma proponendo l'estremita de tempi poverta del paese et facilita con qual ha fatto detta impresa havendo havute tutte le pietre portate apresso d.a porta senza luoro costo ma delle communita circonvicine d'ordine di S.A. et havendo anco essi fatti altri guadagni si ha longamente trattati di questo persistendo detti capitani nella luoro dimanda di ducatonì sei milla trecento et doppo cinque milla sette cento doppo cinque milla quatro cento et havendo rimostrato con ragioni aparenti detta dimanda esser essorbitante et che la citta intendeva far venir esperti da Venetia e Roma per far l'estimo sudetto credendo haver pagato forse piu di quello sara detta opera estimata manco come la citta pretende sara vergogna habbino

chiamato somma cosi eccessiva et habbino voluto inganar la citta o haver poca cognitione dell'opera et finalmente detti capitani si sono risolti finirla per non perdervi piu tempo et si sono contentati per ogni cosa possino pretender per d.a opera di ducatononi quatro milla trecento sessanta di fiorini sedici e mezo l'uno et un mantello di panno di Francia per caduno da quali dicherrano li gia ricevuti qual partito detti Sig.ri sentito fatti uscir detti capitani dalla sala ove dett sig.ri erano congregati et conferto fra loro vedendo detto partito esser utile alla citta e piu vantagioso del parer di detti Ill.re sig.r Castellamonte ingegnere et mro. Giacomo Fontana et che aspettar altro giudizio la citta si meteva in oresa e pericolo di pagar forse maggior somma hanno deliberato si acetti il detto ultimo partito di detti Vanello et Tamello et se gli paghino detti ducatononi quatro milla trecento sessanta di fiorini sedici e mezo et un mantello per caduno dedotto tutto cio havrano havuto a d.o conto et richiamati detti Vanello et Ramello et dettoli che la citta accetta il sudetto partito et gli pagava detti ducatononi quatro mila trecento sessanta et mantelli li pagamenti fattili se ne sono contentati come per la scrittura manuale fatta a parte mandando percio al Tes.e della citta con assistenza del sig.r mro. di rag.e et farli suoi conti et pagamento di detti ducatononi quatro milla trecento sessanta et comprati li mantelli come sopra mentre prima detti Ramello et Vanello osservino quello hanno promesso per la capitulatione con la d.a citta qual somma seli paga per l'intagliatura et ornamento delle dette pietre armi et inscriptioni solamente quali sono state messe in opera et fabrica di d.a porta da mro Andrea Goano di Mondovi con qual sono altri parti per la fabrica di d.a porta et metter dette pietre in opera

et mediante quittance di detti Vanello et Ramello di ducaton
quattro mila trecento sessanta et pretio di mantelli sarano fatti
buoni al d.o Tes.re nei suoi conti mandando alli Sig.ri mro.
di rag.e di passarglili senza difficolta

Tenor di fatta conli capitani Vanello et Ramello

Havendo S.A. ordinato et comandato che si face una porta nova fuori della citta verso mezzogiorno ove detta sua S.A. intende agrandir la citta et habbi comandato che la citta faci la spesa di d.a porta et paghi la fattura di essa si dalle pietre di marmore che ogn'altra cosa et havendo Giacomo Vanello et capitano Nicolo Ramello fatto cavar et intagliar le pietre di d.a porta parte della predera di Chianoc et parte di S.Martino cioe l'epitassi (?) senza stabilir alcun prezzo et volendo hora li Sig.ri sindici et mro. di ragione a nome della citta stabilir il prezzo di d.i marmori e pietre et fattura di d.a porta per quanto importa l'opera di detto picapietre havendo detti Sig.ri Sindici conforme al parer del Sigr. Castellamonte ingegnere di S.A. sopra intendente di d.a porta commesso l'estimo d'essa ad un mro. picapietre per haver lume del valor di essa

Hanno stabilito et acordato il prezzo di tutta detta porta con detti Vanello e Ramello a ducatonu quatro milla trecento sessanta a fiorini sedici e mezo con che pero la debbonocomper di ponto in ponto conforme al disegno di detto Sig.r Conte Carlo Castellamonte et rimudar (?) le pietre ove si devono metter li epitaffi della citta il che promettono di far compir, confessano haver gia ricevuto da d.a citta per d.a porta ducatonu tre milla ducento sessanta a fiorini sedici grossi sei il restan.e detti Sig.ri Sindici promettono far sborsar a detti Ramello e Vanello prontamente de dinari di d.a citta che sono ducatonu mille cento simili circa

In fede delche sono tutti sottoscritti Torino li 15 di genaro mille seicento venti uno.....

Tenor di lista

Primo capitolo il daddo d'abasso ducatonì	1000-
le collone basse e capitello ducatonì	1000-
le bugne con l'arco grande ducatonì	1000-
l'architravo frigi et cornice ducatonì	1300-
il finimento di sopra ducatonì	1000-
li marmori delli capitalli con l'armi et	
le doi epitaffi piccoli	<u>1000-</u>
Nicola Ramello	6300-

Tenor d'altra lista

Richiesti noi sottosignati della magnifica città di Torino a visitar la fabbrica et estimar la detta fabbrica overo porta nova della città di Torino

Primo capitolo cioè il cocholo et li 4 pedestali delle collone con li suoi ornamenti da uno pedestalalo et l'altro rileva a duca.ni a fiorini diecesette per caduno	760-
Piu le quatro collone il base et capitelli il tutto finito rileva ducatonì simili	600-
Piu le bugne dal cornizone in giu incluso quelli dell'arco et il tutto alasso(?) ducatonì	740-
Piu le cornice overo cornizone incluso l'architravo frigeo et cornice rileva ducatonì	1000-
Piu il di sopra del detto cornizone pedestali delle due armi et ornamento dell'epitaffo il tutto finito rileva a ducatonì	715-
Piu le armi n.3 et li tre epitaffi di marmore di S.Martino rileva ducatonì	<u>580-</u>
Giacomo Fontana richiesto dalle parti et mro. Damiano Pizzo richiesto dalli sudetti Sig.ri	4395-

Doc. 12.

Ordinati

L'anno mille seicento vinti uno et alli undeci di settembre in Torino nel palazzo et sala solita tenersi il consiglio ordinario di d.a citta...
 Per raccorrer contro li privileggi concessi alla Citta nova
 Il Sig.re Sindaco proppone essrsi publicato li privileggi da S.A. concessi alli habitanti e fabricanti case nella Citta nova fra li altri chesi possinoivi far macelli piu che da san Michele prossime passato in poi si debba ivi et sopra la piazza di SanCarlo far il mercato del grano con inhibitione di piu comprar ne vender grano in questa citta vecchia sopra il luoro mercato sotto pena della perdita desse vitralie(?) et di scudi cento d'oro et per esser questa cntra il publico servizio della citta et habitanti per la distanza et incommodita delli habitanti in Torino et maggior spesa del porto ex non haver stanze ivi li mercanti di habitar e tener luoro grani sicuri et quando alli macelli soverchio poiche la citta ha nell'accensamento de macelli provisto che le accensatore(?) debba ivi tener un tagliante et carni a sufficienza et esser necessario provederli
 Hanno ordinato si raccorra da S.A. et di pg.la per rimedio contra detto ordine massime attese le doglieanze di mercato de grani

Doc. 13.

L'anno mille sei cento vinti uno et alli vinti cinq di settembre in Torino nel pallazzo et sala solita tenersi il consiglio....

Ordine di raccorsi per il mercato S.A. fa tramutar alla citta nova Piu il Sig.re vicario Capris proppone che S.A. gli ha detto che havra gusto si tramuti il mercato del riso levandolo dal cantone del pelo(?) grosso ove al presente e et tramutarlo ove prima ers il mercato del grano a San Tomaso

Ha ordinato di raccorsi da S.A. acio restino fermi li mercati della citta vechia alli giorni stabiliti cio marte et sabbato o almeno si stabilischi il marte per la citta nova et il sabbato per la vechi atteso che citta vechia ha privilegio di detti doi giorni et per tramutar il peso si deliberarar con maggior considera.ne e tempo Per abbassar l'argine dell'alveo di piazza castello

Piu che per billiet del ~~xxx~~ magistrato delle fabriche vien comandato di far abbassar l'argine dell'alveo di piazza castello acio l'acqua della piazza scorri in d.o alveo

Hanno ordinato si raccorri da alcuno de Sig.ri del d.o mag.rato e farli saper che questo non e obligo della citta per le cause che le potranno dire e procurarne la liberatione o in ogni caso chiamar tempo compettion... per poterlo fare.

Doc. 14.

Ordinati, 1622, ASC Torino

Per nuova religione de Padri di S.Francesco Scalci qual si vuol fondar nella Citta nuova et quelli di Binavas (?)

Piu che S.A. s'e lasciata intender voler metter una religione de Padri di San Francesco scalci nella citta nuova et che altri gia giunti e mesi si giattano voler habitar a Binavas et cosi si giungerano due tasche de mendicanti nella citta acio si deliberi che si debba fare.

Ha commesso alli Sig.ri sindici di tratterne con S.A. et intender il suo bon volere.

Doc. 15.

ASC Torino, Ordinati 1623.

Per l'acqua del martinetto qual si deve compartir alla Citta Nova

Havendo il sig.r Sindaco Ranotto propposto che hieri il sig.r
Presidente Ottavio Raffino le disse che S.A. ha accordate alla
Citta Nova di potervi condur l'acqua della bealera del Martinetto
bisogno si potra divider per meta o compartirsi a giorni certi
et che la citta deliberi quello dovra fare
Dechiarando anco che per far vi sia aqua a sufficienza per esse
citta vechia e nova che si potra introdur nell'alveo di d.a
citta altra quantita d'acqua della Dora piu che vi sono molti
particolari quali si usurpano dell'acqua di d.a bealera qual do-
vrebbe venir nella citta esrve luoro prati qual si levar per
darla a d.a citta nova dovendosi preferir il publico servizio
al privato.

Doc. 16.

ASC Torino, Ordinati

Conseglio

L'anno del millesei cento trentacinque et alli venti nove di
Settembre convocato et cong.to il Gnal Conseglio

...Piu che il Conte Castellamonte ha fatto molti favori alla
citta e mai e stato riconosciuto e pero ... di farlo per la
qualita della persona et utilita che ne riceva la citta vista
percio che si deliberi

Il Conseglio ordina lli s.ri sindici qn.ti et altri che saranno
elleti et d. r.ne di rag.e di riconoscer d.to Conte come le
parra esped.te.

Doc. 17.

Lettere Principi Savoia
serie I Duchi e Sovrani
m.53 - AST sez Ima.

Sig.re Fratello

Doppo esserci trattato molti giorni il negotio del Vuliet, et resolo capace che non ci poteva fare altrimenti che disponer come ci e fatto del off.o de Comiss.rio gnale delle Tappe, si e risoluto ad accettare un off.o di M. di Camera col nome in bianco accio riusendo qualche suo disegno com'egli vi fara sapere ne possi disponer in persona sufficiente adgiungendoli di piu una' pensione di 200 havuto risguardo che lo stipendio d'Auditore e molto inferiore a quello di Com.rio sud.o, hora con questo essendoci reso tacito conviene fare spedire di tutto pronto le spedi.oni del Presid.e Costa et che ordiniatt.e alla Camera di intirinarle senz'altra dila.one accio essequisca puntualmente il partito fatto a nome di Lazaro Costa sopra il quale avendosi assignato al Misserati 12m scudi d'oro d.Itt.e. Ordonarete parim.e che sino pagati prontam.te mediante la rimissione dell'obligo del Lumagha per gli 63 diamanti ottimi accio se ne possi valore senza difficulta.

Doppo molte consid.ni fatte sopra il dissegno delle fortiffi-
ca.oni di questa Citta habbiamo stabilito quello che si deve fare et gia ci simeso mano all'opera la quale si va continuando. Ma perche , come sapete, tutti lilavoratori della campagna in questi duoi mesi si occupano a talliar et battere gli grani non puoten-
dolo defferire in altra stagione come ci si fa in Savoia, per guadagnar questo tempo habbiamo pensato di far venire da 500 buoni huomini dal Faussigni li quali a quest'hora saranno disoccu-
pati, ne darette prontamen.te gl'ordine necessarij facciendoql' assicurare c'havranno oltre pane et vino la paga ogni giorno in danarj et che spirati gli due mesi della servitu che farano sene rittornerano senz'altra dilla.one, bisognera farli partire pron-
ttamente sotto cappi fidati che ne habbino bona cura, et ne sino responsabili, alli quali si dara paga a proportione. Aspetarimo avviso del tempo che partirano non convenendo indugiarlo che il mancho che sara possibile, et con questo preghiamo il Sig.re che lungamente vi conservi. Torino li 30 di giugno 1632.

V.ro buon fratello, V Amedeo

Doc. 18.

Lettere Principi Savoia
serie I - Duchi e Sovrani
m.53 - AST Sez.Ima.

Sig.re Fratello,

Delli 150 huomini che partirono di Savoia per venir travagliare alli ripari di Citta Nuova ne sono comparsi da 30 in circa gl' altri fugevano er tornarono a casa. Hora li sud.ti 30 facendo istanza per il ritorno havendo finito l'opera che gli fu comessa, habbiamo differto di concederlo per tanto che venghino cento delli fugiti, che l'auditore di questa va alevare et condurli qua dove e necess.o di havere ordinariamente questo numero che si mutera ogni due mesi et haveranno ogni giorno pane, vino et due fiorini, come hanno quelli che lavorano. Se li fugitivi non ver-rano si faranno capturare et si fara l'ellectione d'altri cento che si manderanno quanto p.a sotto la cura del sud.o. Questo importa tanto all'avanzamento di questa fabrica che bisogna in ogni modo vi facevate usare una strord.a diligenza et che mi avvisate del tempo che parteranno da costi. N.S. vi conceda ogni felicita mag.re. Da Torino li 17 di settembre 1632. V.ro buon fratello, V Amedeo

Doc. 19.

Lettere Principi Savoia
serie I - Duchi e Sovrani
m.54; AST, sez. Ima.

Sig.re fratello,

Mandiamo da voi il misuratore et agrimensore per misurare la fabbrica et reparat.ne fatte in quest'anno al Castello di Mont.mo al concertato et insieme di compagnia sua mandiamo un capo fornasaro da mattoni per che cola sopra il loro visto ch'avra la terra per far essi mattoni con lui si agiusti il partito si come si giudicara al piu a vantaggio n.ro et per instruttione qui giunto vi mand.o la capitulat.ne agiustata qui in Piemonte con questi Mastri che ci provedono i mattoni per la fabbrica della Citta nuova per regularsi delle condit.ni et prezzo; et per fine preghiamo il Sig.re che vi conservi. Di Torino li 16 di Gennaro 1633. Alli quali misuratore et m.ro habbiamo fatto dar duc.ni 52 per luoro viaggio che vi servira d'avviso.

V.ro buon fratello, V Amedeo

Doc. 20

ASC Torino, Carte sciolte, n.3817.

Il Duca di Savoia

Mag.ci nri. car.mi Gli ufficiali delle nre fabriche ci hanno rappresentato l'abbufo che puo correr non tanto a danno nro, che del publico nelle misure ed stimi delle fabriche che si fanno da misuratori et istimatori nelle misure et stimi delle fabriche, che si fanno da misuratori et istimatori da noi diputati, perche sendo essi dello stato di Lugano, e muratori ponno verisimilm.te avvantaggiare con qualche intelligenza l'opere de'capi nri ch'sono de medesimi paesi et arti, e desiderando noi di porsi rimedio, vi diciamo di far nuova elezione d'altri che siano fuori d'ogni eccetione partecipando co' sude.i ufficiali, nel che crediamo non sara da voi posta difficulta, poiche si tratta del commune beneficio. Iddio vi conservi. Di Torino a 4 di Giugno 1633. V Amedeo. Goltio.

Doc. 21.

AS Torino, Sez.Ia.

Lettere particolari, Golzio, G m.36.

Altezza Reale

La settimana hor passata la fortif.ne non ha havuto ch'gli
operari sotto notati:

In citta nuova	cazoli 8	garzoni	15
Al bast.e del castello	4		9
Al bast.e S.Ottavio	4		7
Al bast.e S.Solutore	3		6
	<u>19</u>		<u>37</u>

S'e condotto fra tutti essi porti rub. 2199 di calcina di Castiglione
e matoni 7700 _____

La cagione di cosi pochi cazoli e stato il mancamento della con-
dotta de mattoni perche una delle fornaci no'ha potuto raffordar
in tempo di dar mattoni a continuar la secondo il bisogno

S'e pero apparecchiato per dimani a condurne un 20m. almeno, come
assicura il Ripis.

Il Gerona non ha che 40 huomini.

5 April 1637, Golzio.

Doc. 22.

Ordinati

Ordine che l'A.S.R. vole s'osservi nel mettere la prima pietra della nova fortificatione et ingrandimento della citta di Torino li 23
8bre 1673 -

Primo levata che sara SAR andera con tutta la corte alla Messa, che sara celebrata da Monsig.r Arcivescovo nella Cappella del Sant.mo Sudario; detta Messa non sara cantata solemne ma i musici sul' organo canteranno diversi Motteti sin che la mesa sia finita, e qui si suplichera S.D.M. accio havendo gia concesso alla Real Casa di Savoia la gloria di custodire la Sant.ma Sindone, che e il vero propognacolo e l'antemurale de suoi stati, cosi si degni d'agradire l' offerta con ivi humil.te se li consacra questo novo ingrandimento sotto gl'auspicij del suo pretiosissimo Sangue -

Secondo le guardie del corpo si troveranno nella chiesa di S.Giovanni conforme al solito

Terzo s'aprira la capella del San Sudario dalla parte interiore verso il palazzo, come e in stile di farsi il giorno della festa di detta S.Sindone, poi che S.A.R. vole passare per quella parte et incaminarsi al luogo della fontione uscendo per la porta del Palazzo Reale

Quarto s'inviteranno a questa fontione Monsig.r Montio et il T. Ambasciator di Francia

Quinto s'inviteranno i Sig.ri della Citta quali interneranno in corpo alla fontione in piu numero possibile

Sesto le truppe di SAR che si trovano di pnte in Torino si metteranno in ala della porta del palazzo Reale sino al luogo ove si gettera la prima pietra

Settimo le luoro AA.RR. usciranno da Palazzo con tutta la corte di parada a piedi con le guardie de Svizzeri e Archibuggieri, tamburo batente, e seguiranno Monsig.r Arcivescovo che prendera tutto il Clero

Ottavo al luogo destinato vi sara un altare portabile ove si fara la cerimonia della benedittione, e si mettera la pietra benedetta con l'inscritt.e e Medaglie che SAR a questo fine ha fatto preparare

Nono Monsig.r Arcivescovo benedirà nell'istesso tempo anche il luogo de sei baluardi novi, imponendo a medesimi i seguenti nomi:

- 1o. San Maurizio
- 2o. San Carlo
- 3o. San Antonio
- 4o. San Gio. Battista.
- 5o. San. Adelaide
- 6o. San Vittore

Decimo il T. Marchese di S. Germano Governatore di Torino sarà quello che avrà la cura di far portar la lastra di metallo, nella quale sarà intagliata l'iscrizione con le medaglie d'oro e quella di argento che si devono chiuder nella prima pietra

Ondecimo Il T. Commend.r Balbiano Intend.te gnale delle fortificationi de stati di S.A.R. sarà assistente alle fontione con tutti gli altri ufficiali subalterni alla sua carica

Duodecimo Il T. Conte Amedeo di Castellamonte come direttore di questa fortificatione sarà quello che dovrà far metter la prima pietra nel luogo ove S.A.R. commanderà, e la fontione del mettere la med.a pietra si farà nel modo seguente

Decimoterzo Il T. Marchese di San Germano giunto che sarà al luogo destinato rimetterà la lastra di metallo con le medaglie d'oro et argento in proprie mani di S.A.R. qual le ricaverà, e poi di sua mano le consegnerà al T. Commend.re Balbiano, et il T. Commend.re le darà al T. Conte Castellamonte per accomodare nella pietra

Decimo quarto la pietra sarà prima presentata a S.A.R. dal Commendator Balbiano e S.A.R. la rimetterà al T. Conte Amedeo scio le faccia metter con la lastra e medaglie già dette a suo luogo da muratori a ciò deputati

Decimoquinto nel gettarsi la pietra si farà una Salva Reale, col sparo di cinquanta volate di canone, e duecento mortaletti, e tutta la fanteria farà sua salve di moschettate, e nell'istesso tempo s'udiranno le trombe sul alto del Bastione verde o dove S.A.R. commanderà

Decimo sesto saranno assistenti a questa fontione S.A.R., Il R. il Ser.mo Principe di Piemonte, Mad.a la Principessa, il Ser.mo Principe, e altri della Casa Reale

Decimo settimo Saranno parimente assistenti tutti li SS.ri del Sangue, e Cavag.ri dell'Ord.e, e tutti Cvag.ri della corte

Decimoottavo terminata la fontione le luoro AA.RR. e Ser.mi Prencipi monteranno nelle luoro carrozze seguite da tutta la corte, e faranno ritorno a Palazzo

Decimonono li SS.ri della citta di Torino faranno rogar un atto pubblico di tutta questa fontione con l'ordine e il modo essatam.e distinto in essa osservato per custodirlo nell'archivio ord.e al che ho disteso e ricevuto il seg.e sotto ered.ne

Beneditione, e depositione della prima pietra nella fondatione et ampliatione della citta di Torino l'anno 1673

Havendo l'Alt.a Reale di Carlo Emanuele secondo Duca di Savoia, Prencipe di Piemonte Re di Cipro per instinto della sua Real Magnificenza deliberato di ritornar l'Augusta citta di Torino a quel antico splendore, per qual da Romani Cesari merito qual gran nome, et principal.te volendol. rassicurare verso il Po per dominare con la difesa del Ponte quel reggio fiume che dalle mura antiche a poco a poco era fugito, conforme all'Ingarndimento che nella sua reggia mente et nel disegno haveva stabilito; resto servita la dett. Reale Altezza di honorare il corpo de SS.mi Reggittori della citta in persona degli Ill.mi SS.ri Sindaci facendoli chiamare et ordinando luoro d'intervenire in corpo et assistere alla solenne ripositione della prima pietra. Per il che in ossequio de Reali Commandi alla mattina delli ventitre di ottobre si congregarono i ss.ri del consiglio nel palazzo della rix citta, essendovi intervenuti gli Ill.mi S.re Barteo Canera Conte di Solasco, Consig.re e Vicario di SAR e giudice delle prime apellationi della d.a citta e suo mandamento, Sig.re GIO. Antonio Ceveris Conte di Burolo giudice della med.a citta, SS.ri Aud.ri Fran.co Ranotto e Nicolo Mariano sindici, Ranucio Pauli, Sind.co Nicolis conte di Robilant, Claudio Fran.co Guerillo conte dell' Avuglione, Auditor Pietro Fran.co Frichignono dottor d'ambe leggi avvocato della citta, Biaggio Sola de SS.ri di Piobesi conte di Miandolo, Pietro Giacomo Perona de Causidici Collegiati nell'ecc.mo Senato Procura d.lla citta, Carlo Martini lo sotto. A ostino di n.a. de Causidici Collegiati nell'ecc.mo Senato secretario della citta, Claudio Bernardino Colomba emolun.re dell'ecc.ma Camera de conti di S.A.R., et Bartolomeo Corte tutti SS.ri consig.ri della detta citta, e conti di Grugliasco i quali

tutti insieme si trasferirono nel castello, et indi nella cappella della Santa Sindone quivi aspettando i comandi di S.M.R.

Venute adung. le R.R. Altezza con tutta la corte nella Santa Capella della Sindone per celebrare la messa da Monsig.r Ill.mo Arcivescovo Michel Beggiani, ma senza solennità col solo accom.to di musica a motetti dall'organo della chiesa nel qual tempo le guardie del corpo stettero nella stessa chiesa, con le armi luoro conf.e allo stile delle capelle curiali; dopo la messa la S.M.R. con devote preghiere supplico S.D.M. che si come ha conceduta alla Real Casa la gloria di custodire il tesoro della Sant.ma Sindone divino propugnacolo et antimurale delli suoi statti, così volesse gradire l'obblat.e del novo ingrandimento della metropoli sotto gl'auspicij del suo pretiosissimo sangue per sicurezza della città, de popoli, et della Sindone istessa, indi per la porta che dalla Santa Capella risponde alla loggia superiore del Palazzo Reale, scesero le R.R.AA. con tutto il seguito alla porta grande del d.o palazzo dñ dove si dovevano incaminare a piedi fino al luogo destinato alla ripositione della pietra fudri della Porta del Castello, nell'angolo della nova fortificatione verso la Dora e della porta del soccorso. Intervenero della Real Casa a questa solemmissima fontione con Sar, MRle et il Ser.mo Principe di Piemonte il quale superando con generosa pietà la tenerezza dell'età segui sempre a piedi li paterni vestiggi per si lungo tratto, com'ancora Mad.a Ser.ma la Principessa, e tutti gl'altri Ser.mi Principi della Real Casa et Sig.ri del Sangue furono insieme invitati Mons.rIll.mo Nontio, e l'ecc.mo Sig.r Ambasciatore di Francia non trovandosi in Torino all'hora altri ambasciatori. Non intervenero pero i magistrati perche essendo il tempo delle ferie la mag.r parte di luoro trovandosi fuori della città, ma numerosa e splendida era la Pompa di tutta la corte in parata co. gl'ecc.mi Cavag.ri dell'Ordine Sacro, e tutti gl'altri Cavag.ri e Dame della corte le quali se tuirano M.R.le et Mad.a Ser.ma la Principessa, dopo le quali immed.te camminavano a due a due li ss.ri della città, prima il vicario e giud.e di poi li ss.ri sindici con le mizzette di veluto celeste bordate al'armelini indi li altri ss.ri canonici suddetti con li all'antimit del clero non intervennero se non i ss.ri canonici del capitolo del duomo con Monsig.r Arcivescovo i quali processional.te salmeggiando andavano inanti con la croce. Tutte le truppe d'infanterie che si trovavano nella città

si posero in ala della porta del palazzo reale fino al luogo della depositione della pietra, ma le guardie delli svizzeri et archibuggeri caminavano con tamburi battenti alternativam.te in buon ordine conf.e al consueto di qua e di la dell' Al. Reali e della corte, et de ss.ri della citta.

Era nel luogo destinato alla sacra cerimonia preparato sotto una grande tenda un altare portabile, guernito d'argenti e ricchi parati sopra il quale era posta la prima pietra nella quale si leggeva scolpita l' inscritt.e, et una tavola di metallo che doveva coprir la pietra in cui si leggeva un'altra inscrizione, ambe esprimenti li pietosi et magnanimi sentimenti che mossero SAR a quella grande opera, v'erano ancora le due grandi medaglie d'oro e d'argento che dovevano esser ammesse nella pietra, et coperte della tavola di metallo vedendodi in quella d'oro vivam.te impressa l'effigie di SAR et in quella d'argento un simbolo heroico significante l'alto suo pensiero in quello ingrandimento, quali inscrit.ni sono le seguenti

Primarij lapidus inscriptio et aduersum
 Numisma aureum cum reggis celsitudinis effigie
 Carolus Emanuel II Alobrogum Dux, Cypro Rex
 Ipsum Ditionis cor, ad sui cordis exemplum
 Non solum munit sed ampliat
 Nam qui sua securus possidet
 Hostilia securius invadet
 Et amplior quo pressior
 Infectos infestabit
 Die XXIII octobris Anno MDCLXXIII

Alla medaglia d'argento che haveva il simbolo impresso d'un baluardo con torre in mezzo sopra la quale s'ergeva un stendardo con l'arma della Real Casa, e il motto arcet et auget v'era la seg.te inscrit.e

Alia Lapidus Inscriptio
 Met illo incisa et
 Auersi numismatis symbolum
 Augusta Taurinorum
 Triumphali cesaris augusti magnificentia
 Maximis Italie urbibus aequatam
 Tum diro Gothorum seculo leoe dirutam
 Semperque angustiore specie renatam
 Ad pristinum augusti nominis amplitudine restituere
 Carolus Emanuel Primus voluit
 Victor Amedeus magna et parte potuit
 Carolus Emanuel Secundus
 Aconi avi cooptatus et maximis generis inceptum
 Non degeneri animo expleturus
 Aspirantibus deipare virginis auspicij
 Augur lem hunc lapidam incit
 Die 23 Obriis anno a virgineo partu MDCLXXIII

Giunte dunque le RR.AA. davanti a detto Altare fece Monsi.r Arcivescovo la solenne beneditt.ne della pietra, della tavola, e delle medaglie Indi rivolto verso la compagnia dove erano i segni della nova fortificat.e mandando i prieghi dove il pie non giungeva benedisse il suolo dove si dovevano alzare li sei baluardi del novo recinto il primo de quali era dedicato a San Maurizio, il secondo a S.Carlo, il terzo a S.Antonio, il quarto a S.Gi6. Batta, il quinto a S.Adelaide il sesto a San Vittore. finita la bened.e l'ecc.mo T.Marchese di S. Germano Don Ottaviano San Martino d'Agliè Cavag.r dell'ord.e sacro come governatore della citta presento la tavola di mettalo con le medaglie a S.A.R.le la quale havendola ricevuta nelle proprie mani la consegno all'Ill.mo T.Balbiano Commend.e Hierosolomitano com' Intendente gnale delle fortificationi degli stati di SAR, et esso la rimesse all'Ill.mo T. Conte Amedeo San Martino di Castellamonte che come direttore di q questa fortificat.e hebbe l'incumbenza di far riporre nel luogo destinato la pietra augurale con le medaglie in essa inscrite, et chiuse dalla detta tavola di mettalo come si e detto per prospero auspicio e memoria eterna. Il che da soleciti operarij fu subito diligentem.e Nel gittarsi della pietra con le musiche novi che havevano accompagnata la sacra cerimonia Risuono subito un lieto fragor delle trombe indi una salva di moschette di tutta l'infanteria, acui successe il tuono di ducento mortaletti, et lo sparamento di tutte le bombarde ch'erano alla mura della x citta che desto ne cittadini ... novi d'allegrezze et applausi. Terminata la cerimonia le RR.AA. e le Ser.me Altezze salite ne luoro carrozze col seguito di tutta la corte fra le acclamazioni del popolo ritornarono a Palazzo

Rimanendo assistenti al luogo dove fu deposta la pietra due ss.ri Ill.mi Aud.ri Camerali Horatio Gina e Pietro Marelli finche fu fabricato tanto di muro che coprisse la pietra, seguendo il primo vestigio delle fondam.a della nova fortificat.e

Doc. 23.

AST, Sez. Riunite

Fabbriche e Fortificazioni, art. 201, registro 1673-1674

Sr. Gio Matteo Belli economo deputato da S.A.R. nella Tesoria gnale pagara ... alli capi mri Pietro Laurenti, Giacomo Mosso, e compagni impresari della fortificat,ne ord.a all'ingrandimento di questa citta livre sei milla d'arg.to ap. 20 l'una a conto di cavi de fossi et per anticipata che segl'accorda in ordine al qui gionto contratto o sij sottomissione passata avanti noi sotto li venti due del cadente mese decembre che ritenendo col p.nte copia auttentica di detto contratto e quittance d'uno de sudetti capi mri impresari le saranno esse L.6000 fatte buone ne suoi conti senza difficulta nesuna, Torino li 29 decembre 1673 -

sottos.to Batta Truchi, Gio Andrea Ferrari, Horatio Gina segue l'atto del contratto o sij sottomissione

Ad ogn'uno sia manifesto che per contratto avanti noi seguito tra il Patrim.le di S.A.R. et li capi mri Pietro Laurenti, Giacomo Mosso, Carlo Sinale, Michel Mossino, Fran.co Bariffo et Giacomo Bovero compagni impresari dell'aggrandimento della fortificatione di questa citta essi impresari fra altre luoro obligat^oni habbino quella di far li cavi et esportar la terra da farsi come disporre l'instruttione del sr. Conte e primo ingegnere Castellamonte in detto contratto tenorizzato cominciando dal Bastion Verde sino a Sant Antonio per tutto il mese d'aprilw prossime, et da S.Antonio sino al bastione della madona delli Angeli fra detto tempo. nell'anno mille seicento settanta cinque et meglio come detto contratto rogato a me cons.re et seg.ro sottos.to in data delli ondecì ottobre prossime passato si legge, sia anche vero c'havendo S.A.R. fatto a detti impresari che sarebbe di suo gusto che anche da qui a detto mese d'aprile prossimo venturo facessero travagliar alli cavi di terra et porto d'essa conforme a detta instruttione da Sant Antonio al Bastione della madona delli Angeli per la larghezza d'otto trabucchi almeno, e profondita che richiede la fortificatione e piutosto lasciassero di fare fra detto tempo li cavi e porto d'essa terra per la strada coperta et argine o sia spalto del bastion verde a Sant Antonio come sono obligati per detto contratto per farlo puoi nell'anno venturo 1675 tanto piu che vi sono molti operarij quali dimandano d'andar travagliare in detti posti da Sant Antonio alla madona delli Angeli

in quali non sendo impiegati vogliono abandonar il travaglio come gia alcuni hanno fatto. Siansi detti impresari accontentati a conditione pero ch'ove con le luoro diligenze non potessero compire alla luoro obligatione portata da detto contratto per quello riguarda li cavi di terra e porto d'essa dal bastion verde a Sant Antonio in tal caso tenga luogo in detta luoro obligatione li cavi di terra e porto d'essa c'havessero fatto da detto Sant Antonio al bastione della madonna delli Angeli con piu che ove havessero tanti operarij con quali potessero far il cavo della meta del foasso a portar la terra ne terrapieni come dispone detto instruttione da Sant Antonio alla madonna delli angeli et compire li cavi et porto d'essa terra alla mente di detta instruttione dal bastion verde a Sant Antonio lo puossino fare il che tutto li sia stato accordato ne altro resti che di ridurre in scritto. Quindi e che costituito personalmente avanti noi li sudetti capi mri impresari Pietro Laurenti del fu Giacomo di Carabia stato di lugano, Giacomo Mosso delfu Fran.co di Muzzano, Carlo Sinale delfu Bernardo di Graglia, Michel Mossino delfu Giacomo di Loggio Valsolda stato di Milano, Fran.co Bariffo di Dom.co di Massagno stato di lugano, et Giacomo Bovero delfu Matteo di Poria Vald'intelvi pur stato di Milano li quali tutti unitamente che separatamente ogn'uno in solidum et per il tutto con le renontie ^{alli} beneficij di divisione escursione et ordine et alla forma de debitori fiscali e camerari con la presenza et consenso dell'infrascritti Avvocato Gaspare Cazzulli, et il Pietro Griottero luoro sigurta et approbatore hanno promesso et promettono d'osservar quanto sopra et di non ^o contravenirli di raggione di fatto ancorche di ragion potessero o d'alcuno d'essi potesse sott'obligo di luoro persone e beni rispettivamente presenti e futuri quali si costituiscono tener obligati et hipotecati per l'intiera osservanza di quanto sopra come sono obligati per il sovra dassignato contratto qual nel rimanente restera nella sua forza e vigore, renontie et altre clausule e cautelle pur in forma camerale luoro giuram.to mediante prestato toccate corporalmente le scritture nelle mani di me consig.re e seg.ro di stato e di finanze di S.A.R. sottos.to dichiarando che non s'intende fatta novatione alcuna pregiudiciale al sig.r patrimoniale rispetto il contratto sudetto, intervenendo li sudetti avvocato Gaspare Cazzulli et Pietro Griottero quali hanno prestato qui gnti a tutto quanto sopra il loro consentimento estendendo l'obligatione gia da luoro passata a tutto quanto sopra et etiandio in quanto sia di bisogno si sono novamente resi et si rendono sigurta et approbatore rispettivam.te de sudetti impresari

et principali debitori et osservatori per l'adempimento intiero di tutto quanto sovra cad. in solo et per il tutto con le rinontie pred.e alli beneficij di divisione escusione et ordine et con tutte le altre sottomissioni in forma camerale ~~xxxxxx~~ mediante anche luoro giuramento prestato toccate le scritture nelle mani di me gia detto et infras.to consig, re et segretario quali sigurta et approbatore li predetti capi mri Laurenti, Mosso, Sinale, Mossino, Bariffo et Bovero compagni impresari hanno reiterato giuramento per luoro prestato come sovra promesso et promettono cad.o in solidum et per il tutto con le renontie sudette di tener rilevati indemni et illesi dal carico della pnte fidecussione et approbatione con tutti li danni interessi e spese sott' obligo di luoro persone e beni pnti e futturi, con la clausula del costituito possessonno d'essi renontie et altre clausule et cautelle in forma camerale

Presenti li ssri. patrimoniali et accentanti quali s'obbligano di pagarli anticipatamente ogni settimana livre sei milla d'arg.to ap. 20 l'una et di piu suplire di quello che portera la misura settimana per settimana da incontrarsi esse livre sei milla d'anticipato nelli ultimi travagli de cavi. Di che tutto dett'ecc.mo consiglio n'ha concesso et concede testimoniali. Dati in Torino li venti due di dicembre 1673 Per dett'ecc.mo et Ill.mo consiglio sig.to et sottos.to Buonfiglio

Doc. 24.

AST, Sez. Riunite
Fabriche e Fortificationi, art. 201, registro 1673-1674

Sr. Gio. Matteo Belli economo deputato da S.A.R. nella tes.ria gnale pagara ... alli capi mri Pietro Laurenti, Giacomo Mosso e compagni impresari della fortificatione ordinata all'aggrandimento di questa citta livre sedici milla d'arg.to ap. 20 l'una a conto d'essa luoro impresa et per anticipata accordatagli per le provisioni de mattoni, calcine et altri materiali in ordine al qungiunto contratto passato avanti noi sotto li 22 del cadente mese, che ritenendo col pnte copia autentica di detto contratto e quittance d'uno de sudetti capi mri impresari le saranno esse L.16000 fatte buone ne suoi conti senza difficolta nesuna. Torino li 29 dicembre 1673 -
Sotto.to Batta Truchi, GioAndrea Ferrari, Horatio Gina
Segue contratto

Ad ogniuno sia manifesto conciosia che per contratto fatto avanti questo consiglio sotto li ondecì ottobre pross.e scorso li capi mri Pietro Laurenti, del fu Giacomo di Carabia stato di Lugano, Giacomo Mosso delfu Fran.co di Muzzano, Carlo Sinale del fu Bernardo di Graglia Michel Mossino del fu Giacomo di Loggio Valsolda stato di Milano, Fran.co Bariffo di Domenico di Massagno stato di Lugano, et Giacomo Bonevo del fu Matteo di Poria Val di Intelni pur stato di Milano siansi obligati di far per tutto ottobre dell'anno venturo 1674 le muraglie della cittanova del Borgo di Po dal Bastion Verde sino alla strada grossa sotto S. Antonio all'altezza d'un trabucco e mezzo fuori di terra et altre tanto nell'anno 1675 da detta strada fino al bastione della Madonna delli Angeli et meglio come per detto contratto si legge al qual negli occorrenti s'habbi l'opportuna rellatione; doppo di che havendogli questo consiglio fatto sapere che S.A.R. desidera ch'antecipino la fattura di dette muraglie da detta parte cioe da SantAntonio al bastione della Madonna delli Angioli col farla anche nell'istante anno 1674 li sudetti capi mri impresari per incontrare il gusto et sodisfatione di S.A.R. si siano accontentati di farlo mediante le cose segenti quindi e dunque che costituiti personalm.te avanti noi li sud.ti capi mri Pietro Laurenti, Giacomo Mosso, Carlo Sinale, Michel Mossino, Fran.co Bariffo et Giacomo Bonevo compagni impresari li quali tanto unitamente che separatamente ogni uno in solidune et ber il tutto con le renontie alli beneficij

di divisione, escusione, et ordine et con tutte l'altre renontie et sottomissioni in forma camerale per luoro et cad.o di luoro heredi e sucessorij hanno promesso et si sono sotto messi promettono et si sottomettono di fare le muraglie della detta nova cinta del Borgo di Po da Sant Antonio al bastion della Madona delli Angeli sin all'altezza d'uu trabucco e mezzo fuori di terra sopra espressa fra et per tutto il mese d'ottobre dell'anno prossimo 1674 atteso che se gli accorda come infra

Primo che nella costruzione delle sudette muraglie da farsi da Sant Antonio al bastione della Madona delli Angeli potranno impiegare per la meta calcina di Rivara e Giavenno Moretta, et l'altra metta forte di quella di Superga, Castiglione, Cordua e Lauriano, et almeno forti d'ugual bonta ad esclusione pero del incamisata e fondamenti che dovrà esser tutta intieramente forte

2. Si fara tralasciare la fabrica da farsi per la restaurat.ne della Cittadella per et durante tutto l'anno prossimo 1674 -

3. Seli fara dar un sito o siti ne beni di Valentino e vicinato per piantarvi fornaci et fabricar mattoni senza pagam.to d'alcun fitto ne prezzo per servirsene all'uso sudetto e non altrimenti -

4. Seli fara un anticipata di livre sedici milla per impiegarle nelle provisioni di detta fabrica da incontrarsi repartitamente nell'ultime mesate del travaglio di dett'anno mille seicento sttanta quatro.

5. Per la sudetta muraglia da farsi nell'anno prossimo 1674 da Sant Antonio sino alla Madona delli Angeli sin all'altezza d'un trabucco e mezzo fuori di terra oltre le fundamenta seli pagara una libra per cad.o trabucco di piu del prezzo portato dal sudetto contratto ch'in tutto sono livre diecisette e soldi dieci per trabucco

6. E per gli travagli da farsi nell'anno 1675 e susseguente come pur in tutto il resto stara intieramente fermo il sudetto contratto etiando quanto alli prezzi et l'atto puoco avanti il presente stipulato per l'escavatione de fosso.

7. Per chiarezza del capo terzo si dichiara che non trovandosi terra buona et in sufficienza per fabricar buoni mattoni ne sitti in detto capo espressi in quel caso dovendo far condurre li mattoni da Vanchiglia e Valdoc o d'altrove sara in facolta dels.Patrim.le di S.A.R. di darli soldi cinque di piu del prezzo sudetto per ogni trabucco della muraglia da fabricarsi come sopra e pur di bonificarli la maggior spesa ... condotta da detta chiesa di Sant Antonio alli luoghi del travaglio senza che puossino detti impresari pretender maggior bonificatione

Acio tutto senza recesso ne alteratione nel resto del sudetto contratto et dell'atto puoco avanti questo fatto circa l'escavatione li quali restaranno nella luoro forza e vigore come sopra

Il che tutto essi capi mri Laurenti, Mosso, Sinale, Mossino, Bariffo e Bovero compagni impresari promettono ogniuno in solidum et per il tutto con la renontie predette d'attender et intieramente osservar sott'obligo gl'uni e gl'altri di luoro persone e beni pvti e d'avenire con la clausola del costituito amplissimo possessorio d'essi renontie et altre sottomissioni clausole et cautelle in forma camerale mediante luoro giuramento prestato toccate corporalmente le scritture nelle nelle mani di me cons.re di stato e di finanze di S.A.R. sottoscritto et per maggior cautella tanto dell'anticipate che se gli faranno che per l'intiera osservanza di tutto quanto sovra hanno dato e danno di novo in sigurta Il sr. avvocato Gaspare Cazzulli et in approbatore Pietro Griottero ambi pvti cautenti fideinbenti et se principali debitori et osservatori costituenti ogn'uno in solidum et per il tutto con le renontie alli beneficij di divisione escussione et ordine sott' obligo di luoro persone e beni presenti e futuri con la clausola predetta del costituito amplissimo possessorio renontie et altre clausole e cautelle in forma camerale luoro giuram.to mediante prestato toccate le scritture nelle mani di me predetto cons.re e seg.ro infras.to quali sigurta et approbatore essi capi mri Laurenti, Mosso, Sinale, Mossino, Bariffo, e Bovero con reiterato giuram.to^o luoro prestato hanno promesso et promettono di tener rilevati indenni et illesi dal carico della pnte fidecussione et approvat.ne con tutti li danni interessi e spese sott'obligo cad.o in solidum e per il tutto con le premesse renontie di luoro persone e beni pnti e d'avenire quali si costituiscono tener obligati et hippotecati per cautella di quantos.a -

Presenti li sri patrim.li et acce ttanti quali attesa l'approvazione di S.A.R. havuta per relatione fatta dall'ecc.mo primo presidente Truchi promettono l'osservanza di quanto sovra. Di che tutto detto ecc.mo consiglio ne ha concesso et concede testimoniali dati in Torino li 22 xbre 1673

Per dett' Ill.mo et ecc.mo consiglio sig.to et sottos.to Buonfiglio

Doc. 25.

AST, Sez. Riunite
Fabriche e Fortificationi, art. 201, registro 1673-1674

Il tesoriere genle Gio Matteo Belli pagara alli capi mri Pietro Laurenti, Giacomo Mosso e compagni impresari della fortificatione ordinata all'aggrandimento della pnte citta livre dieci milla d'arg. a p.:20 l'una a conto d'essa luoro impresa et per anticipata nuovam.te accordategli in ord.e al contratto qui gionto delli 2 corrente Giugno. Che ritenendo col presente copia autentica di d.o contratto e quittance di uno de sud.i capi mri impresari le saranno esse L.10000 fatte buone ne suoi conti senza difficulta nesuna. Torino li 8 Giugno 1674 -

Sottos. Truchi, Ferrari, Horatio Gina

Tenor del sovramentionato contratto

Ad ogn'uno sia manifesto che volendo S.A.R. per degni risguardi del suo real servitio s'avanzino nel corrente anno almeno sin'al cordone le muraglie tutto interna la fortificatione ordinata all'aggrandim.to della presente citta ci habbia comandato di procurarne l'effetto. In seguito al cui commando si sijmo per quatro volte congregati a fine d'essaminare le forme ed spedienti piu proprij ed in primo luogo habbiamo fatto chiamare li capi mri Pietro Laurenti, Giacomo Mosso, ed altri luoro compagni impresari di detta fortificatione per disporli ad'incontrare li commandi e gusti dell'A.S.R.le in abbraciare l'avanzam.to nel cor.te anno delle muraglie di tutta la cinta di detta fortificatione sin'al cordone o di lasciare alla dispositione di d.a A.R.le il finim.to della meta d'essa, cioe dalla parte verso il Valentino, e compiscono sin a d.o cordone dall'altra parte verso la Dora ; e doppo molte rimonstranze fatteli compresi sud.i che separatamente si siano tutti unitamente risolti ed accontentati ed in conseguenza promesso di compir luoro repartitamente sino e per tutto ottobre dell'anno corrente sin'al cordone tutta la cinta di detta fortificatione dell'aggrandimento nuovo di questa citta mediante qualche augm.to di prezo di dette muraglie in riguardo delle maggiori spese che li converra fare nelli maggiori travagli che s'assumano qual augm.to di prezo gli habbino accordato di soldi dieci cadun trabucco di muraglia che faranno in quest'anno e per tutto il mese d'ottobre dall' altezza d'un trabucco e mezo fuori di terra esclusivamente sin'al d.o cordone tanto dalla parte verso Dora che da quella verso il Valentino; e di piu un'

livre sedici e soldi dieci aggiustate nel primo contratto e dall' altra parte verso Dora si come la muraglia che si deve fare sino alla medema altezza d'un trabucco e mezzo fuori terra si deve pagare livre sedici e soldi dieci cadun trabucco cosi tutta la muraglia che si fara al di sopra di esso trabucco e mezzo dalla detta parte fino al sud.o cordone si pagara luoro livre diece sette per cadun trabucco; intendendosi pero solamente questi prezzi aggiustati per li travagli da farsi come sopra per tutto ottobre dell'anno corrente -

Piu saranno obligati come s'obligano e promettono di rillevare il sig.r patrimoniale dalli contratti sin qui fatti per la provisione delle calcine e di passare le capitolazioni tanto con quelli ch'hanno gia stabiliti li luoro contratti quanto con quelli ch'hanno solamente dati li loro partiti

Piu s'accorda d.i impresari nuova anticipata di livre dieci milla arg.to a p. 20 l'una per impiegarle nelle promisioni e condotte de materiali da rimborsarsi pero repartitamente nelle cinque mesate di travaglio del corrente anno finienti per tutto ottobre prossimo Piu si dichiara che mancando d.i impresari di fare la muraglia come sopra promessa tutt'intorno la citta della sud.a fortificat.ne ordinata all'ingrandimento della pnte citta sino al cordone repartitamente per tutto il mese d'ottobre si levara loro soldi cinque delli dieci d'accrescimento di prezzo sovra fattoli oltre che dovranno essi imp.ri star a tutti li danni e spese che ne puotesse patire il reggio servitio; che cosi e statto convenuto per patto espresso e resolutivo - Piu detti capi mastri imp.ri hanno nominato e nominano in loro Proc.ri genli e in solidum li mastri Fran.co Bariffo e Carlo Sinale loro compagni volendo che tutto q.llo che si fara in e per d.a impresa e dependenti da essa tanto giudicialmente che estra giudicialmente in essecutione de contratti con li medemi Bariffo e Sinale e tanto per ... ordinanze o precetti che per via di contratto debba havere l'istessa forza come se fosse seguito con tutta la compagnia per quello riguarda il sig.r patrimoniale -

In'oltre hanno nominato e costituito nominano e costituiscono in loro proc.re a comparer tanto avanti questo magistrato ch'ogni altro in tutte le cause si attive che passive e a tutti loro atti giuridici necessarij e opportuni sino alle ... diffinitive melusivamente e loro essecutione il Lorenzo Boazzo de causidici colleggiati nell'ecc.mo Senato con le debite promesse de ... e sotto l'infrasta obligat.ne de loro beni e giuramen.to renontie rellevat.ni e altre clausule opportune -

anticipata di livre dieci milla da rimborsarsi nelle cinque mesate di travaglio dell'anno corrente finienti per tutto ottobre; con obligo a detti imp.ri di rillevare il sig.r patrimoniale di tutte le calcine appontuate e contrattate e con dichiarat.ne o sij patto espresso e risolutino che mancando la muraglia come sovra promessa sin'al cordone si debbino levare soldi cinque delli dieci d'accrescimento sovra fattoli, oltre l'attione verso o sia contro di loro di tutti li danni e spese che ne potesse patir il real servitio confermando nel resto li contratti gia per detta impresa passati avanti noi sotto li ondecim ottobre ed 22 dicembre dell'anno hora scorso. Quindi e che costituiti personalmente avanti noi hoggi i sud.i capi mastri Pietro Laurenti delfu Giacomo di Carabia stato di Lugano, Giacomo Mosso delfu Francesco di Muzzano, Carlo Sinale delfu Bernardo di Graglia, Fran.co Bariffo figliuolo di Dom.co di Massagno stato di Lugano, Michel Mossino delfu Giacomo di Loggio Valsolda stato di Milano, e Giacomo Bovero delfu Matteo di Poria Val di Intelni pur stato di Milano compagni impresari della fortifficat.ne ordinata all'Ingrandim.to di questa citta li quali ogn'uno in solidum e per il tutto con le renontie alli beneficij di divisione, escusione ed ordine per luoro, luoro heredi e cadun di luoro heredi e succesori hanno promesso e si sono sottomessi promettono e si sottomettono di fabricare e far construer repartitam.te nel corrente anno tutto il recinto della muraglia o sij nuova fortifficaz. di questa citta sin'all'altezza alla quale deve portarsi il cordone d'essa muraglia secondo l'instruttione del sig.r Conte e P.o Ingeg.re di S.A.R.le A,edeo Castellamonte ad'essi gia rimessa, e cosi di dar essa muraglia fornita sin'al altezza del cordone tato dalla parte verso Dora che verso il Valentino nell'anno corrente e fra limasi portati dalli loro contratti delli 11 ottobre e 22 dicembre dell'anno hora scorso che restaranno nel loro essere e vigore senz'alcuna novatione eccetto che S.A.R. sara tenuta di pagarli soldi dieci di piu de prezzi portati da detti contratti per ogni trabucco di muraglia che faranno oltre ad'un trabucco e mezzo d'altezza fuori di terra tutto intorno, e alla quale erano gia tenuti per detti contratti, sino al sudetto cordone, in modo che si come per la muraglia che si fara da d.a parte del Valentino in quest'anno si deve pagare sino all'altezza d'un trabucco e mezzo per forma di detto ultimo contratto livre dieci sette soldi dieci d'arg.to a p.:20 l'una per ogni trabucco cosi tutta quella muraglia che si fara da detta parte oltre il trabucco e mezzo fuori terra sin'all'altezza di d.o cordone si pagara livre diece otto per cadun trabucco che sono soldi trenta di piu delle

Il che tutto e quanto sopra resta espresso e dichiarato li sud.i capi mri. Pietro Laurenti, Giacomo Mosso, Carlo Sinale, Fran.co Bariffo, Michel Mossino e Giacomo Bovero compagni impresari cad.o in solidum e per il tutto con le renoncie come sopra alli beneficij di divisione escusione e ordine hanno promesso e si sonno sottomessi promettono e si sottomettono attender e intieramente oservare sotto obligo di luoro persone e beni presenti ad'avenire con la clausola del costituito possessorio d'essi renontie e altre clausule e cautelle in forma camerale mediante luoro giuram.to prestato toccate corporalmer te le scritture nelle mani di me consig.re e seg.ro di stato e di finanze di S.A.R.le sottos.o e per maggior cautella del sig.r patrimoniale tanto per l'anticipato muovamente accordatagli che per l'intiera osservanza di quanto sopra oltre l'obblligatione per detti capi mri imp.ri passata caduno in solidum e per il tutto come sopra hanno di nuovo dato e danno in sigurta il sig.r avvocato Gaspare Cazzullo delfu sig.r Gi Dom.co della pnte citta e in approbatore Pietro Griottero fig.lo emancipato di Fran.co Griottero sellaro di S.A.R. ponti caventi, fidembenti e se principali debitori e osservatori di quanto sopra costituenti sotto obligo l'uno e l'altro caduno in solidum e per il tutto con le renontie opportune come sopra per luoro e cadun di luoro heredi e successori di luoro persone e beni presenti e futuri con la sud.a clausula del costituito possessorio ^{mm}applissimo d'essi renontie e altre calusule e cautelle in forma camerale mediante parimente luoro giuramento prestato toccate come sopra le scritture nelle mani di me predetto consig.re e seg.ro infras.o quali sigorta e approbatore detti capi mri Laurenti, Mosso, Sinale Bariffo, Mossino e Bovero compagni imp.ri con reiterato giuram.to per loro prestato toccate come sopra le scritture hanno promesso e promettono tenere rillevati indemni, e illesi dal carico della pnte fidemissione e approbatore sotto obligo ogn'uno in solidum e per il tutto di luoro persone e beni pnti e d'avenire con la clausula premessa del costituito possessorio e renontie sud.e -

Presenti il sig.r patrimoniale generale Angiono e accettante per S.A.R. a buon conto e a riserva di mag.r cautione se sia di bisogno; di che tutto d.o ecc.mo consiglio ne ha concesso e concede testimoniali, Dato in Torino li 2 giugno 1674 -

Per il Il.mo e ecc.mo consiglio sigill.o e sottos.o Buonfiglio

Doc. 26

AST, Sez. Riunite
 Fabriche e Fortificazioni, art. 201, registro 1673-1674

Oct. 12, 1673	-	L.14000,	advance
" 14 "	-	L. 2000,	for the moat
" 26 "	-	L. 4000	"
Nov. 5 "	-	L. 3000	for excavations
" 13 "	-	L. 2000	"
" 21 "	-	L. 5000	"
" 27 "	-	L. 4500	"
Dec. 1 "	-	L. 4000	"
" 7 "	-	L. 4000	for the moat
" 13 "	-	L. 4000	"
" 22 "	-	L. 2000	"
" 29 "	-	L. 6000,	advance for the moat
Jan. 17, 1674	-	L. 2000	for the moat
" 31 "	-	L. 8000	for excavations
Feb. 9 "	-	L. 5000	for the moat
" 13 "	-	L. 6000	"
" 23 "	-	L. 6000	for excavations
" 28 "	-	L. 6000	"
March 6 "	-	L. 4031	for the moat
" 12 "	-	L. 3167	"
		L. 4000	for the walls
" 19 "	-	L. 2344	"
		L. 2656	for the moat
" 28 "	-	L. 1961	"
		L. 2475	for the wall
April 6 "	-	L. 6000	"
" 12 "	-	L. 1200	for excavations
" 20 "	-	L. 6000	for the walls
" 27 "	-	L. 6000	"
May 1 "	-	L. 5013	"
		L. 1387	for excavations
" 12 "	-	L. 6000	"
" 20 "	-	L.10000	"
" 25 "	-	L. 6000	"
" 30 "	-	L. 8000	"
June 5 "	-	L.10000	"
" 8 "	-	L.10000	advance
" 13 "	-	L.10890	"
" 18 "	-	L. 4000	"

June 22, 1674	- L.16656,	general	
" 29	" - L.14000	"	"
July 7	" - L.16852	"	"
" 12	" - L.15750	"	"
" 21	" - L.12000	"	"
" 28	" - L.12000	"	"
Aug 4	" - L.12000	"	"
" 11	" - L. 7000	"	"
" 18	" - L.12000	"	"
" 25	" - L.17000	"	"
Sept 1	" - L.10225	"	"
" 8	" - L.18000	"	"
art.201, registro secondo, 1674-1675			
Sept 15	" - L.17386,	general	
" 21	" - L.11000	"	"
" 29	" - L. 9000	"	"
Oct 5	" - L.10000	"	"
" 12	" - L.12000	"	"
" 20	" - L. 2000,	for excavations	
" 27	" - L. 3000	"	and walls
Nov. 3	" - L. 2500,	for the finishing of moat	
" 4	" - L. 6000,	general	
" 17	" - L. 6000	for the finishing of moat	
" 24	" - L. 2000	"	"
" 23	" - L. 8000,	for materials	
Dec. 1	" - L. 3215,	for the moat	
" 8	" - L. 2700	"	"
" 13	" - L. 6000,	for bricks	
" 14	" - L. 3120,	for the moat	
" 21	" - L. 2500	"	"
Jan. 5, 1675	- L. 1380,	for the moat and covered street	
" 12	" - L. 2829	"	"
" 18	" - L. 2284	"	"
" 26	" - L. 2450	"	"
Feb. 2	" - L. 2692	"	"
" 9	" - L. 2162	"	"
" 16	" - L. 2818,	for the excavations	
	L. 350,	for the levelling of street on Pza. Castelo	
		towards the expansion area	

Feb. 23, 1675	-	L. 2923,	for excavations and earth moving		
March 2,	"	- L. 2245	"	"	
" 6	"	- L. 1247,	for the lime		
" 9	"	- L. 1671,	for the moat and the "mezzelune"		
" 16	"	- L. 1836.6,	for the moat		
		L. 4000,	for finishing Po gate guardhouse, walls of the new garden, garite(?) of new and old bastions, recladding of Bastionverde and the curtain wall between it and S.Ottaviano bastion		
" 23	"	- L. 1876.4,	for the moat		
" 30	"	- L. 2620,	for the moat, the covered street and the m-z's		
April 12	"	- L. 3143.2,	for the moat		
" 20	"	- L. 1500,	general		
" 27	"	- L. 1200,	for excavations		
May 4	"	- L. 2500,	for the moat, and the garden walls		
" 17	"	- L. 2000	"	"	
" 25	"	- L. 1500	"	"	
" 31	"	- L. 1500	"	"	
June 8	"	- L. 1300,	general		
" 14	"	- L. 1200,	for excavations and the Po gate guardhouse		
" 22	"	- L. 1200	"	"	
" 29	"	- L. 1500,	general		
July 6	"	- L. 1356,	Po gate guardhouse, garden walls and general		
" 12	"	- L. 1200	"	"	
" 20	"	- L. 1500,	excavations, Po gate guardhouse, general		
" 27	"	- L. 1000	"	"	
Aug. 3	"	- L. 1200,	general		
" 9	"	- L. 2000,	Po gate guardhouse, garden walls		
" 17	"	- L. 1200	"	"	
" 23	"	- L. 1000	"	"	
" 30	"	- L. 1500	"	"	and excavations
Sept. 7	"	- L. 1200	"	"	and general
" 14	"	- L. 1000	"	"	"
" 20	"	- L. 1200	"	"	"
" 28	"	- L. 1200	"	"	"
Oct. 5	"	- L. 1400	"	"	and excavations
" 12	"	- L. 1200	"	"	and general
" 19	"	- L. 1000	"	"	"
" 26	"	- L. 1500	"	"	and excavations

Nov. 1, 1675 - L. 1000, excavations and general works
 " 10 " - L. 1200 " "
 " 26 " - L. 1500 " "
 art. 201, registro terzo, 1675-1676
 Dec. 7, 1675 - L. 800, excavations and general works
 " 16 " - L. 1000, general
 Jan. 12, 1676 - L. 255, excavations
 " 26 " - L. 456, moat
 Feb. 8 " - L. 380 "
 " 16 " - L. 1035 "
 March 7 " - L. 1625.10, for the moat and the covered streets
 " 14 " - L. 1221.14, for the moat
 " 21 " - L. 1317 "
 April 3 " - L. 2573 "
 " 17 " - L. 2000 for the moat and walls
 May 3 " - L. 1658 "
 " 4 " - L. 1000 walls
 " 16 " - L. 1165 for the moat
 L. 500 for the walls
 " 23 " - L. 1400 moat and general
 June 7, 1676 - L. 1535 moat and walls
 " 26 " - L. 1246.17 " "
 July 11 " - L. 246 for the moat
 Aug. 5 " - L. 866 excavations
 " 21 " - L. 264 "
 " 30 " - L. 537 walls of mezzaluna in front of Po gate
 Sept. 11 " - L. 363.10, excavations
 Oct. 31 " - L. 782.5 "
 Nov. 25 " - L. 290.15 "
 Dec. 21 " - L. 1100 "
 art. 201, registro quarto, 1677
 Feb. 25, 1677 - L. 1418.5, excavations
 Sept. 21 " - L. 549 "
 art. 201, registro primo, 1678
 June 2, 1678 - L. 300, for superga lime

Doc. 27.

AST, Sez. Riunite

Fabriche e Fortificationi, art. 201, registro secondo 1674-1675

Il. tes.re genale Gio Matteo Belli pagara alli piccap.re Casella e Aprile livre cinque cento e ventidue d'arg.to a p.:20 l'una valuta di dop.e 36 Italia a L.14.10 ca.a cioe dop.e 35 per sette medaglie di marmo ch'hanno fatto e rimesse per lisette bastioni del nuovo ingrandimento di questa citta a rag.e di dop.e 5 caduno prezzo aggiustato da S.A.R. e dop.e una accordata dalla medema R.A.a per la pronta condotta delle pietre a questa citta; come appare per la alligata fede di S.r De caroli sovrastante delle fabriche e fortificationi di d.a A.R. delli 17 7bre prossime passato e dichiarat.ne e verifficat.ne in suo ... fatta dal sig.re cont.re generale delle finanze Gallinati li 10 del corrente 8bre, che rittenendo col pnte d.a fede e dichiarat.ne insieme la quittance di sud.i piccap.re Antonio Casella e Carlo Alessandro Aprile le saranno esse L.522 fatte buone ne suoi conti senza difficulta veruna. Torino li 12 8bre 1674 -
Sottos. Truchi, Ferrari, Gina -

Li d.i Antonio Casella e Carlo Alessandro Aprile hanno fatto le sette medaglie di marmo con suoi impronti di basso rilievo le quali hanno da servir alli sette bastioni nuovi della pnte citta, hanno pure li sud.i provisto li marmi a sue spese. Di piu hanno fatto gl'incanti a sei delle sud.e che seglie messo a ogniuno suoi piedi o sia ...
Torino li 17 7bre 1674 -

Le sovrastante sette medaglie di marmi fatte e rimesse dalli piccap.re Casella e Aprile sono state aggiustate da S.A.R. in dop.e cinque cad.a a L.14.10 caduna con piu altra doppia accordatali dalla med.a R.A.a per la pronta condotta delle pietre a questa citta che in tutto sono dop.e 36 e alla sud.a rag.ne fanno L.522 d'arg.tà a p.20 l'una de quali li medemi restano creditor. Torino li 10 8bre 1674
sottos.o Gallinati cont.re gle.

Doc. 28.

AST, Sez. Riunite
Fabriche e Fortifications, registro secondo 1674-1675

Il tes.re gnale Gio Matteo Belli pagara al cavaterra Giacomo Baijetto livbre cento venti due d'arg.to a p.20 l'una per trabucchi trenta e piedi tre di cavà di terra c'ha fatti per spianamento della nuova Piazza Castello tra il fosso di Piazza Castello e quello della vecchia fortificatione di questa citta com'appare per l'alligata misura del s.r Gaspare Ferrero misuratore di S.A.R. delli 2 del corrente 9bre approvata dal control.re generale delle finanze Gallinati il giorno d'hoggi a rag.ne di L.4 cadun trabucco prezzo aggiustato da d.e contrl.re generale Gallinati. Che ritenendo col presente detta misura e approvatione e insieme la quittance del sud.o cavaterra.....

Doc. 29.

AST, Sez. Riunite
 Fabriche e Fortificationi, art. 201, registro secondo 1674-1675

Sig.r tes.re gnale GioMatteo Belli pagara al cavaterra Giacomo Baijetto livre cento quaranta sette soldi quatordecim e dinari cinque d'arg.to a p. 20 l'una per supplemento di L.291.14.5 simili a che rillevano li trabucchi stenta due piedi cinque et oncie sette di cavo di terra ch'fatti per il spianamento della Piazza Castello et nell'angolo tra la Gran Galleria et l'accademia a rag.ne di L.4 cadun trabucco prezzo aggiustato dal cont.re gnale delle finanze Gallinati come per misura del s.r Gaspare Ferrero agrimensore di S.A.R. delli 15 del corrente ottobre approvata da d.o cont.re gnale Gallinati detto giorno 15 8bre sud.o da qual approvat.ne consta esserli stato pagato in conto del travaglio delli sud.i trabucchi n.o 72.5.7 livre cento quaranta quatro in virtu di due nri ordini uno delli 17 7bre prossime scorso di L.88, et altro delli 30 med.o di L.56, che ritenendo col pnte detta misura e sua approvat.ne et assieme la quittance di detto Baijetto esse L.147.14.5 le saranno fatte buone ne suoi conti senza veruna difficulta. Torino li 17 8bre 1675 Sottos. Truchi, Ferrari, Gina Segue la misura. Tutto il cavo di terra fatto di Giacomo Baijetto per il spianamento della piazza del Castello et nell'angolo tra la gran galleria et accademia ascende a trabucchi stenta due piedi cinque oncie sette dico TR 72.5.7. Torino li 15 ottobre 1675 - sottos. Ferrero misuratore di S.A.R.

Li trabucchi 72 piedi 5 oncie 7 di cavo di terra fatto fare come s.a da Giacomo Baijetto rillevano a rag.ne di L.4 cad.o trab. prezzo da me aggiustato livre 291 soldi 14 d'arg.to a p.20 l'una da quali si devono dedurre L.144 pagategli in virtu di due ordini dell'ecc.mo cong.o delle finanze cioe uno li 17.7bre hor scorso di L.88 e l'altro delli 30 med.o di L.56 sicche resta creditore per saldo di L.147.14.5 Torino li 15 8bre 1675 - dico L.147.14.5- Gallinati cont.re gnale.

Doc. 30.

AST, Sez. Riunite

Fabbriche e fortificazioni, art.201, registro secondo 1674-1675

Il tes, re gne Gio Matteo Beili pagara al cavaterra Giacomo Baijetto livre cinquanta sei d'arg.to a p.20 l'una per trabucchi quatordecì di cavo di terra c'ha fatti per il spianam.to della piazza nell'angolo tra la gran galleria e l'accademia a rag.ne di livre quattro cadun trabucco prezzo aggiustato dal sig.r cont.re generale Gallinati com'appare per l'alligata misura del sig.r Gaspere Ferrero agrimensore di S.A.R. delli 29 cadente settembre approvata da d.o control.re generale Gallinati il giorno d'hoggi. Che ritenendo col pnte detta misura e approvat.ne insieme la quittance del sud.o Baijetto le sarranno esse L.56 fatte buone ne suoi conti senza difficolta veruna. Torino li 30 7bre 1675 -

sottos. Truchi, Ferrarri

Misura del cavo di terra fatto da Giacomo Baijetto per il spianamento della piazza nell'angolo tra la gran galleria e accademia sino al giorno d'hoggi fatto in tutto trabucchi trenta sei da quali si devono dedurre trabucchi venti due gia in altra misura data dico TR. 36. Torino li 29 7bre 1675 sottos. Ferrero misuratore di S.A.R. Li trabucchi n.o 14 di cavo di terra fatto da Giacomo Baijetto come sovra a L.4 cadun trabucco prezzo da me aggiustato rillevano livre cinquanta sei d'arg.to a p.20 l'una de quali resta cred.re Torino li 30 7bre 1675 - sottos. Gallinati cont.re gle.

Doc. 31.

AST, Sez. Riunite
Fabriche e Fortificationi, art. 201, registro secondo 16741675

Il tes.re genle Gio Matteo Belli pagara al sternitore Bernardo
- Garzena livre duecento quaranta quatro soldi dieci dannari due
d'arg.to a p.20 l'una per supplem.to di L.484.16.2 simili a che
rillevano li sterniti da lui disfatti e rifati nella contrada avanti
il quartiere de Todeschi e nella piazza di San Giovanni e altri
sterniti nuovi fatti ivi di pietre con esportatione di terra
com'appare per l'alligata misura e estimo del Gaspare Ferrero
misuratore di S.A.R. delli 6. del corrente settembre di conto dietro
essa fatto del sig.re aud.re Gina li 11 del medemo da cui consta
esserli solo stato pagato a conto de sud.i sterniti L.240
In virtu di due ordini nri delli 15 luglio e 2 agosto prossimo
passati che rittenendo col presente detta misura estimo e conto
insieme la quittance del sud.o sternitore Garzena le saranno
ess L. 244.16.2 fatte buone ne suoi conti senza difficulta veruna.
Torino, li 12 7bre 1675 -
sottos. Truchi, Ferrari, Gina

Doc. 32.

AST, Sez, Riunite
Fabriche e Fortificationi, art. 201. registro secondo 1674-1675

Sig.r Tes. gnle Gio Matteo Belli pagara a Antonio Chiampo la somma di livre settanta d'arg.to a p.20 l'una che sono a conto de giornali suoi et de suoi houmini c'hanno impiegato nell'accomodam.to della strada al pie del spalto verso Dora. Che ritenendo col pnte la qmitta di d.o Chiampo esse L.70 le saranno fatte buone ne suoi conti senza difficolta. Torino li 31 8bre 1675

Trucchi, Ferrari, Gina

Doc. 33.

AST Sez. Riunite
Fabriche e Fortificationi, art. 201, registro primo 1673-1674

Il tes.re genale pagara GioMatteo Belli alli capi mri Martino Ferro, Fran.co Pighino, Donato Solista e Fran.co Bariffo compagni impresari della fabrica dell'accademia, teatro, trincotto sulla delle feste portico con botteghe capella d'essa accademia e scudarie nuove livre dieci milla d'arg.to a p.:20 l'una a conto d'essa luoro impresa e per anticipata accordatali in ord.ne al qui gionto luoro contratto del giorno d'oggi; che rittenendo col pnte copia autentica di d.o contratto e quittance d'uno de sud.i capi mri Ferro, Pighino, Solista, o Bariffo compagni imp.ri le saranno esse L.10000 fatte buone ne suoi conti senza difficulta nesuna
Torino li 20 8bre 1674 -
Sottos.o Truchi, Ferrari, Gina -

Il Consiglio

Ad'ogn'uno sia manifesto che essendosi S.A.R. risolta di far fare nel recinto del nuovo ingrandimento di questa citta fra altre fabbriche gia delliberate un'accademia con salla delle feste, teatro, trincotto, capella d'essa accademia, portico con botteghe e scudarie nuove il tutto conforme al disegno e instruttione del sig.r conte e p.o ingeg.re di S.A.R, Amedeo Castellamonte ci habbia verbalmente ordinato di procurarne partiti ragionevoli e deliberarne l'impresa. In seguito al cui commando habbiamo sotto li 28 luglio prossime passato fatto nei luoghi soliti della pnte citta li bilette per invitare concorrenti all'impresa d'esse fabbriche e siano comparsi avanti noi sotto li 7 dell'hora scaduto agosto, giorno in cui ne cadeva il deliberamento alcuni capi mri con luoro partiti quali esaminati e ricinosciuto che li prezzi erano troppo eccessivi doppo sentiti separatamente detti concorrenti siano seguiti alcuni ribassi de medemi prezzi ma per essersi ancora questi considerati eccessivi, habbiamo stimato di diferirne il deliberamento con nuova monitione e a questo effetto fatto affiggere sotto li sedici del sud.o agosto nuovi bilette cadenti alle 17 del medemo. Nel cui giorno siano parimenti comparsi alcuni concorrenti; e p.o li capi mri Martino Ferro Fran.co Pighino e compagni li quali si siano ultimamente offerti di caricarsi dell'impresa d'esse fabbriche e di fare le muraglie di quatro corsi di pietra e uno di mattoni con luoro incamisata d'on.e 4 pur di mattoni ove sara ordinata al prezzo di L.16 cadun trabucco

quelle che saranno tutto di mattoni a livre sedici e soldi cinque e le muraglie ordinare di quattro corsi di pietra, uno di mattoni senza incamisata a livre quattordici e soldi quindici, le stabiliture a livre tre, li sterniti di quadrettoni a L.16, quelli di quadrettoni fregati e rigati a L.11, quelli di quadretti fregati e rigati a livre 8. li rustici a L.7 e quelli di pietre a L.2.10. Li cavi di terra compresso il trasporto d'essa cioè portandosi la terra nel vacuo del bastione di San Mauritio a L.9, e portandosi fuori negli Hosti (?) per formare il spalto a L.13 il tutto cadun trabucco, da misurarsi però l'incamisata di mattoni unitamente con la muraglia ordinaria in grossezza d'on.e 10 e quella di mattoni di on.e 6, e gl'ornam. ti e mettitura in opera di marmi all'estimo con obbligo d'impiegare sino ad'un trabucco fuori di terra tutta calcina forte e d'ivi sino al piano nobile inclusivamente metta dolce e metta forte e il finim.to con calcina tutta dolce, e sabbia grisa, e insieme di dare a coperto per tutto ottobre dell'istante anno 1675. la sala delle feste il teatro, trincotto, portico con botteghe, capella dell'accademia e stanze d'essa riguardanti verso Piazza Castello e il total finimento delle medeme opere, come pure le scudarie, ne due anni seguenti mille seicento settanta sei, e milleseicentoseventanta sette Repartitam.te e secutivamente fatti chiamare li capi mri Pietro Laurenti e compagni concorsi a detta impresa li quali siansi parim.te offerti di caricarsi della medema e di fare le muraglie ordinarie di quattro cori di pietra e una di mattoni al prezzo di L.14.15 cadun trabucco, quelle che saranno ordinate con l'incamisata da misurarsi essa incamisata unitam.te con la muraglia in grossezza di on.e 10 a L.16; di quelle tutte di mattoni da misurarsi d'on.e 6 a L.16.5 le stabiliture a L. tre, li sterniti tanto di quadrettoni stillati e rigati che altri come pure li cavi e trasporto di terra nei luoghi alli medemi prezzi portati dal partito di Ferro e compagni, e gl'ornamentie mettitura in opera di marmi all'estimo, con obbligo anche d'impiegare sino ad'un trabucco fuori di terra tutta calcina forte, e dal d.o piano o sia trabucco sino per tutto il piano nobile inclusivamente metta forte e metta dolce, e d'ivi in su tutta della dolce di Rivara o altra ugual bonta e forza con sabbia grisa come pure di dare per tutto ottobre dell'istante anno 1675 a coperto la sala delle feste, teatro, portico con botteghe, la capella e il trincotto, e le stanze dell'accademia riguardanti verso Piazza Castello

e il total finimento d'esse ne due anni seguenti 1676 e 1677 re-
 titamente e ne mesi proprij di travagliare lavori di cazzola, indi
 essendosi fatto chiamare mastro Carlo Righino e notificatogli li
 prezzi sudetti habbi quelli uguagliato e diminuito sovra tutta la
 massa d'essi prezzi livre due milla qual diminut. ne sendosi pari-
 menti notificata alli sud. i capi. mri Ferro e compagni, Laurenti
 e compagni sovra concorsi doppo diverse rimonstranze fattegli, accio
 si reducessero a migliorarla e finalmente ad 'accettarla havendo
 presistito di non poterlo fare; noi vista l'ugualita di detti
 partiti e la diminutione sovra fatta dal Righino di livre due milla
 habbiamo ordinato se ne facesse relat. ne a S.A.R. per indi deliberarne
 conforme a suoi reali voleri; la quale per il suo biglietto delli
 quattro di corrente circonscritta la diminut. ne sovra fatta da Mastro
 Carlo Righino di livre due milla sovra tutta la massa de prezzi,
 ci habbia dichiarato esserli di gradimento il partito di Ferro e di
 sua compagnia e comandato ch'omessa la formalita d'incanti e ogni
 altra se ne dovessimo far il delliberamento alli prezzi portati
 dal loropartito e espressi nel sovra designato e infratenorizzato
 biglietto; in virtu e essecutione del cui comando gl'habbimo delli-
 berata l'impresa della sud. a fabrica dell'accademia, sala delle
 feste, teatro, trincotto, capella, portivo con botteghe, e scudarie
 con le obligat. ni portati dal luoro partito sovra riferito e altre
 espresse nell' instrutt. ne del s. r conte e p. o ingeg. re Castellamonte
 in fra tenorizzata col sovra ddesignato bigl. o di S.A.R. debitam. e
 sped. o e sottos. o Giordano; in virtu del qual deliberam. to

Constituiti personalmente hoggi avanti noi li sud. i capi mri Martino
 Ferro del fu Carlo di Lamone stato di Lugano, Fran. co Pighino del fu
 Gio Batorita di San Fedele stato di Milano, Donato Solista del fu
 Gio Domenico di Salla stato di Lugano, e Fran. co Bariffo figliuolo
 di Domenico di Massagna pure stato di Lugano compagni impresari si
 sono sottomessi e obligati si sottomettono e obligano caduno in solidum
 e per il tutto con le renontie alli beneficij di divisione, escusione
 e ordine per luoro e cadun di luoro heredi e successori di fare la
 fabrica dell'accademia con sua capella piu la sala delle feste,
 teatro trincotto, portico con botteghe, e scudarie in tutto e per
 tutto conf. e all disegno e instruttione infra tenorizzato del sig. r
 conte e p. o ingeg. re di S.A.R. Amedeo Castellamonte e patti infra
 espressi alli sudetti e infrascritti prezzi;

cioe la muraglia ordinaria con sua incamisata di mattoni d'on.e 4 ove sara ordinata da misurarsi essa incamisata unitamente con la muraglia in grossezza di oncie dieci a L.16 d'arg.to a p.20 l'una cadun trabucco; le muraglie tutto di mattoni da misurarsi d'on.e 6 a L.16.5 e le muraglie ordinarie di quatro corsi di pietra e uno di mattoni a L.14.15; le stabiliture a L.3, li sternitti di quadrettoni stillati a L.16, quelli di quadrettoni fregati e rigati a L.11, quelli di quadretti pur fregati e rigati a L.8, quelli di quadretti rustici a L.7, e quelli di pietre a L.2.10. Li cavi compreso il trasporto dalla terra cioe portandosi essa terra nel vacuo del bastione di San Mauritio a L.9, e portandosi fuori negli corti per formare il spalto a L.13 il tutto per cadun trabucco, e gl'ornamenti e mettitura in opera de marmi all'estimo che ne verra fatto da due esperti ... di uno per parte con obligo d'impiegare sino ad' uno trabucco fuori di terra tutta calcina forte e dal d.o trabucco sino al piano nobile inclusivamente meta forte e meta dolce di Rivara, o di altra di ugual bonta e forza e d'ivi in su sino al finim.to tutta dolce e della piu forte d'esso luogo di Rivara o altra come sopra e d'impiegare nell'incamisata calcona Crinellata (?) e mattoni ben cotti -

Saranno detti imp.ri tenuti (come cosi promettono) di dare per tutto il mese di ottobre dell'istante anno 1675 a coperto la sala delle feste il teatro, trincotto, portico con botteghe la capella dell'accademia, e stanze di essa risguardanti verso Piazza Castello e il total finim.to delle medeme come pure delle scudarie ne due anni susseguenti 1676 e 1677 repartitamente e ne mesi proprij per travgli da cazzola

Faranno tutte le volte con la calcine forte e medesimamente li sterniti, si di quadrettoni, che di quadretti

Nella construct.ne delle sud.e fabbriche doveranno impiegare sabbia della qualita portata dall'istruzione infra tenorizzata del sig.r conte e p.o ingeg.re di S.A.R. Amedeo Castellamonte, e quivi letta e come hanno dichiarato ben da luoro impresa e non puotranno essi imp.ri anzi restara luoro esspresamente prohibito d'impiegare sabbia rossa, si in picciola che in grande quantita

Patto apposto e accordato e espressamente convenuto che caso detti capi mri imp.ri manchino di dar al coperto li corpi di fabrica promesi sopra e infra espressi fra tutto ottobre dell'anno pros.à cioe la salle delle feste, il teatro, trincotto, portico con botteghe, la capella

dell'accademia, e stanze risguardanti verso Piazza Castello patiranno la diminutione delle L.2000 ribassate dal mastro Carlo Righino

Sara il s.r patrimoniale tenuto di farli lasciare aperta la Porta del Soccorso tra li bastioni verde e di San Mauritio per l'introd.ne de materiali, com'anco di mantenerli l'acqua corrente per servitio della fabrica

In oltre li sud, i mri Ferro, Pighino, Solista e Bariffo promettono e prestano il loro consenso che il capo mastro Gio Battista Piscina puosa nelle sud.e fabriche fare tante muraglie per l'ammontare di L.5000 in contro del prezzo della demolit.ne delle case al Borgo di Po che restano a suo carico con l'obbligo pero d'alzara essa fabrica che li sara assignata per l'ammontare di d.i L.5000 dalle fondam.e sino al coperto

Saranno a carico del sig.r patrimoniale le radici e ferramenti che saranno necessarie alle pred.e fabriche e quello di medemi capi mri impresarij di metterle in opera

Si fara luoro anticipata di L.10000 d'arg.to a p.20 L'una cadun anno da compensarli pero ogni anno e a settimane [~] conto del travaglio repartitam.te e li pagam.ti si faranno di settimana in settimana a misura d'essi travagli, e delle misure che in caduna si faranno, dedotta pero la parte dell'anticipata come sovra

Si concede la reten.ne e porto d'armi di misura, viaggiando, a detti imp.ri Ferro, Pighino, Solista e Bariffo durante il tempo d'essa luoro impresa con che non s'abusino e ne diano nota all'ecc.mo Senato e al sig.r seg.ro sottos.o

E per che d.i imp.ri asseriscono haver di riserva qualche quantita di mattoni per impiegare in esse fabriche nel pnpio del'anno ven.ro e che venendoli divestiti o presi per altre fabriche di ord.e di S.A.R. puotrebbe dilongarli l'avanzam.to delle opere a coperto come restano obligati di dare nel. d.o ven.ro anno 1675 si dichiara che quando cio accadesse dovranno darne aviso al sig.r patrimoniale per saper la quantita presa, e per essa in tal caso detti imp.ri saranno scarrigati solamente e non altrimenti del travaglio che con essi si sarebbe potuto fare al quale saranno tenuti supplire nell'anno seguente

Instruttione per la fabrica della accademia, Trincotto, Teatro delle feste e scudarie

Tutte le muraglie delle sudette fabbriche s'intenderanno muraglie ordinarie di quatro corsi di pietra , d'uno di mattoni

Nelle fondamenta de tutte d.e muraglie s'impiegara forte calcina sino ad'un trabucco sopra terra da ivi sino al piano nobile si metterà meta forte e meta dolce di Rivara o altro luogo che sia approvata, e dal d.o piano sino al coperto puotra essere tutta dolce e nelle volte e sterniti di qualsiasi sorte s'impiegara sempre calcina forte

Le sabbie saranno di cava grise e ben purgate dalla terra ne puotranno usare in modo alcuna sabbia rossa

Le grossezze delle muraglie saranno luoro date dall'ingeg.re c'havera la direttione di d.e fabbriche, e per quelle chr li saranno ordinati tutti di mattoni se li fara rag.ne nella misura conforme all'ordine del duca Vittorio Amedeo di glo. mem. qual dovra osservarsi in'ogni misura di d.e fabbriche

Le terre de cavi, delle cantine e fondamenta si porteranno fuori del fosso del bastione San Maurizio per formare l'argine o verà nella Piazza di d.o Bastione

Metterano in opera le radici chiavi di ferro da fabrica e vive (?) che li saranno somministrate per parte del sig.r patrimoniale

Faranno tutte le stabilitura con sabbia di Dora ben soplie e pulite e le quadrature delle porte e delle finestre ben a piranto (?) e proffilate

Faranno li sterniti come li saranno ordinati cioe di quadretti e quadrettoni ben cotti e stagionati rustici e polliti

Tutti gl'ornamenti delle porte, finestre, architravi, fornelli, e cornicioni si pagaranno all'estimo di due esperti alligendi uno per parte Torino li 28 ottobre 1674 - sottos.ta Amedeo Castellamonte

Il che tutto e quanto resta sovra espresso convenuto e accordato li sudetti capi mri Martino Ferro, Fran.co Pighino, Don.to Solista, e Fran.co Bariffo compagni imp.ri caduno in solidum e per il tutto con le renoncie alli beneficij di divisione escissione e ordine come sopra hanno promesso, e si sono sottomessi, promettono e si sotto-

mettono per luoro e per cadun di luoro heredi e successori d'attender e intieram.te osservare e far osservare sotto obligo di luoro respetivam.te persone e beni pnti e futuri con la clausula del costituito amplissimo possessorio d'essi renontie e altre clausule e cautelle in forma camerale mediante luoro giuramento prestato toccate corporal.e le scritture nelle mani di me consig.re e seg.ro di stato e di finanze di S.A.R. sottos.o e per maggior cautella tanto dell'anticipata che come sopra sele fara in cadun anno quanto per l'intiera osservanza di tutto il contenuto nel presente contratto hanno dato e presentato danno e presentanno in sigurta m. Tomaso del fu Michele Filippone di questa citta pnte, caventi, fideinbente, e se principal debitore e osservatore di quanto sovra contenente con le renontie all'epistola del Dino Adriano alle nove e vecchie constitut.ne e ad'ogni altro beneficio e privileggio a favore delle sigurta introdotto sotto obligo di sua persona, e beni presenti e d'avenire. Con la promessa clausula del costituito ampl.mo possessorio d'essi renontie e altre clausule e cautelle pur in forma camerale mediante anche suo giuram.to prestato toccate come sovra le scritture nelle mani di me predetto e infrascritto consig.re e seg.ro.

Qual sigurta li capi mri Martino Ferro, Pighino, Solista, e Bariffo cad.o in solidum e per il tutto con le pred.e renontie e altre clausule e cautelle pur in forma camerale mediante anche loro giuram.to prestato toccate come sovra le scritture nelle mani di me consig.re e sec.ro ... e infrascritto reiteramente hanno promesso e promettano di tener rillevato, indenne e illeso dal carico della pnte fideissione sotto obligo di luoro persone e beni presenti e futuri e con la premessa clausula del costituito ampl.mo possessorio d'essi e altre clausule e cautelle in forma camerale

Presente il auditor e patrimoniale generale Marelli e acetante per S.A.R. a buon conto e a riserva di maggior cautione se sia di bisogno. Di che tutto d.o ecc.mo consiglio delle finanze ne ha concesso e concede Testim.i Dati in Torino li 20 ottobre 1674

Segue il tenor del biglietto di S.A.R. sovramentionato

Il duca di Savoia Principe di Piemonte Re di Cipro Consiglio delle n.re finanze. Si come l'oblatione che intendiamo haver fatta avanti di voi li capi mri Martino Ferro, Fran.co Pighino, Donato Solista, e Franc.o Bariffo di carigarsi dalle fabriche della

Accademia, portico con botteghe, dalle delle feste, teatro trincotto capella di d.a Accademia, e scuderi per darle al coperto cioe la sala delle feste, il teatro, trincotto, portico con botteghe, la capella e stanze risguardanti verso Piazza Castello nell'anno ven.ro 1675 e il resto sino al finimento del tutto nelle anni 1676 e 1677 e di n.ro gradim.to cosi accettandola vi mandiamo di fargliene il deliberamento omnese le formalita degl'incanti e ogni altra da quali ni dispensiamo Tanto ...e n.ro sig.re vi conservi, Torino li 4 ottobre 1674

Le muraglie incamisate de mattoni a L.16 cadun trabucco, e quelle che saranno tutto di mattoni a L.16.15; le muraglie ordinarie di quatro corsi di pietra e uno di mattoni a L.14.15; le stabiliture ben fatte a L.3; li sterniti di quadrettoni stillati a L.16, quelli di quadrettoni fregati e rigati a L.11, li rustici a L.7, quelli di quadretti fregati e rigati a L.8, e quelli di pietra a L.2.10

Li cavi di terra col trasporto di essa nel bastione di San Mauritio a L.9; med.mi cavi col trasporto negli horti fuori per formare il spalto a L.13; ornam.ti e mettitura in opera di marmi all'estimo che ne verra fatto.

fim.o Carlo Emanuel, sigill.o e sottos.o Giordano intitolato al di fuori al consiglio delle n.re finanze -

Per d.o ill.mo e ecc.mo consiglio. sigill.o e sottos.o manualm.te
Buonfiglio

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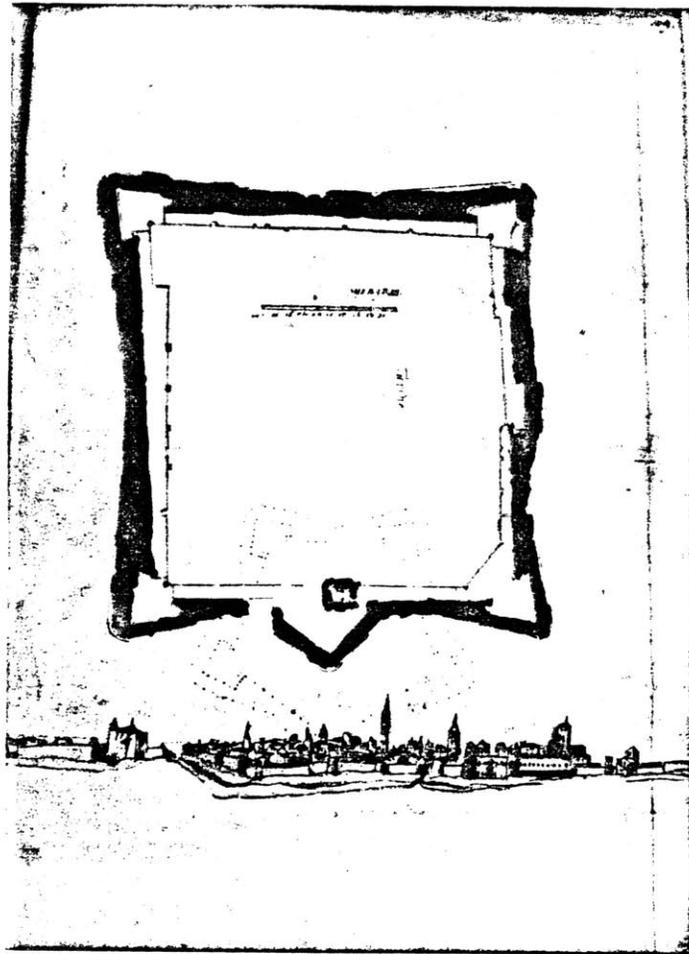
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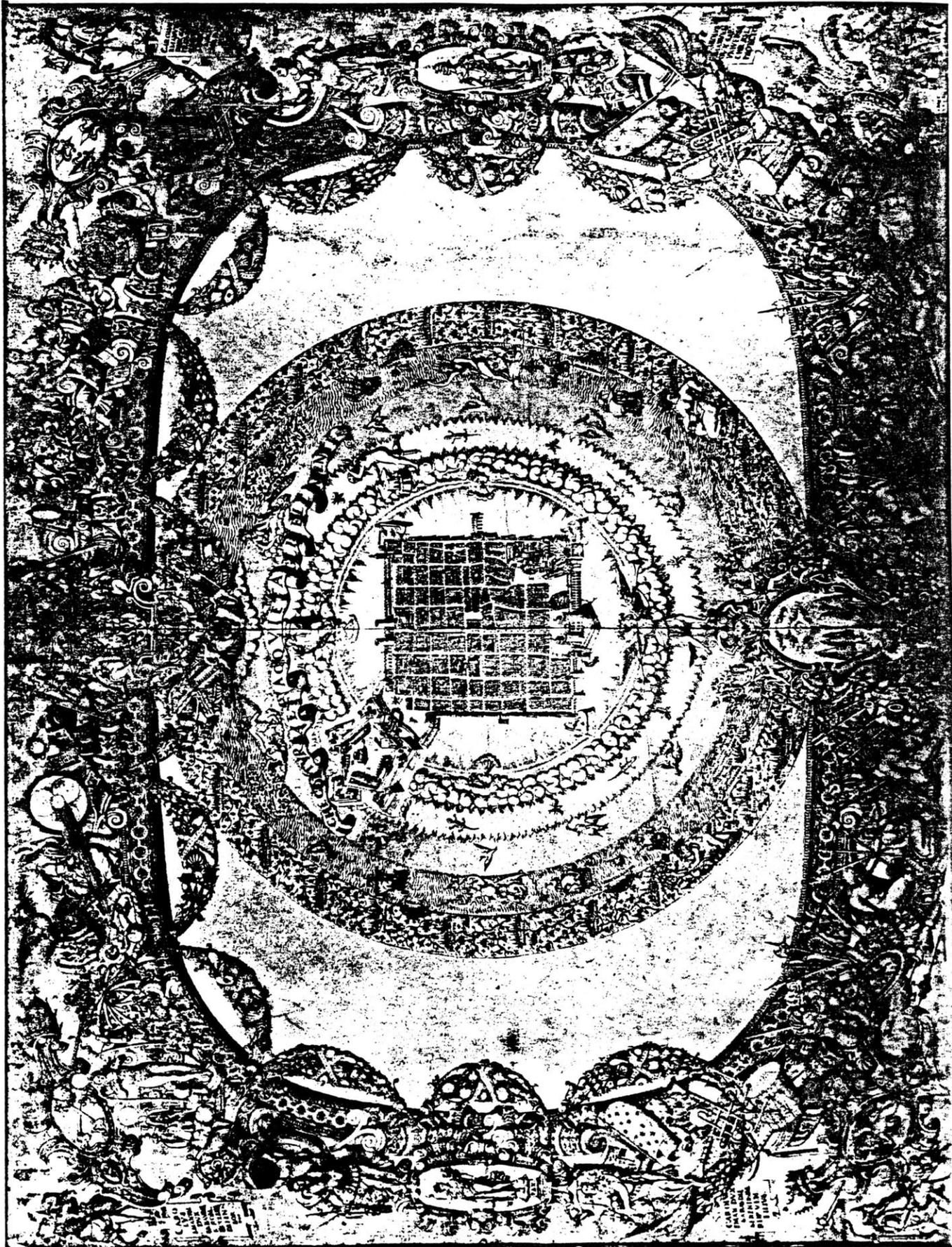
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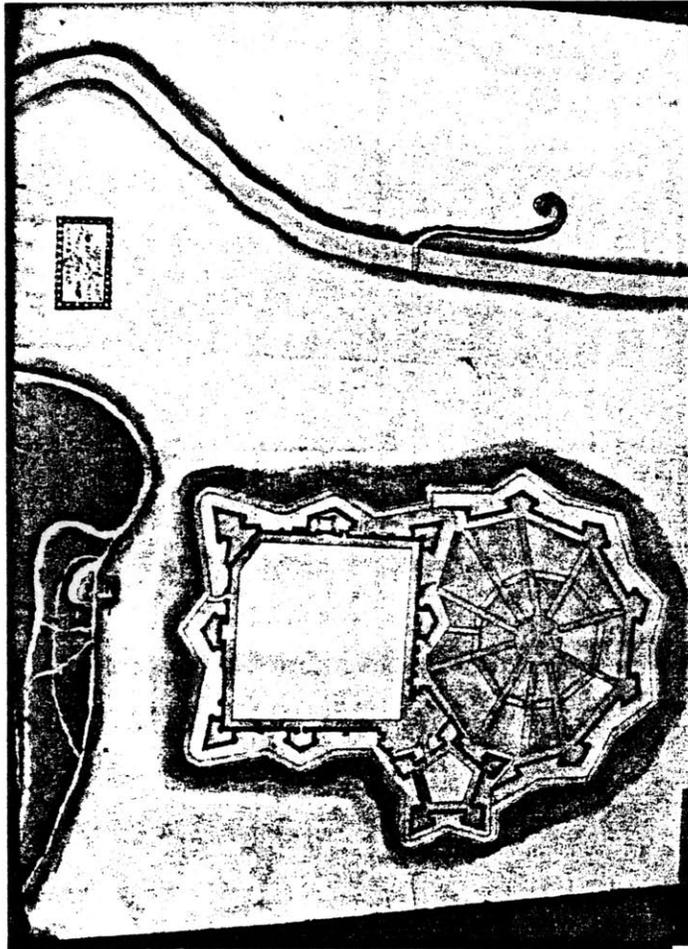
THE PLATES



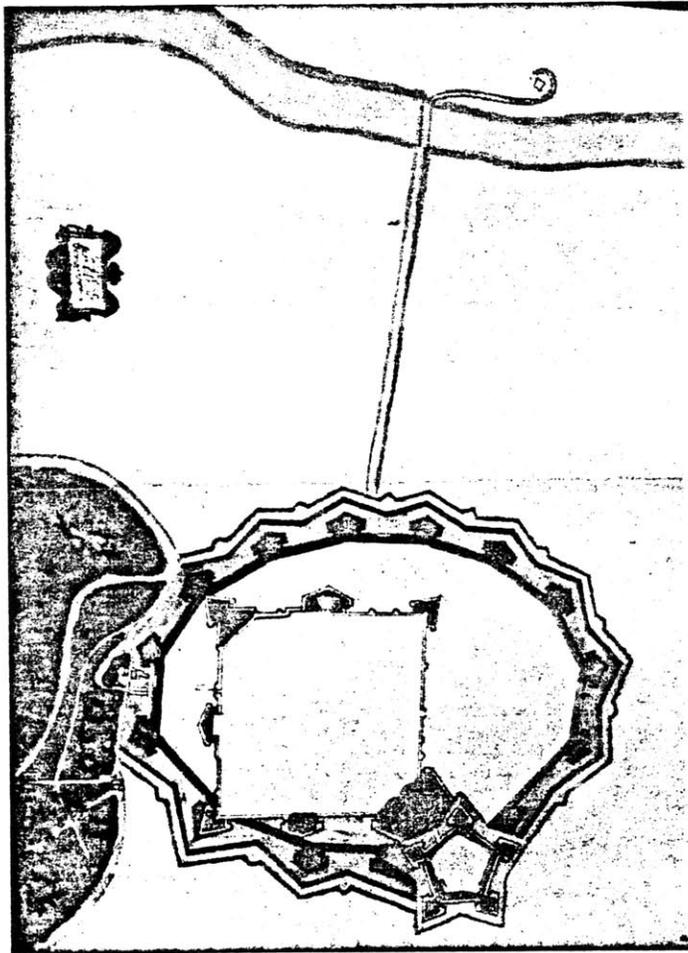
1. Plan of Turin and view from east, AST.



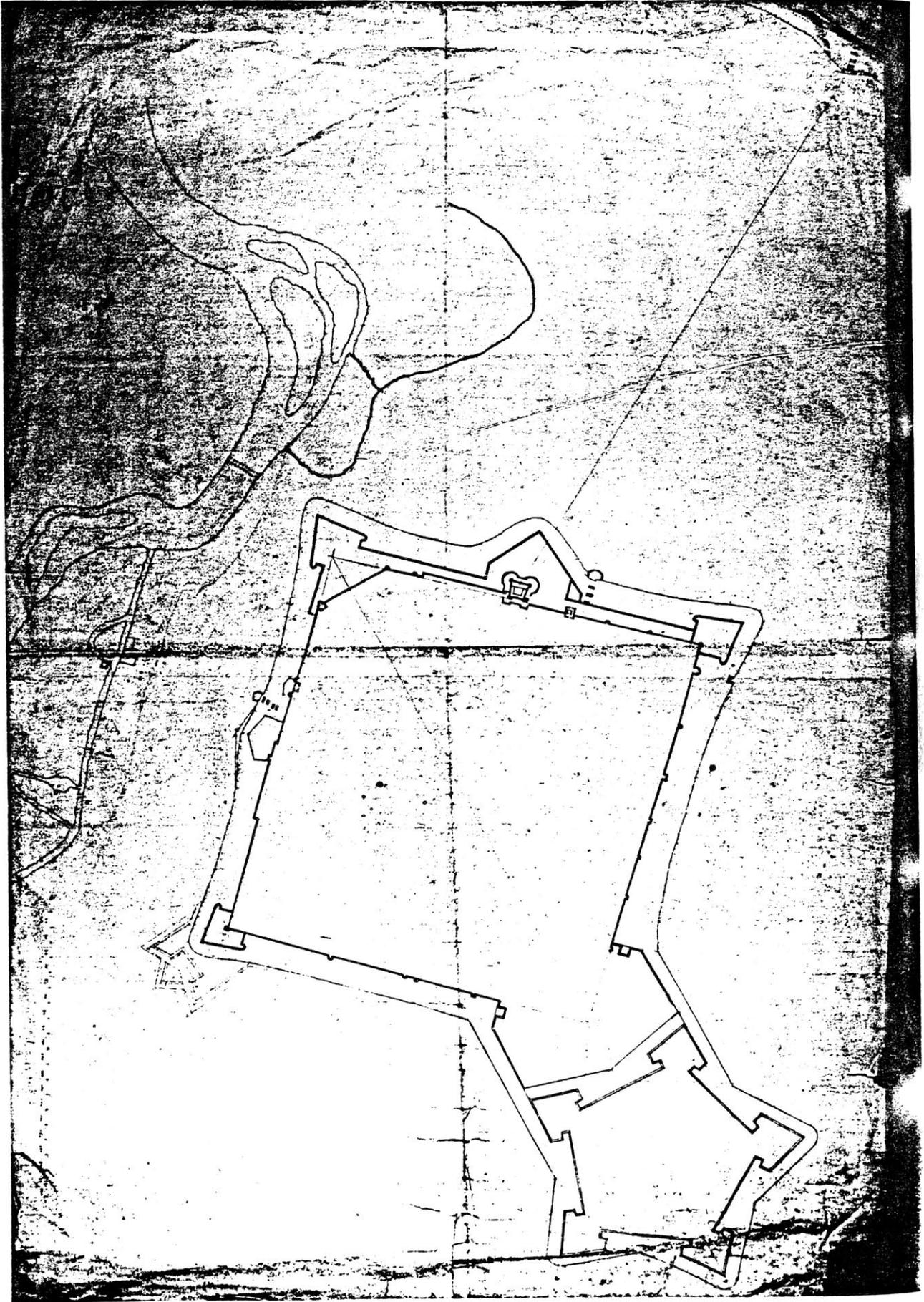
2. View of Turin, 1583, Richettino and Caracha, AST.



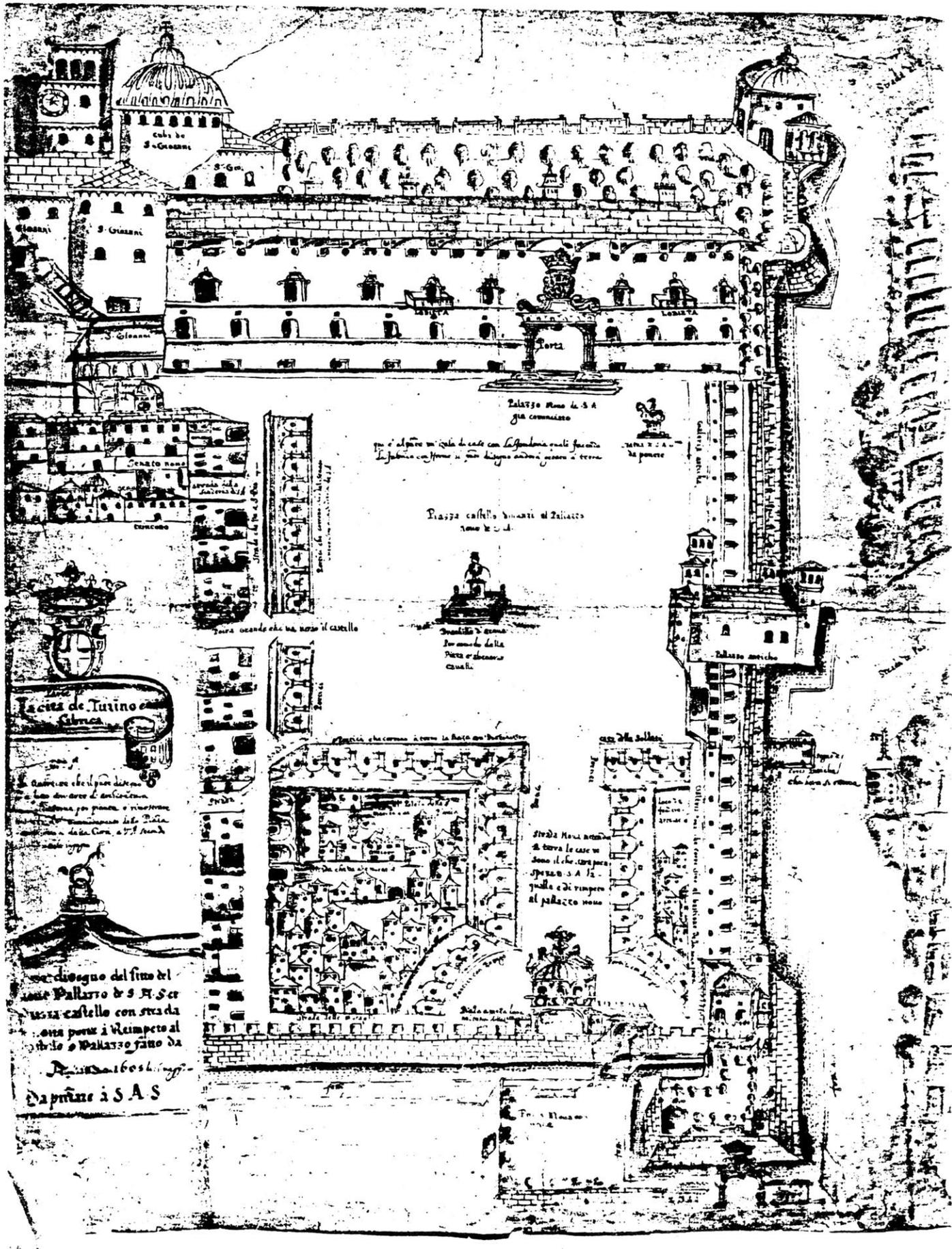
3. Plan of Turin with circular enlargement, V.Vitozzi, AST.



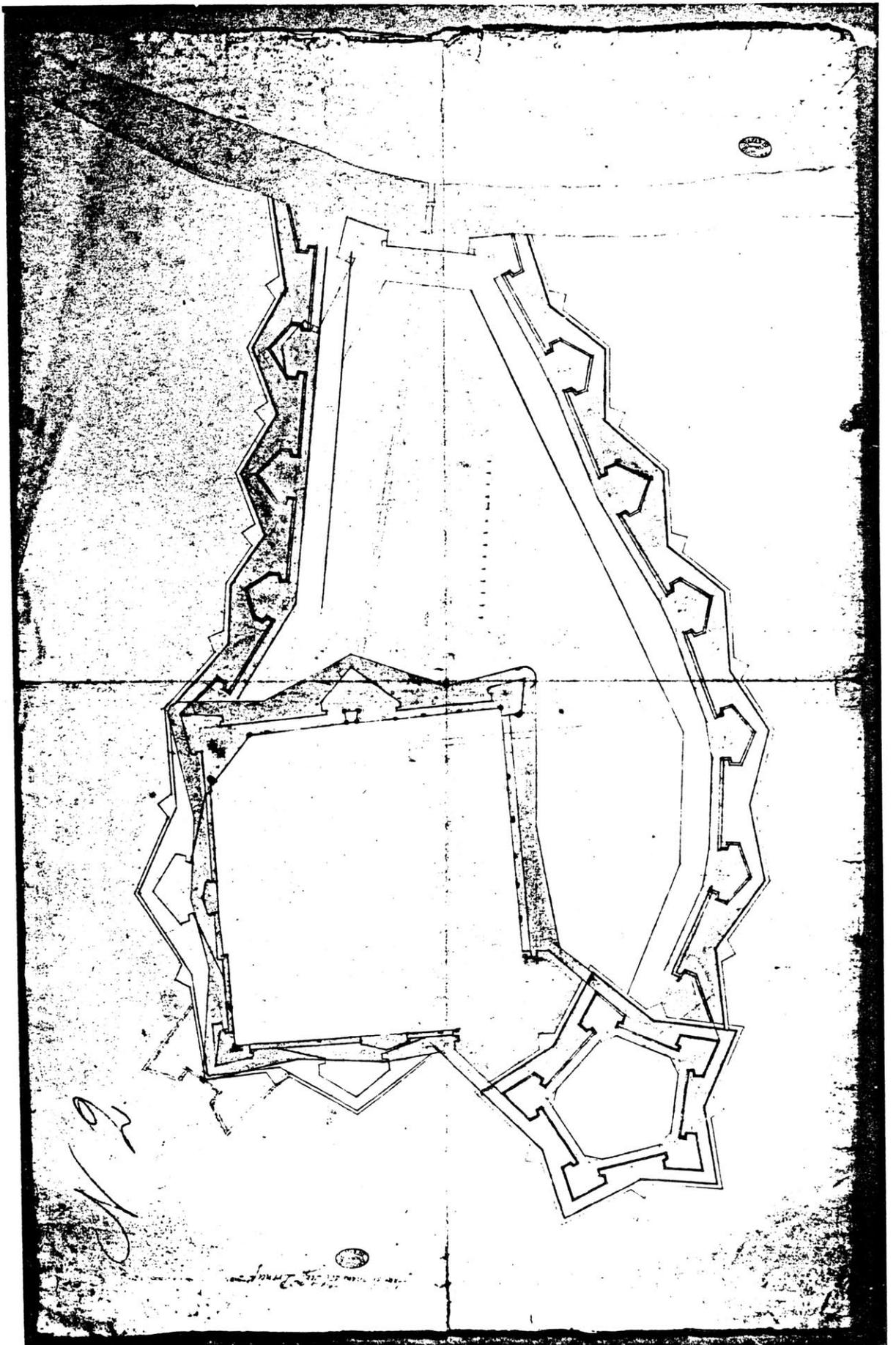
4. Plan of Turin with oval enlargement, V.Vitozzi, AST.



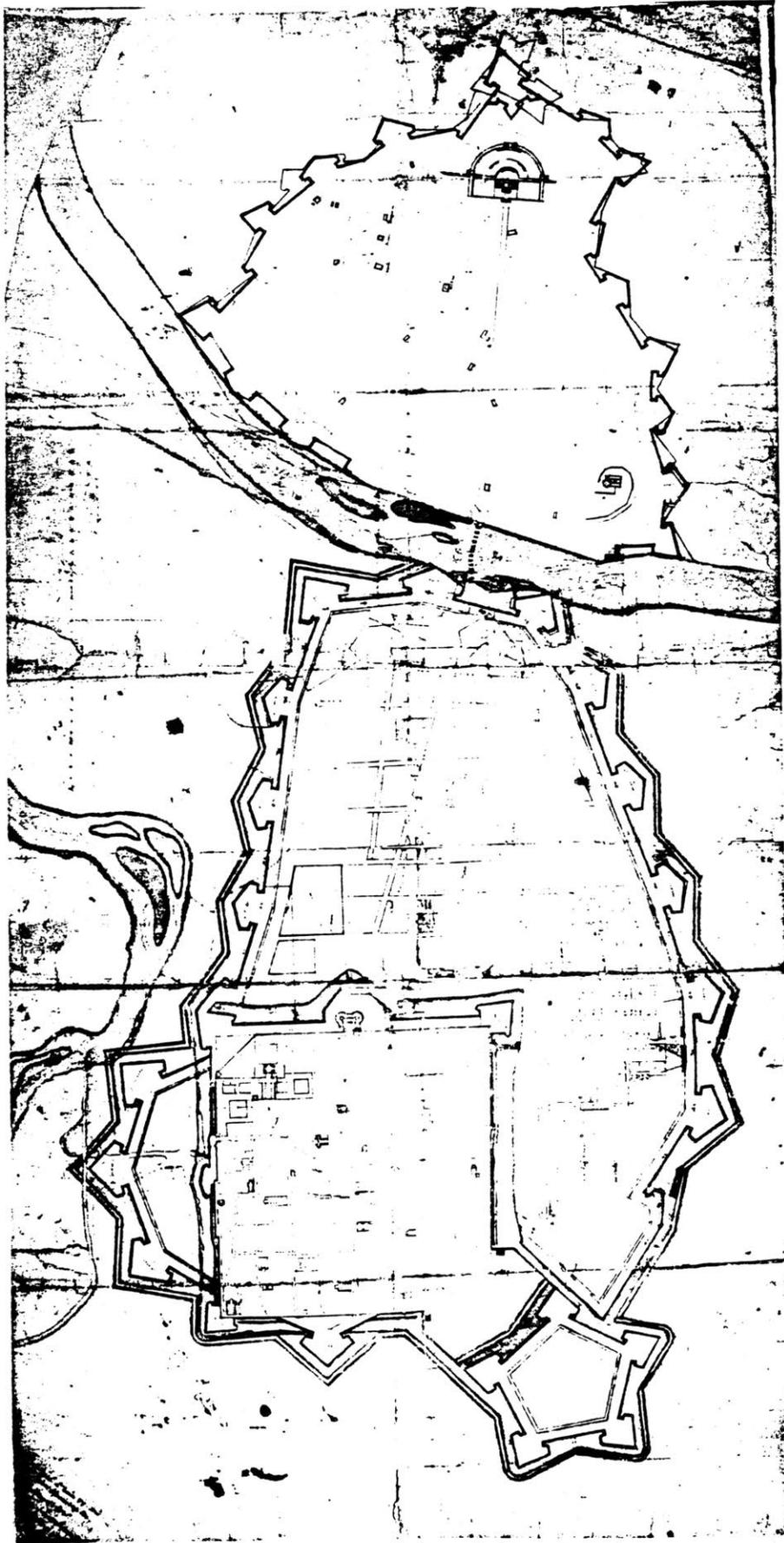
5. Template plan of Turin, AST.



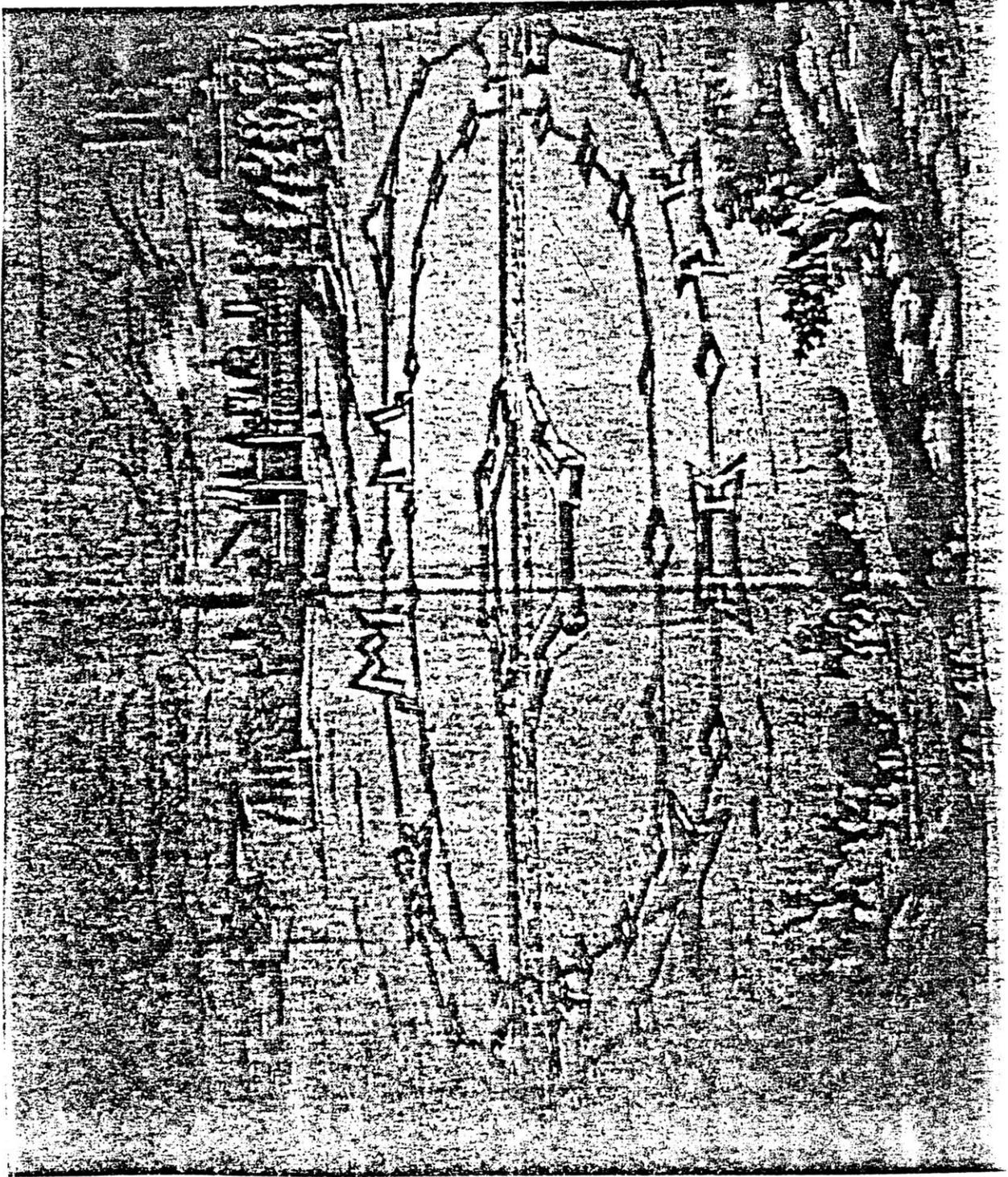
6. View of Piazza Castello, 1605, Monsa, ASC.



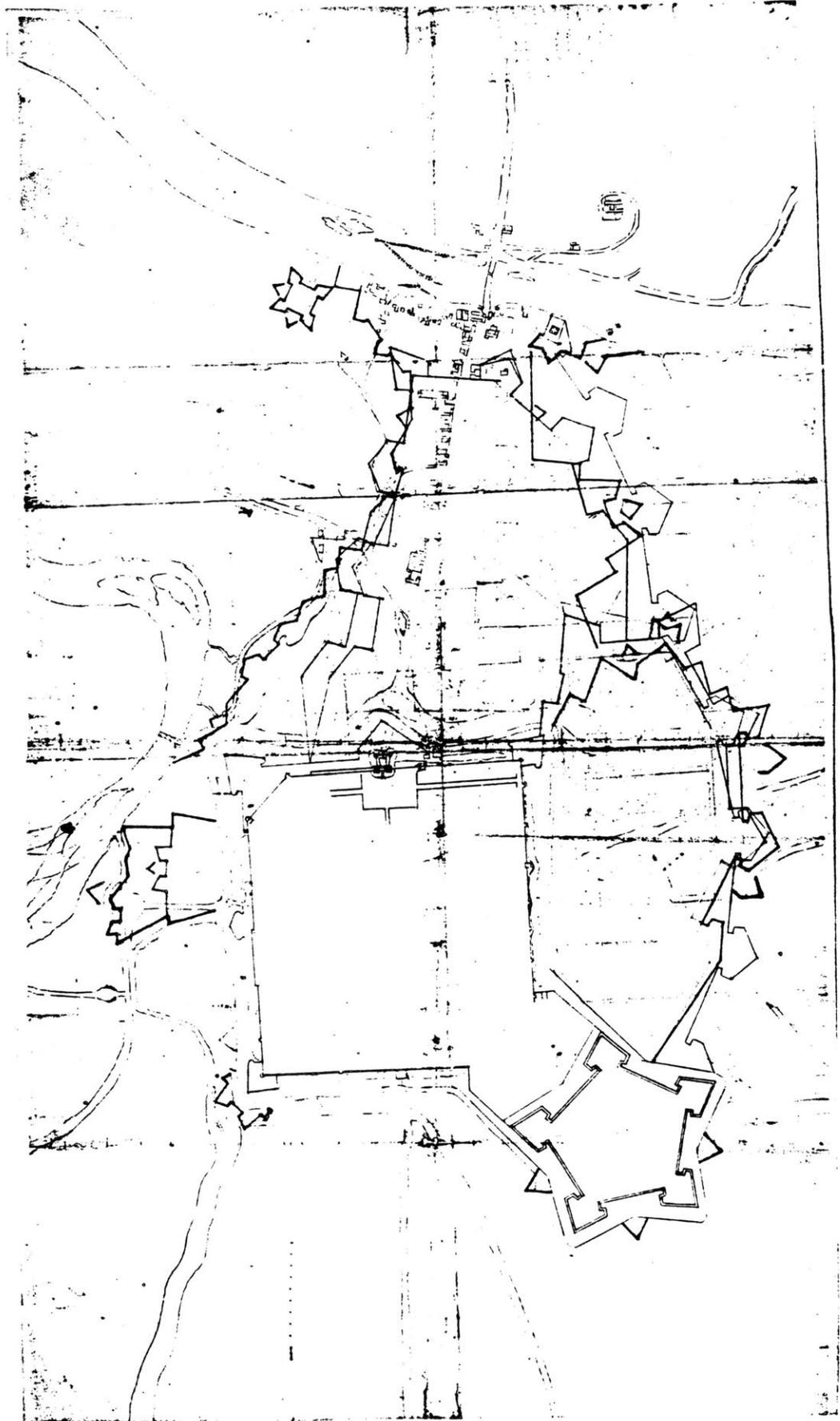
7. Autograph plan with expansion proposal, Carlo Emanuele I, AST.



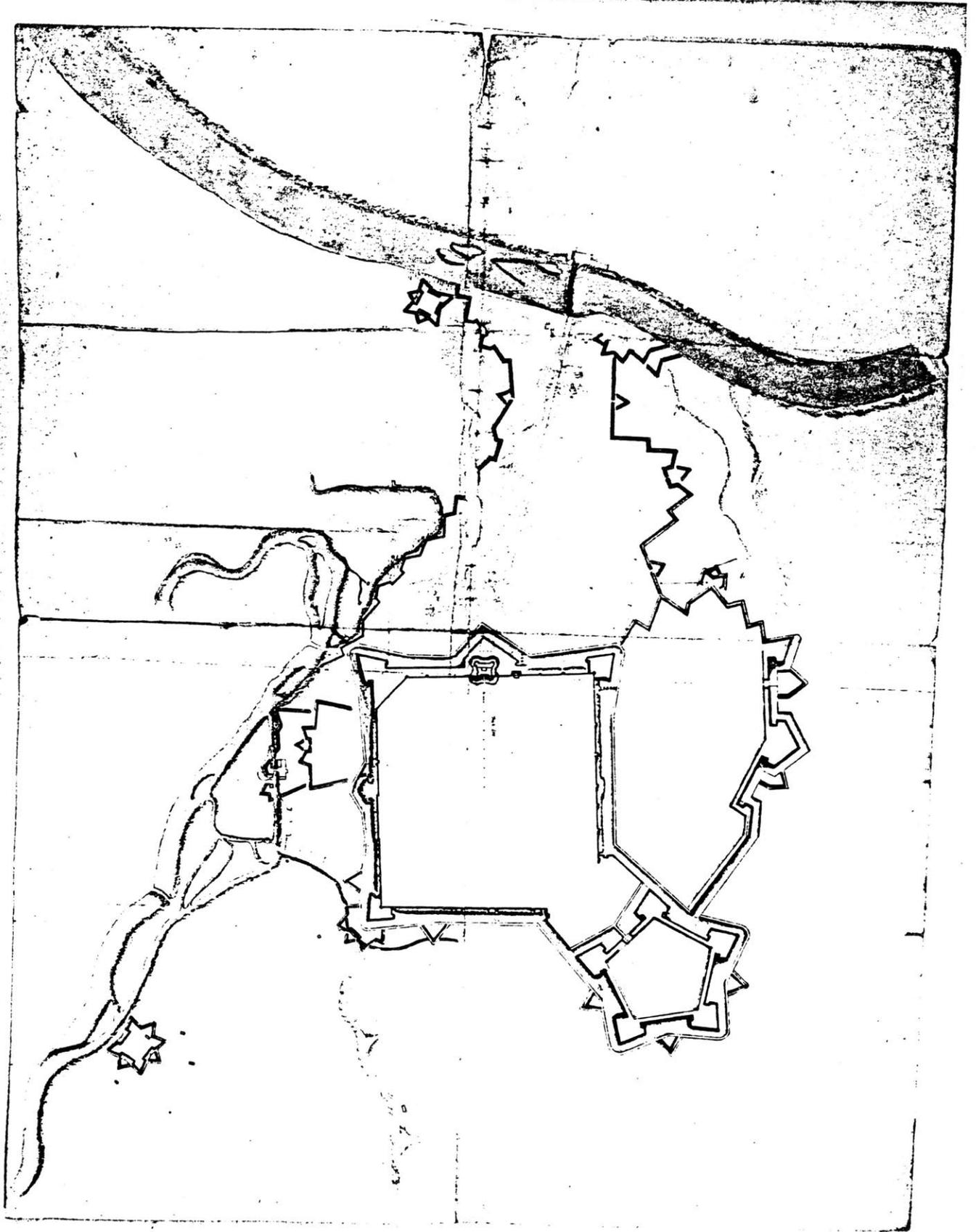
8. Plan of expansion proposal with street grid, AST.



9. Fortification project with plan of Turin, Antoine de Ville.



10. Sketch study plan of Citta Nuova, AST.



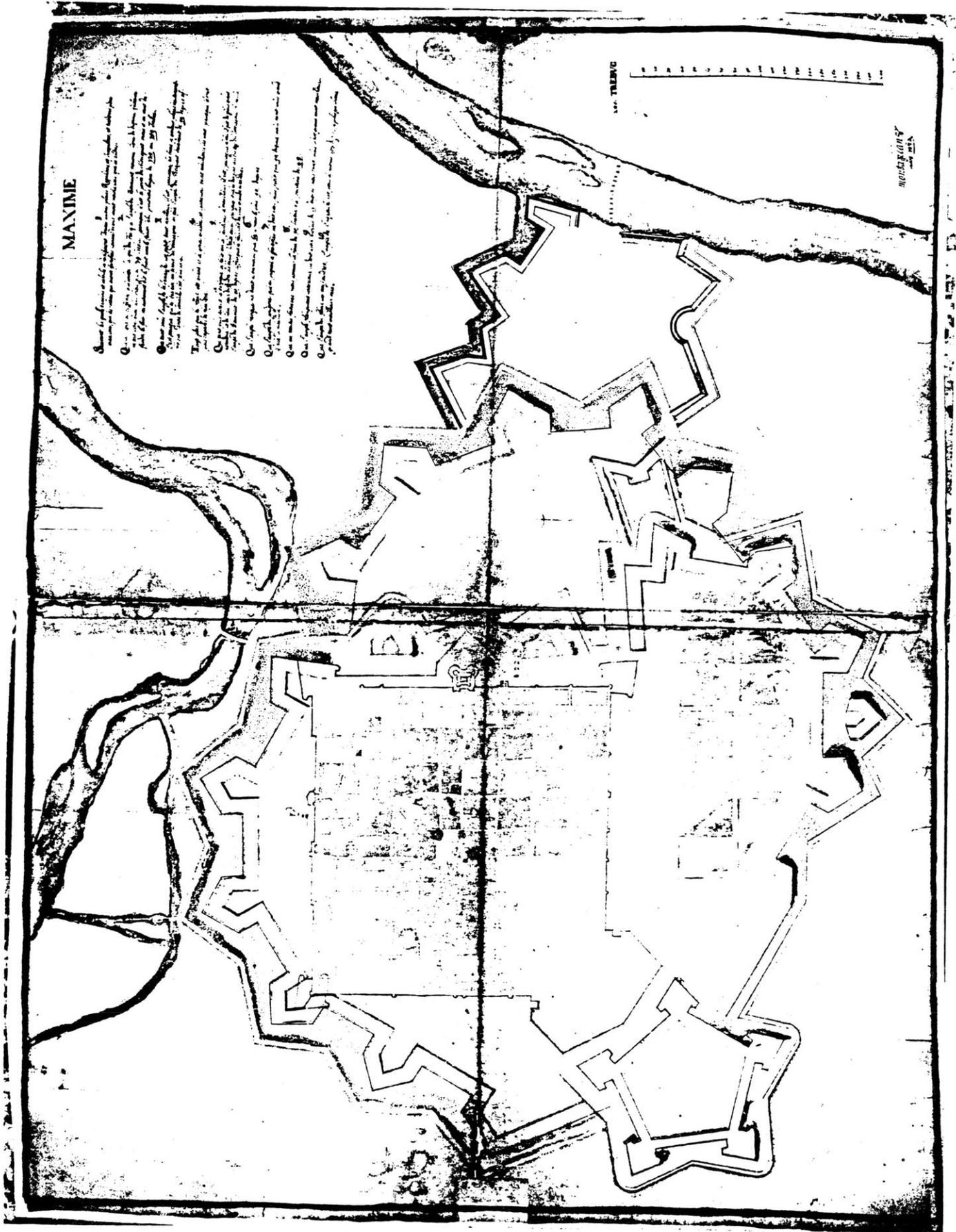
11. Presentation plan of Citta Nuova, AST.



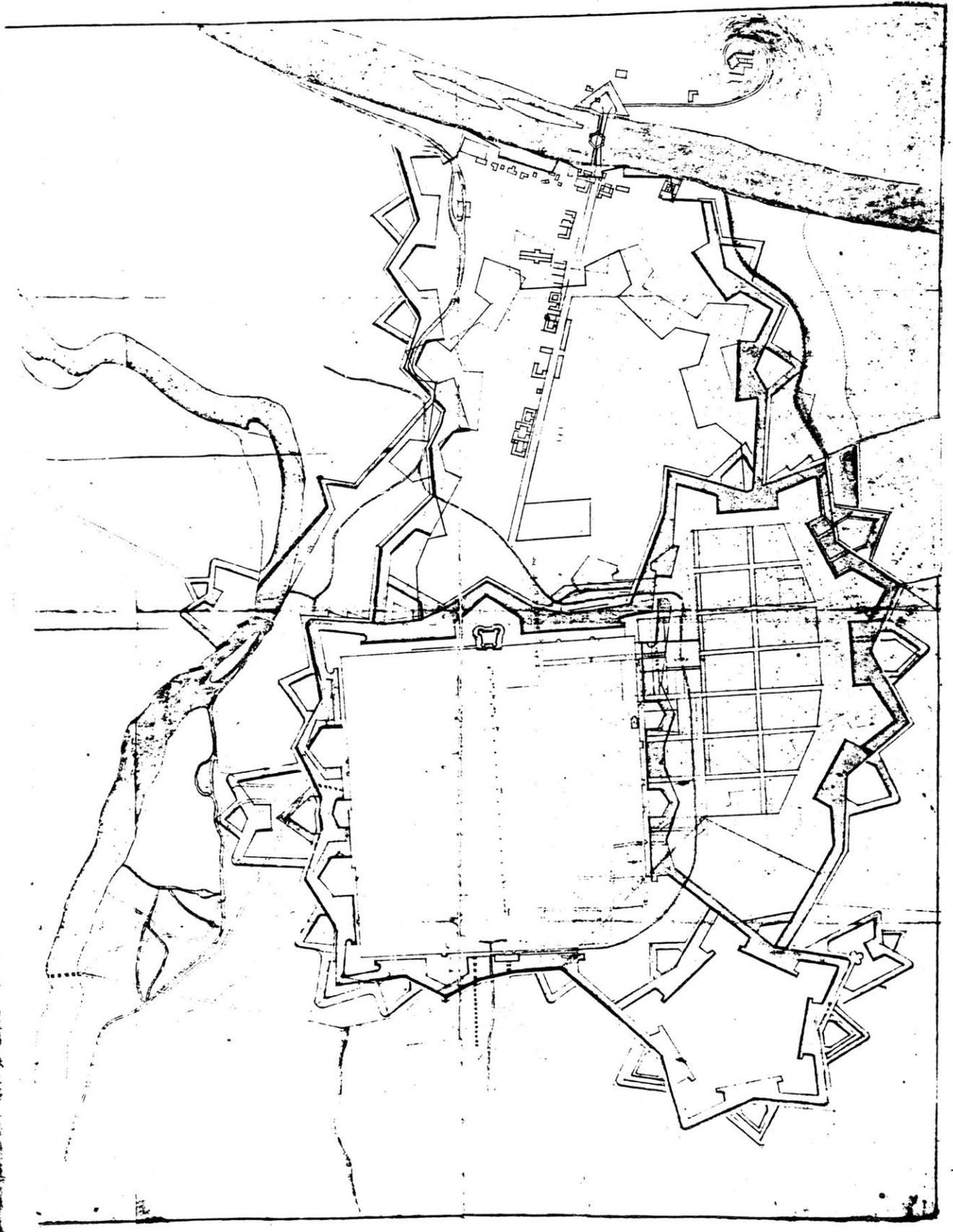
12. View of Turin, BN, Estampes.



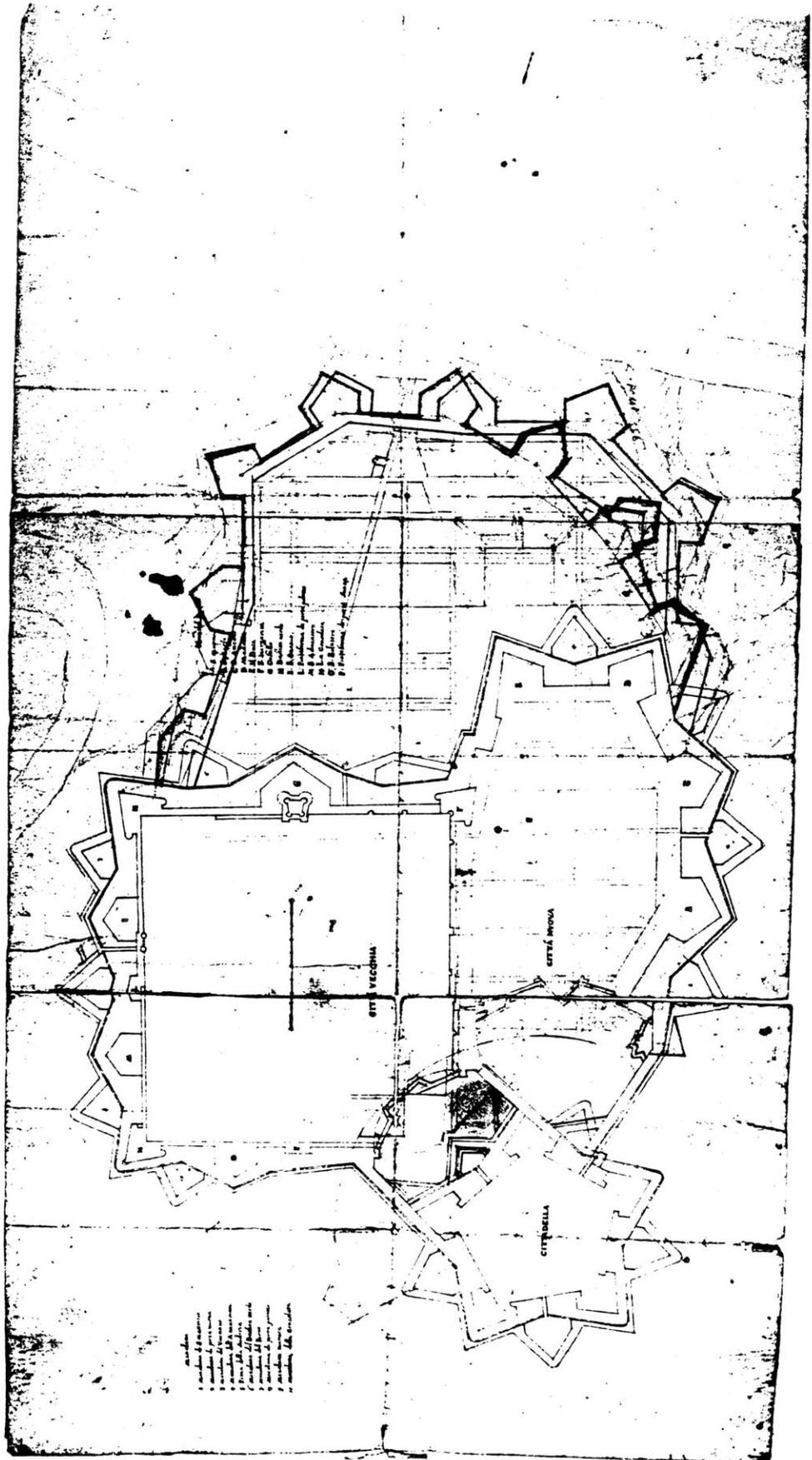
13. View of Turin, G.Boetto, ASC.



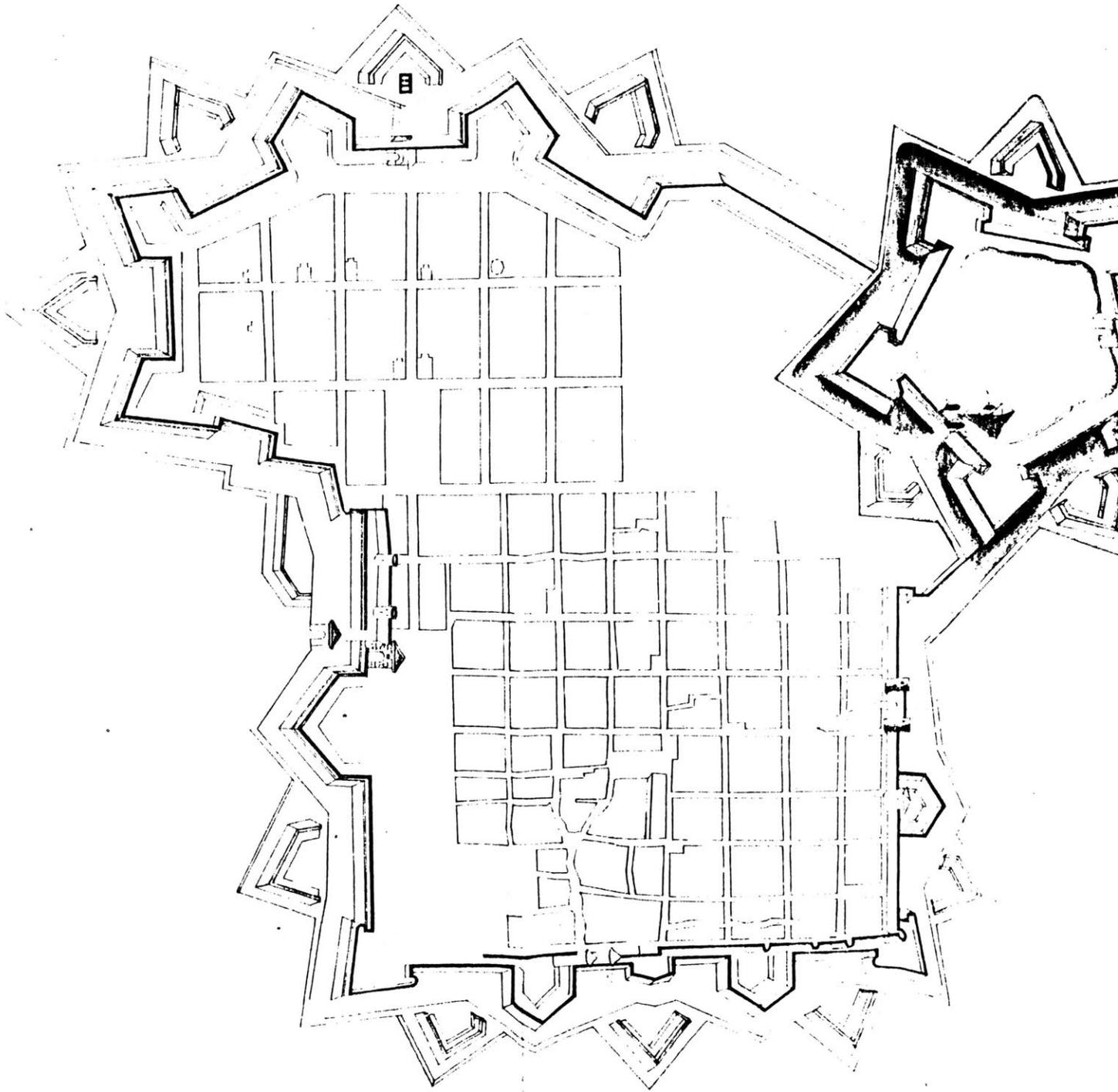
14. Plan of expansion proposal, 1632, Montafilans, AST.

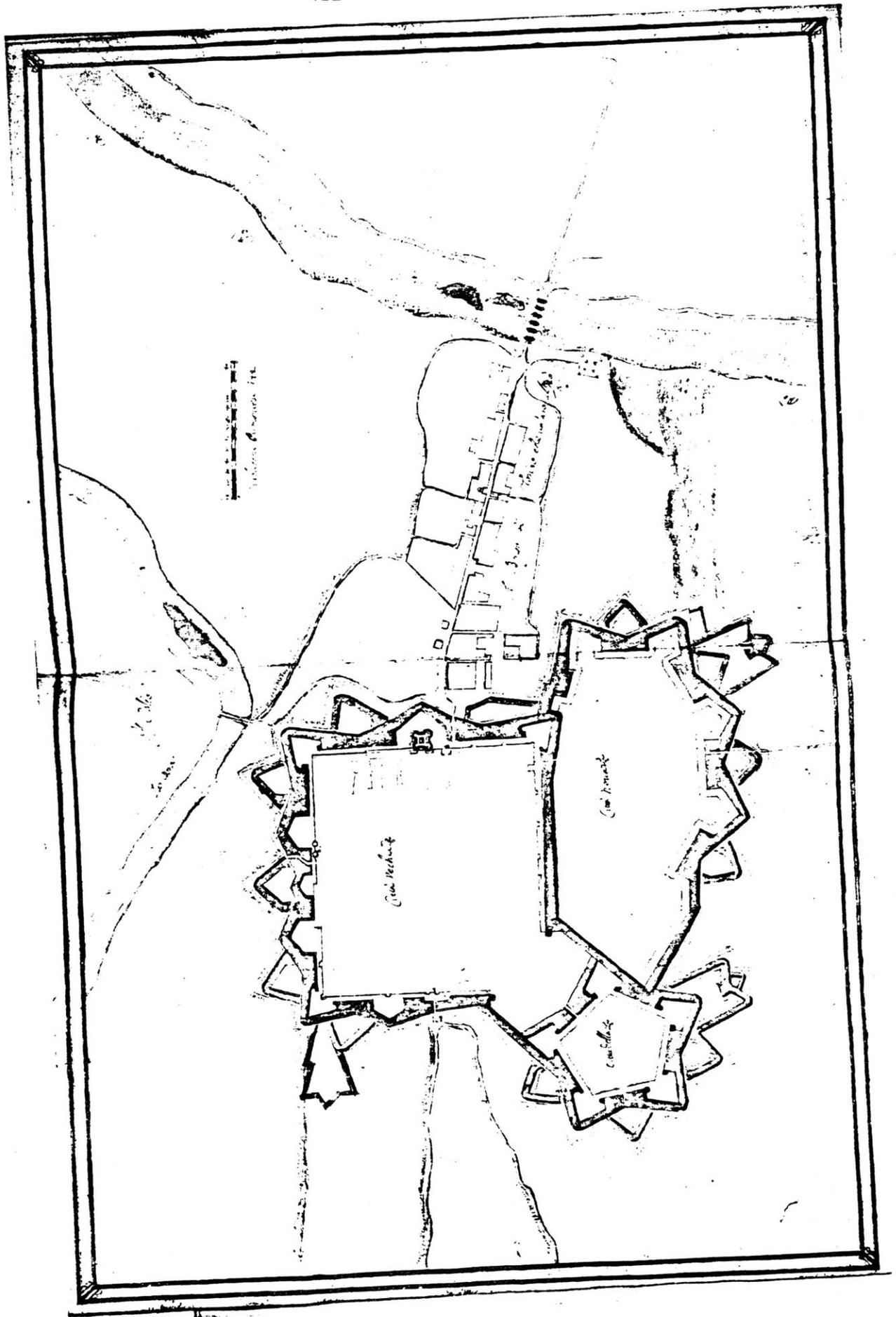


15. Citta Nuova plan with Piazza Reale, BN, Estampes.

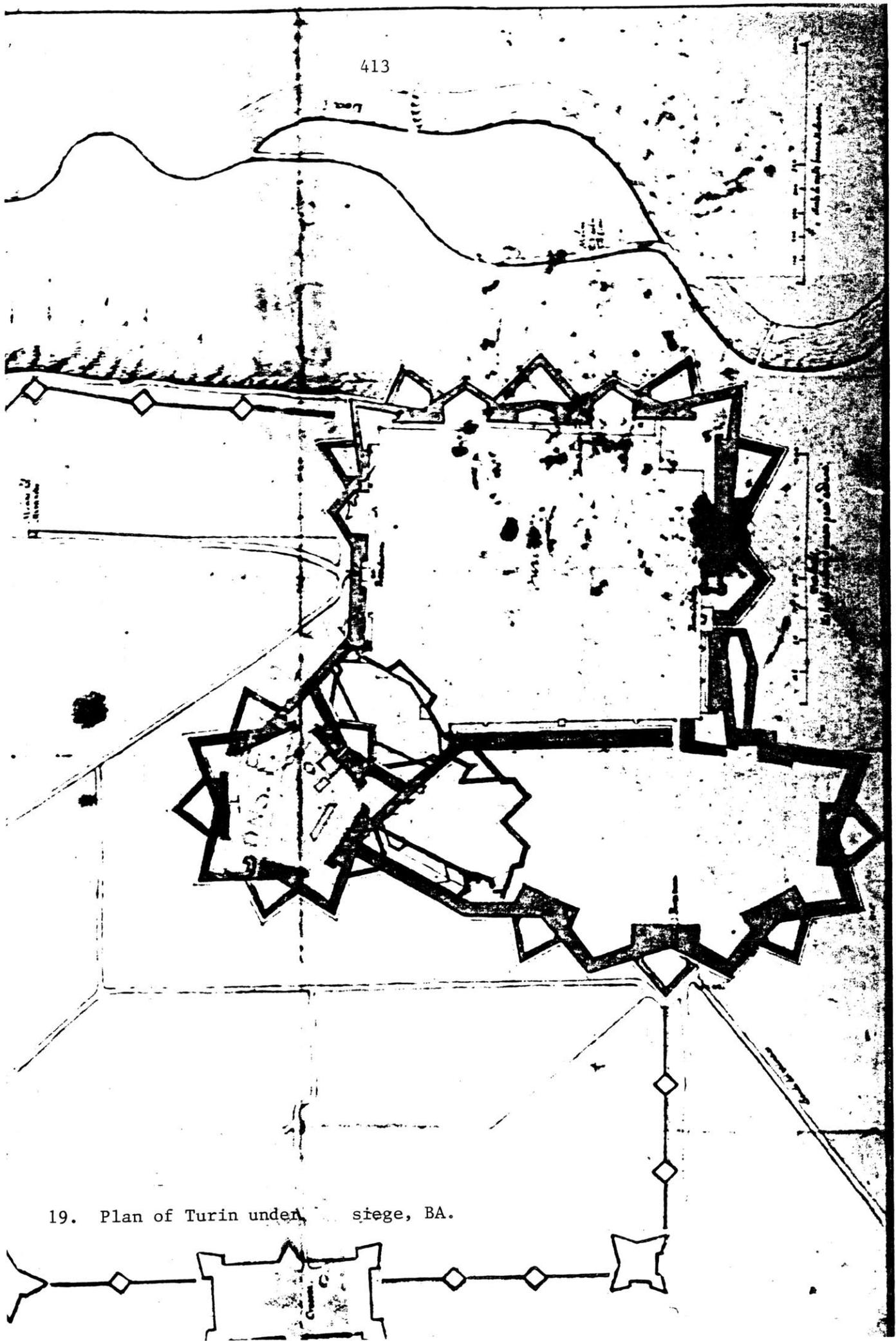


16. Post-Civil war expansion plan, AST.

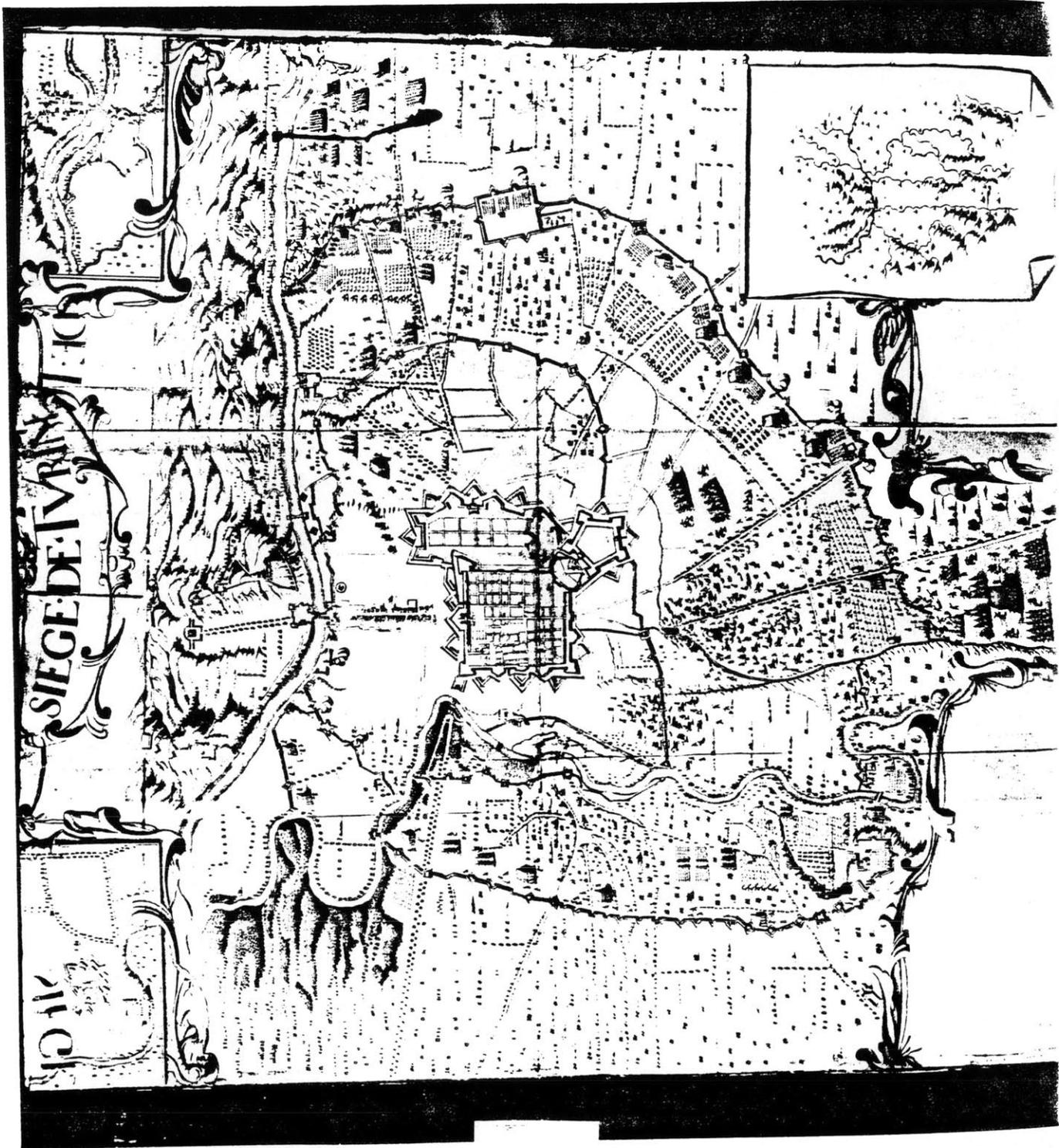




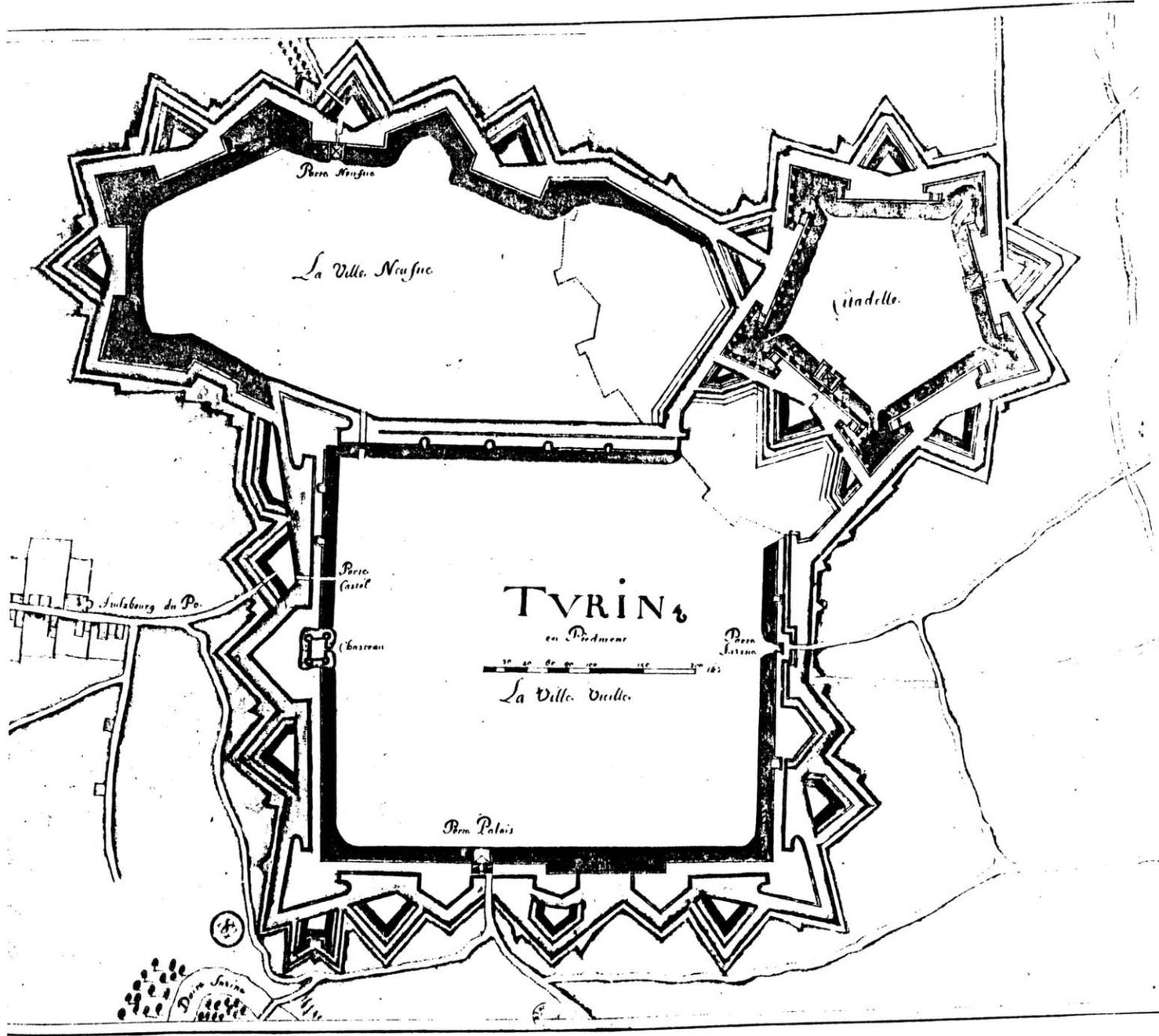
18. Plan of Citta Nuova and Citta Vecchia, BR.



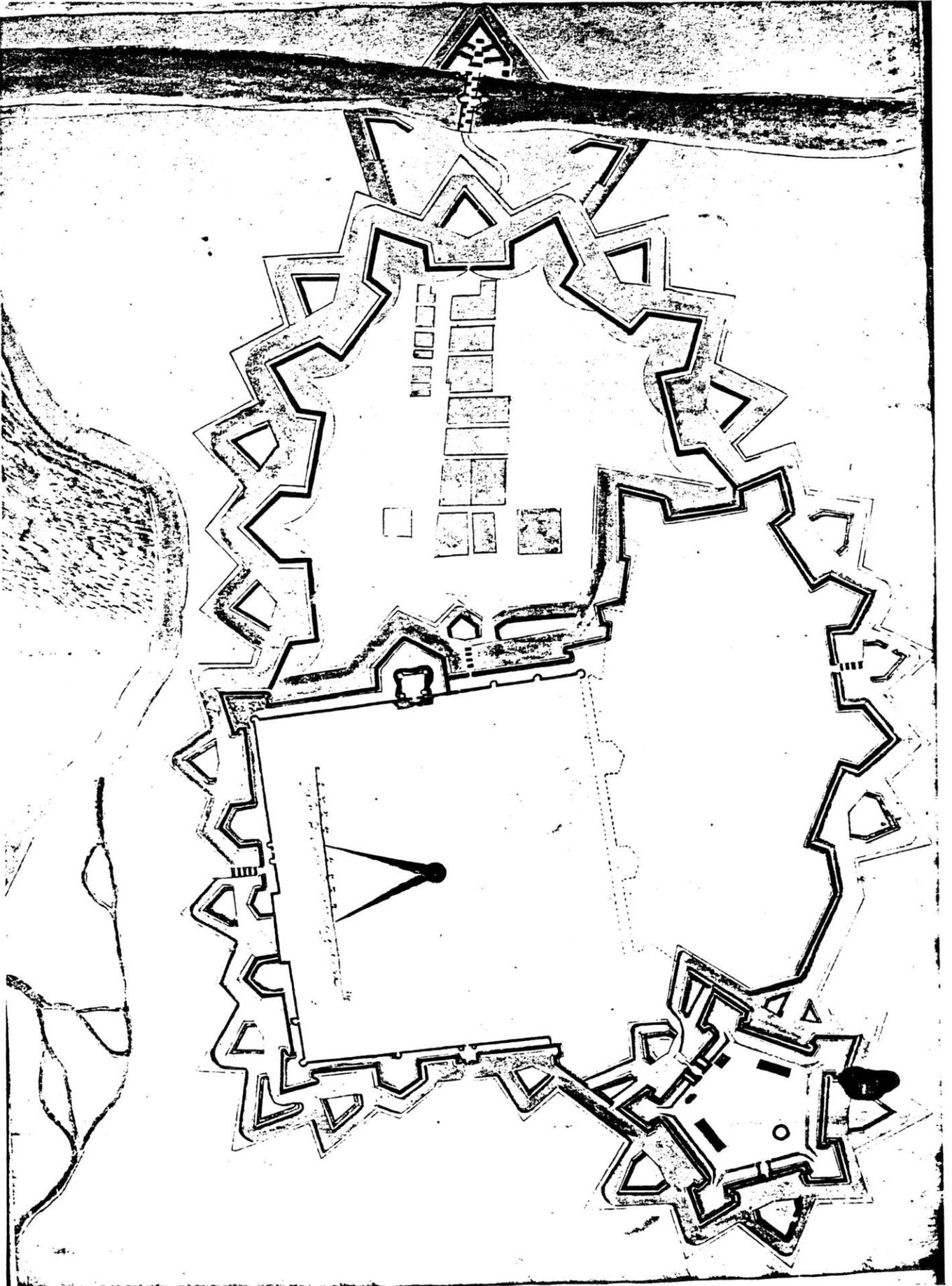
19. Plan of Turin under siege, BA.



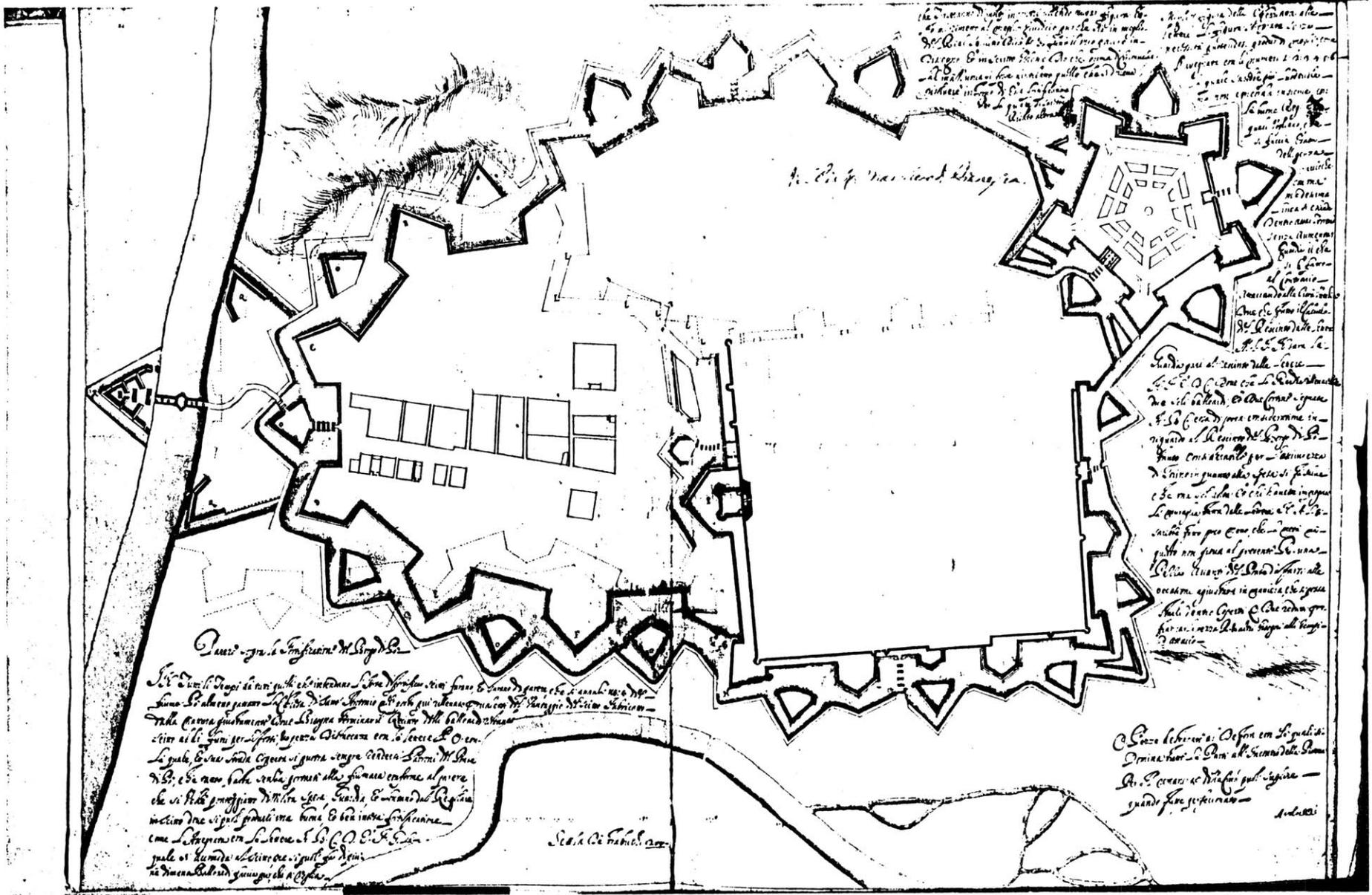
20. Plan of the siege of Turin, BN, Estampes.

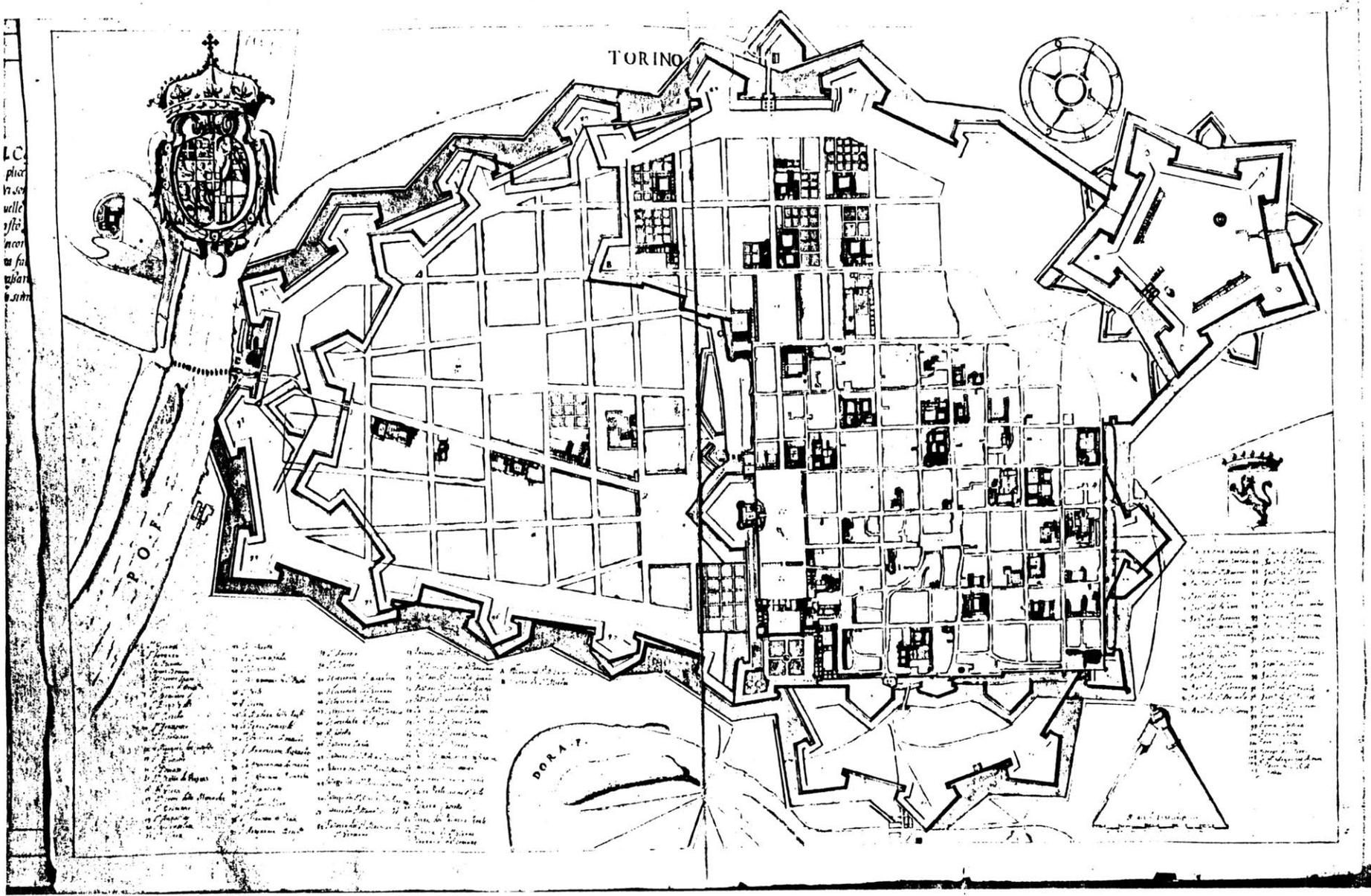


21. Plan of expanded fortifications, BN, Estampes.

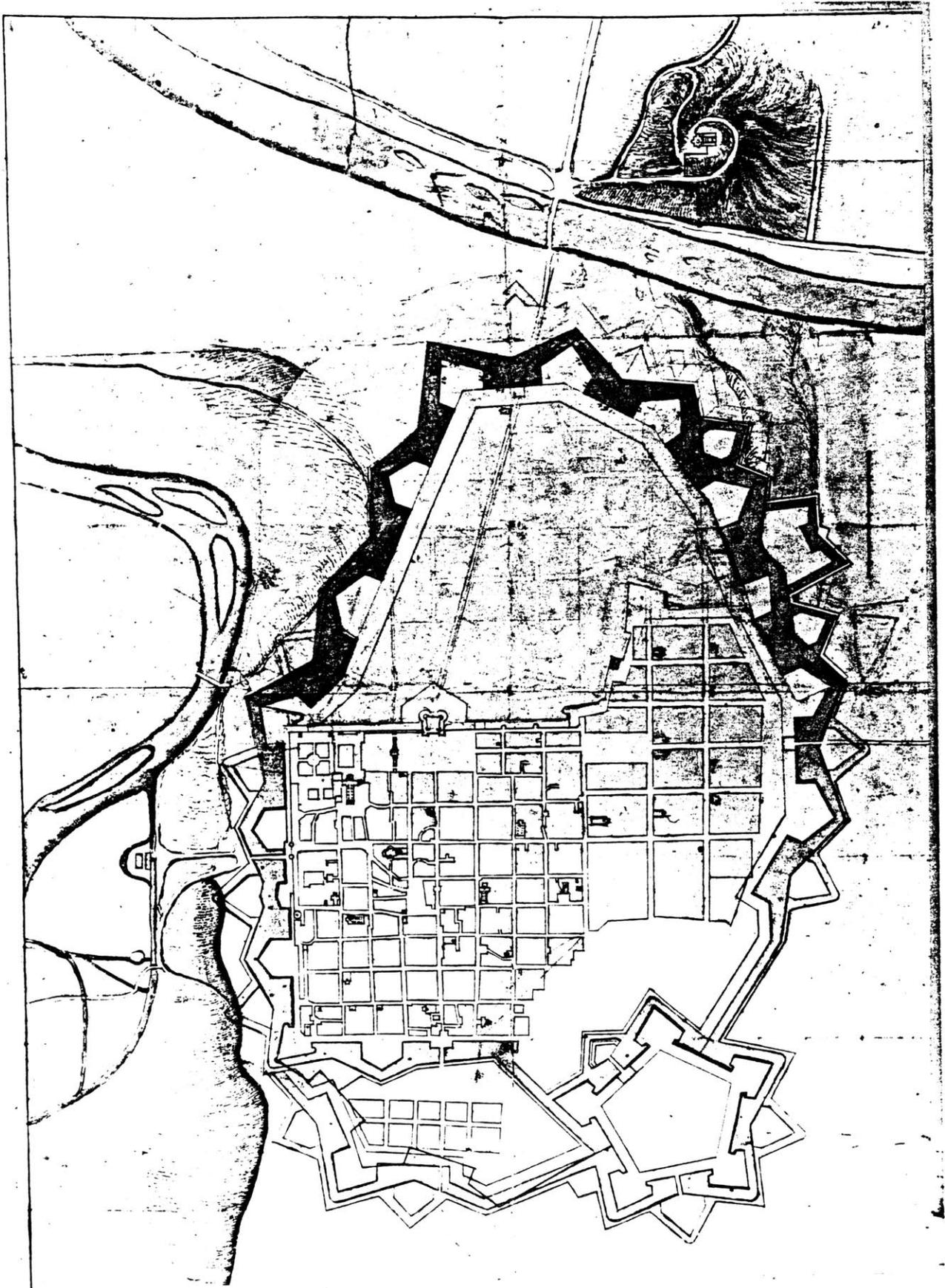


22. Compass plan of Turin, BR.

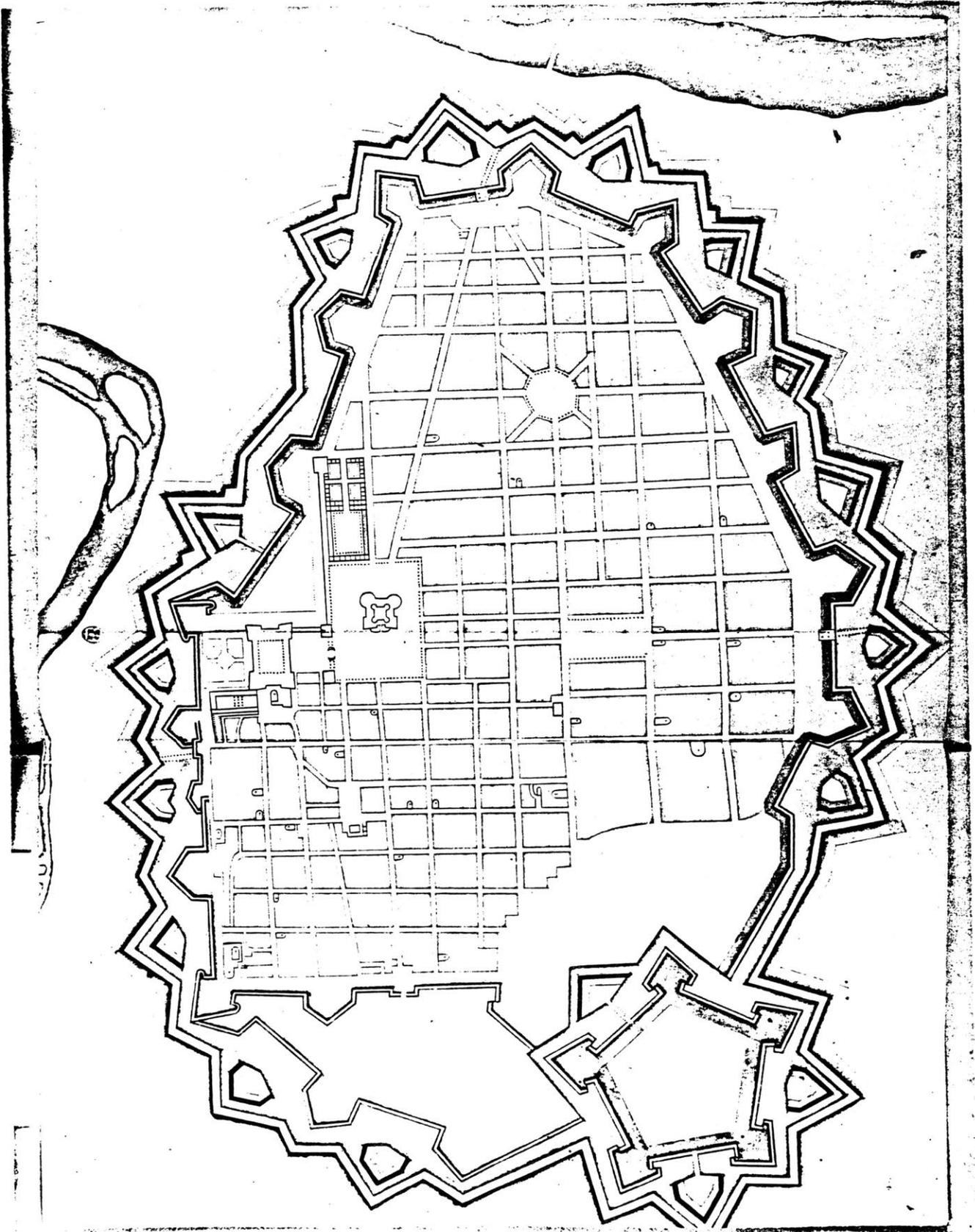




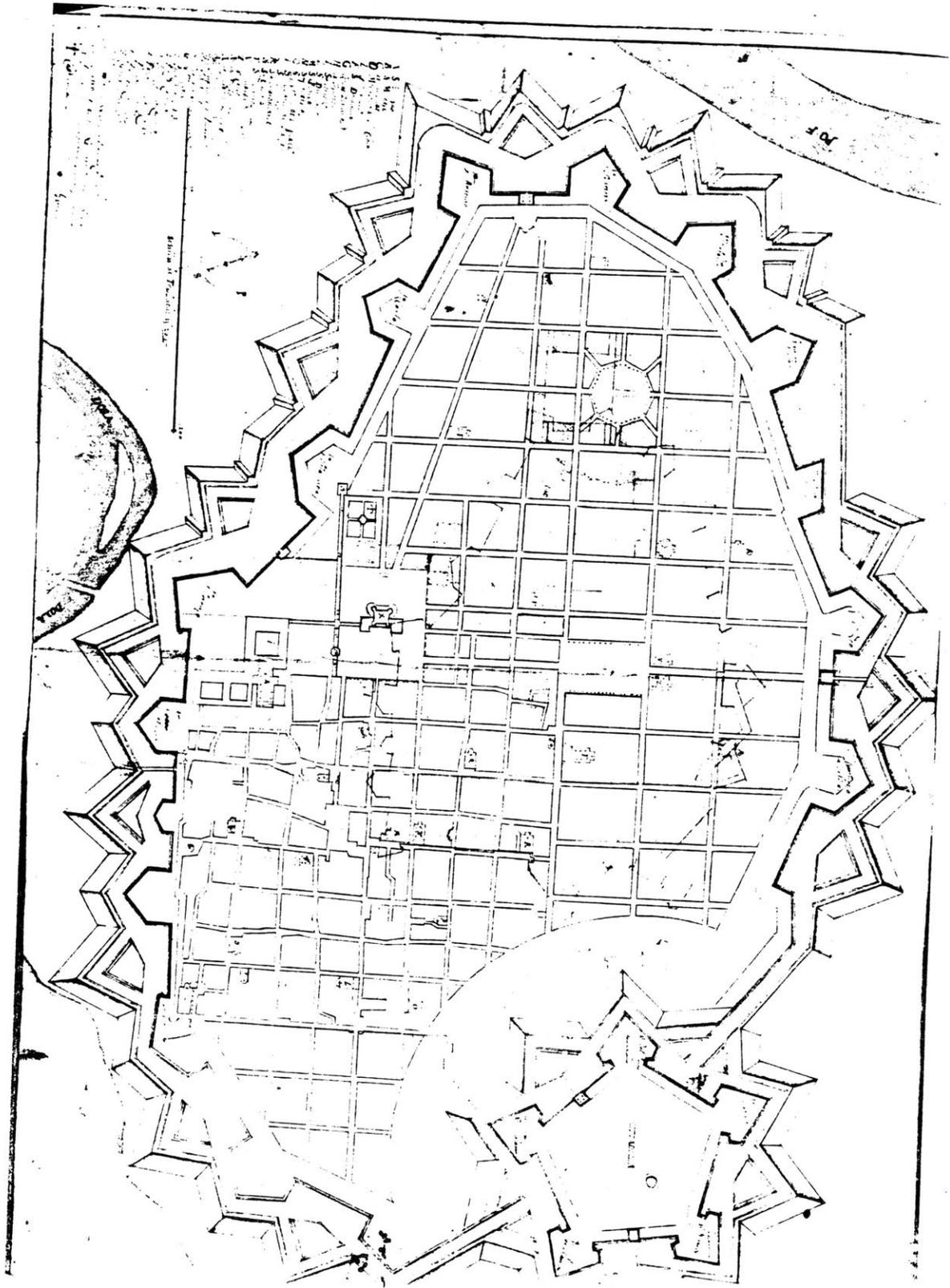
25. Expansion plan of Turin, 1656, C. Morello, BR.



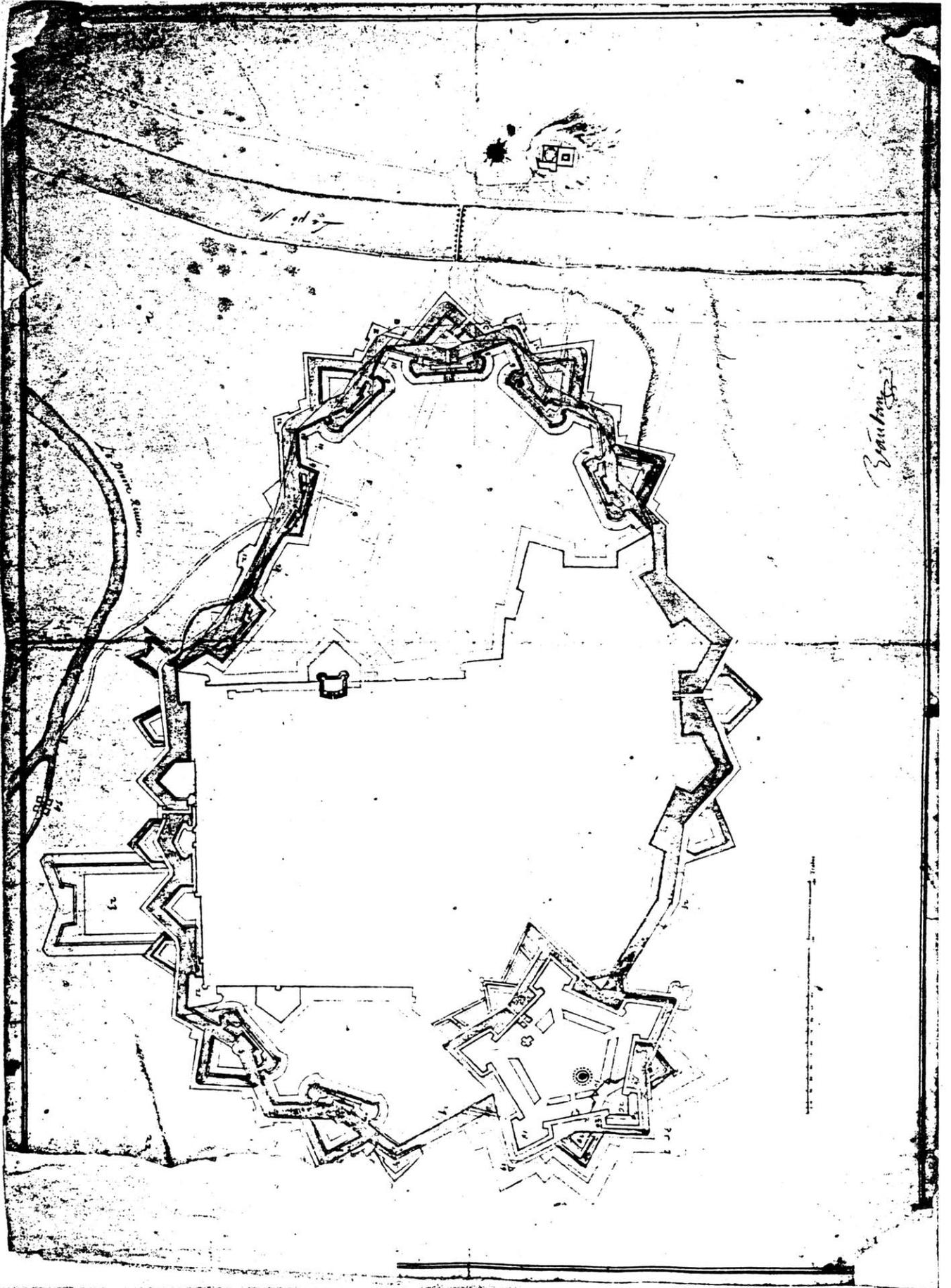
26. "Hidden" plan expansion proposal, BN, Estampes.



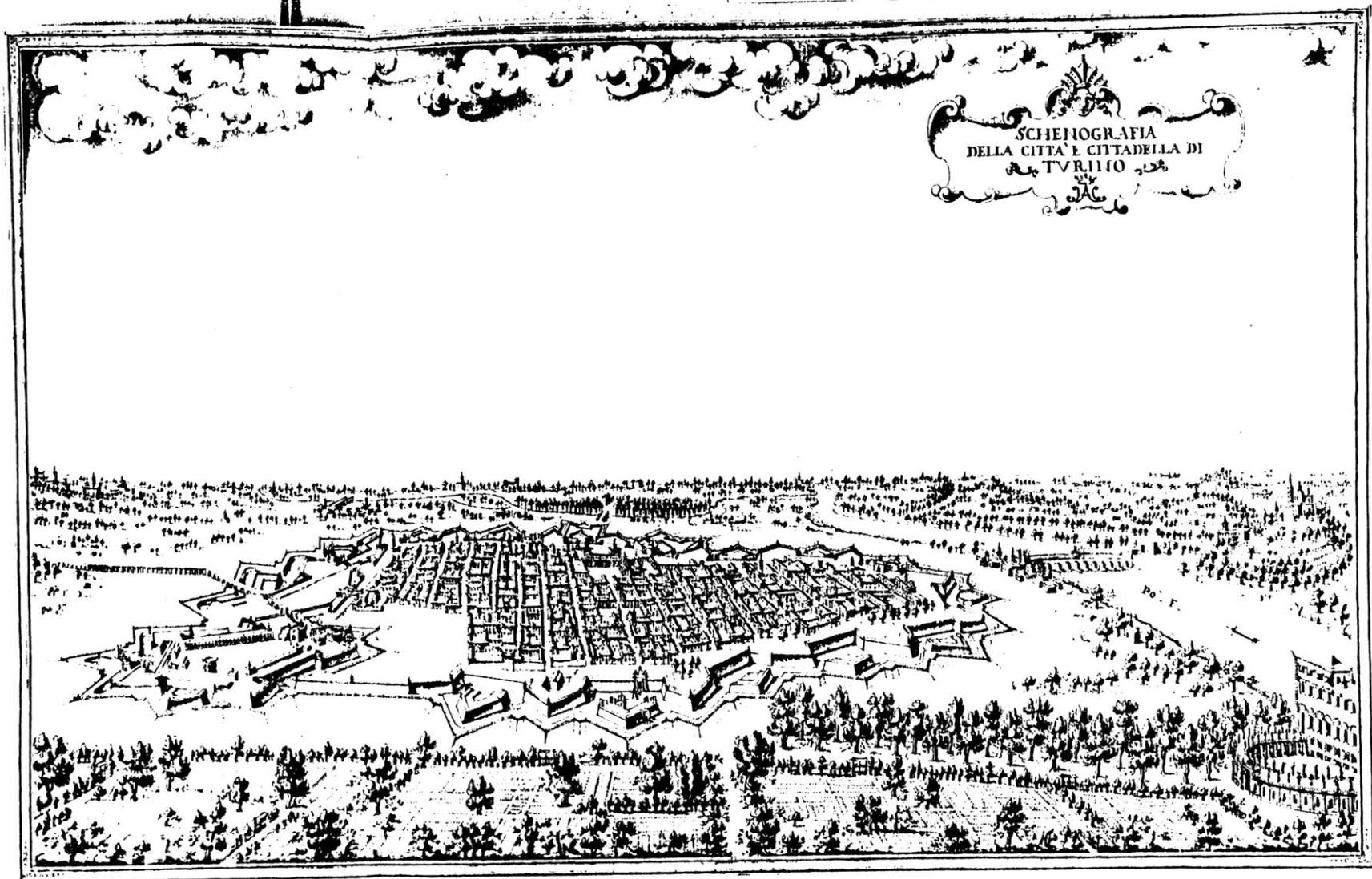
27. Plan of Turin with octagonal piazza, BN, Estampes.



28. Plan of Turin with study of Piazza Carlina, BA.



29. Fortification plan of Turin, Vauban, AST.



*Primarij Lapidis Inscriptio
et
Aduersum Numisma Aureum
Cum Regiæ Celsitudinis Effigie.*

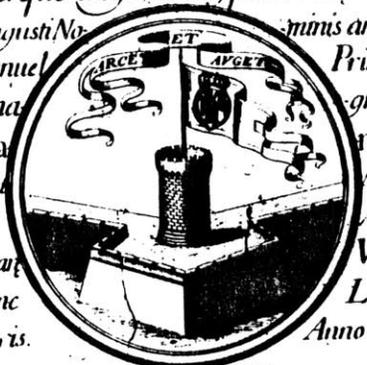
CAROLVS EMANVELII.
Allobrogum Dux, Cypri Rex.
Cæterâ Ditione lidis Arcibus communitâ,
Ipsum Ditionis Cor, ad sui Cordis Exemplum,
Non solum mutauit, sed ampliat.
Nam qui sua securus possidet,
Hostilia securius inuadet.
Et amplior quò pressior,
In festos infestabit.
Die XXIII Octobris
ANNO MDCLXXIII.



*Aliâ Lapidis Inscriptio
Metallo Incisa
et
Auersi Numismatis Symbolum*

AVGVSTÂ TAVRINORVM,

*Triumphali Cæsaris Augusti Magnificentiâ
Maximis Italiæ Urbibus æquatam,
Tum diro Gothorum seculo sepè dirutam,
Semperque angustiore specie renatam;
Ad pristinam Augusti No-
minus amplitudinẽ restituere.
Carolus Emanuel Primus uoluit:
Victor Amedeus magnâ ex parte potuit:
Carolus Emanuel Secundus,
Magni tui cogitatum et
Non degeneri Animo expleturus,
Aspirantibus Deiparæ Virginitatis Auspicijs;
Auguralem hunc Lapidem iacit.
Die 23. Octobris. Anno a Virgineo partu*



MDCLXXIII.



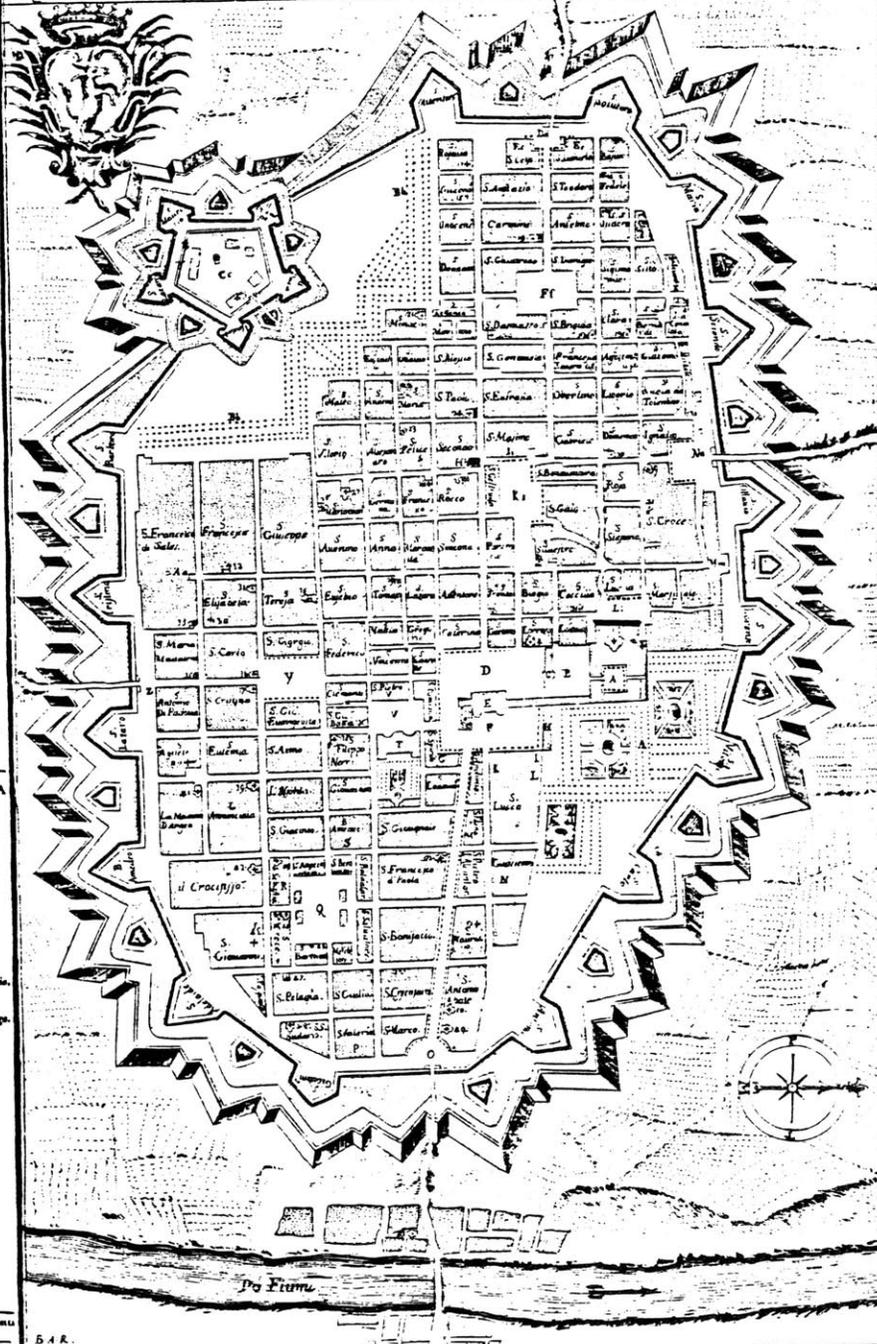
32. Plan of Turin, 1679, G. Tasniere, BR.

NVOVA PIANTA DELLA REALE CITTA DI TORINO.

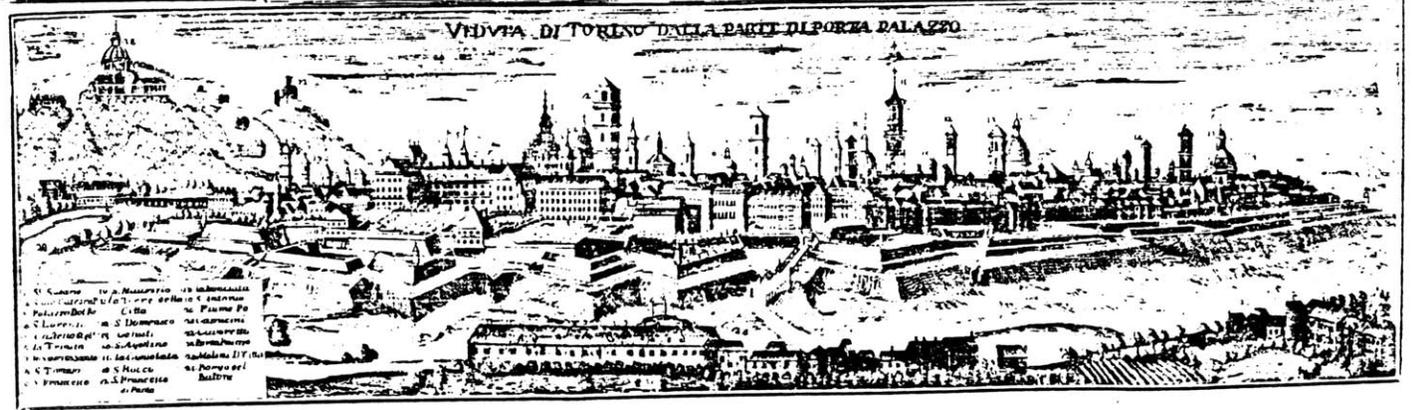
Con i Nomi di ciafcheduna Iſola con la Taoula per Ritrouare le Chiefe. e luoghi Pii con numeri ſeſonati. e Taoula Alfabetica per ritrouare i luoghi piu principali della Citta 1751.

- INDICE**
Per ritrouare
LE CHIESE. e LUOGHI PII.
1. S. Gio: Battista Chiesa Metropolitana Parrocchia.
 2. S. Simeone Carretta Reale.
 3. S. Crocifisso Chiesa Reale de' Corte.
 4. S. Giovanni Battista.
 5. S. Lorenzo Chiesa Reale PP. Tosani.
 6. S. S. Spirito Chiesa Reale PP. Tosani.
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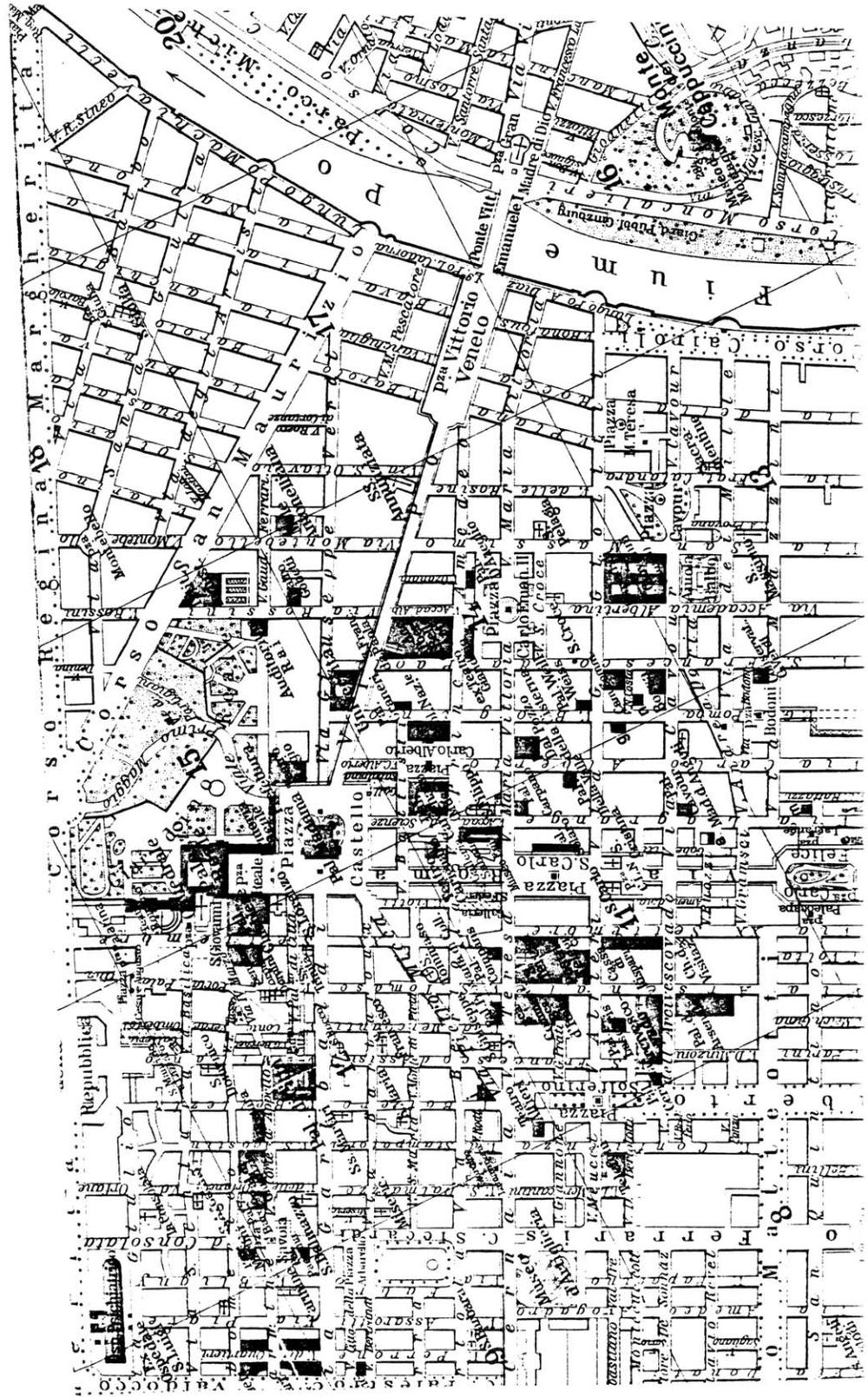
- TAVOLA ALFABETICA**
DEI LUOGHI PRINCIPALI.
- A Piazza del Re. e Giardini.
 - B Piazza Reale.
 - C Piazza Reale.
 - D Piazza del Cardinale.
 - E Piazza del Duca. e de' Cappella Reale.
 - F Piazza della Pace.
 - G Piazza della Pace.
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 - V Piazza della Pace.
 - X Piazza della Pace.
 - Y Piazza della Pace.
 - Z Piazza della Pace.



- SERIE DE VESCOVI. ED ARCIVESCOVI DELLA CITTA DI TORINO.**
Cogni Anno dalla loro Elezione.
- VESCOVI.**
110. S. Pietro I.
 111. S. Massimo I.
 112. S. Massimo II.
 113. S. Massimo III.
 114. S. Massimo IV.
 115. S. Massimo V.
 116. S. Massimo VI.
 117. S. Massimo VII.
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 198. S. Massimo LXXXVIII.
 199. S. Massimo LXXXIX.
 200. S. Massimo LXXXX.
- ARCIVESCOVI.**
1515. Emidio Gio. Francesco della Rovere croce Pa.
 1517. Antonio di Lorenzo de' Medici.
 1520. Camillo III. di Scipione.
 1521. Cesare Ursiniano.
 1527. Antonio di Lorenzo de' Medici.
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 1911. Antonio di Lorenzo de' Medici.
 1914. Antonio di Lorenzo de' Medici.
 1917. Antonio di Lorenzo de' Medici.
 1920. Antonio di Lorenzo de' Medici.
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 1977. Antonio di Lorenzo de' Medici.
 1980. Antonio di Lorenzo de' Medici.
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 1992. Antonio di Lorenzo de' Medici.
 1995. Antonio di Lorenzo de' Medici.
 1998. Antonio di Lorenzo de' Medici.
 2001. Antonio di Lorenzo de' Medici.
 2004. Antonio di Lorenzo de' Medici.
 2007. Antonio di Lorenzo de' Medici.
 2010. Antonio di Lorenzo de' Medici.
 2013. Antonio di Lorenzo de' Medici.
 2016. Antonio di Lorenzo de' Medici.
 2019. Antonio di Lorenzo de' Medici.
 2022. Antonio di Lorenzo de' Medici.
- CRONOLOGIA**
DEREALI SOVRANI DI SAOIA.
- Cogni Anno dal principio del Regno.
- | | |
|------------------|----------------------------|
| 1024. Berardo | 1141. Aniano VII. |
| 1027. Aniano I. | 1144. Aniano VIII. |
| 1030. Aniano I. | 1147. Aniano IX. |
| 1033. Aniano I. | 1150. Aniano X. |
| 1036. Aniano II. | 1153. Aniano XI. |
| 1039. Aniano II. | 1156. Aniano XII. |
| 1042. Aniano II. | 1159. Aniano XIII. |
| 1045. Aniano II. | 1162. Aniano XIV. |
| 1048. Aniano II. | 1165. Aniano XV. |
| 1051. Aniano II. | 1168. Aniano XVI. |
| 1054. Aniano II. | 1171. Aniano XVII. |
| 1057. Aniano II. | 1174. Aniano XVIII. |
| 1060. Aniano II. | 1177. Aniano XIX. |
| 1063. Aniano II. | 1180. Aniano XX. |
| 1066. Aniano II. | 1183. Aniano XXI. |
| 1069. Aniano II. | 1186. Aniano XXII. |
| 1072. Aniano II. | 1189. Aniano XXIII. |
| 1075. Aniano II. | 1192. Aniano XXIV. |
| 1078. Aniano II. | 1195. Aniano XXV. |
| 1081. Aniano II. | 1198. Aniano XXVI. |
| 1084. Aniano II. | 1201. Aniano XXVII. |
| 1087. Aniano II. | 1204. Aniano XXVIII. |
| 1090. Aniano II. | 1207. Aniano XXIX. |
| 1093. Aniano II. | 1210. Aniano XXX. |
| 1096. Aniano II. | 1213. Aniano XXXI. |
| 1099. Aniano II. | 1216. Aniano XXXII. |
| 1102. Aniano II. | 1219. Aniano XXXIII. |
| 1105. Aniano II. | 1222. Aniano XXXIV. |
| 1108. Aniano II. | 1225. Aniano XXXV. |
| 1111. Aniano II. | 1228. Aniano XXXVI. |
| 1114. Aniano II. | 1231. Aniano XXXVII. |
| 1117. Aniano II. | 1234. Aniano XXXVIII. |
| 1120. Aniano II. | 1237. Aniano XXXIX. |
| 1123. Aniano II. | 1240. Aniano XL. |
| 1126. Aniano II. | 1243. Aniano XLI. |
| 1129. Aniano II. | 1246. Aniano XLII. |
| 1132. Aniano II. | 1249. Aniano XLIII. |
| 1135. Aniano II. | 1252. Aniano XLIV. |
| 1138. Aniano II. | 1255. Aniano XLV. |
| 1141. Aniano II. | 1258. Aniano XLVI. |
| 1144. Aniano II. | 1261. Aniano XLVII. |
| 1147. Aniano II. | 1264. Aniano XLVIII. |
| 1150. Aniano II. | 1267. Aniano XLIX. |
| 1153. Aniano II. | 1270. Aniano L. |
| 1156. Aniano II. | 1273. Aniano LI. |
| 1159. Aniano II. | 1276. Aniano LII. |
| 1162. Aniano II. | 1279. Aniano LIII. |
| 1165. Aniano II. | 1282. Aniano LIV. |
| 1168. Aniano II. | 1285. Aniano LV. |
| 1171. Aniano II. | 1288. Aniano LVI. |
| 1174. Aniano II. | 1291. Aniano LVII. |
| 1177. Aniano II. | 1294. Aniano LVIII. |
| 1180. Aniano II. | 1297. Aniano LIX. |
| 1183. Aniano II. | 1300. Aniano LX. |
| 1186. Aniano II. | 1303. Aniano LXI. |
| 1189. Aniano II. | 1306. Aniano LXII. |
| 1192. Aniano II. | 1309. Aniano LXIII. |
| 1195. Aniano II. | 1312. Aniano LXIV. |
| 1198. Aniano II. | 1315. Aniano LXV. |
| 1201. Aniano II. | 1318. Aniano LXVI. |
| 1204. Aniano II. | 1321. Aniano LXVII. |
| 1207. Aniano II. | 1324. Aniano LXVIII. |
| 1210. Aniano II. | 1327. Aniano LXIX. |
| 1213. Aniano II. | 1330. Aniano LXX. |
| 1216. Aniano II. | 1333. Aniano LXXI. |
| 1219. Aniano II. | 1336. Aniano LXXII. |
| 1222. Aniano II. | 1339. Aniano LXXIII. |
| 1225. Aniano II. | 1342. Aniano LXXIV. |
| 1228. Aniano II. | 1345. Aniano LXXV. |
| 1231. Aniano II. | 1348. Aniano LXXVI. |
| 1234. Aniano II. | 1351. Aniano LXXVII. |
| 1237. Aniano II. | 1354. Aniano LXXVIII. |
| 1240. Aniano II. | 1357. Aniano LXXIX. |
| 1243. Aniano II. | 1360. Aniano LXXX. |
| 1246. Aniano II. | 1363. Aniano LXXXI. |
| 1249. Aniano II. | 1366. Aniano LXXXII. |
| 1252. Aniano II. | 1369. Aniano LXXXIII. |
| 1255. Aniano II. | 1372. Aniano LXXXIV. |
| 1258. Aniano II. | 1375. Aniano LXXXV. |
| 1261. Aniano II. | 1378. Aniano LXXXVI. |
| 1264. Aniano II. | 1381. Aniano LXXXVII. |
| 1267. Aniano II. | 1384. Aniano LXXXVIII. |
| 1270. Aniano II. | 1387. Aniano LXXXIX. |
| 1273. Aniano II. | 1390. Aniano LXXXX. |
| 1276. Aniano II. | 1393. Aniano LXXXXI. |
| 1279. Aniano II. | 1396. Aniano LXXXXII. |
| 1282. Aniano II. | 1399. Aniano LXXXXIII. |
| 1285. Aniano II. | 1402. Aniano LXXXXIV. |
| 1288. Aniano II. | 1405. Aniano LXXXXV. |
| 1291. Aniano II. | 1408. Aniano LXXXXVI. |
| 1294. Aniano II. | 1411. Aniano LXXXXVII. |
| 1297. Aniano II. | 1414. Aniano LXXXXVIII. |
| 1300. Aniano II. | 1417. Aniano LXXXXIX. |
| 1303. Aniano II. | 1420. Aniano LXXXXX. |
| 1306. Aniano II. | 1423. Aniano LXXXXXI. |
| 1309. Aniano II. | 1426. Aniano LXXXXXII. |
| 1312. Aniano II. | 1429. Aniano LXXXXXIII. |
| 1315. Aniano II. | 1432. Aniano LXXXXXIV. |
| 1318. Aniano II. | 1435. Aniano LXXXXXV. |
| 1321. Aniano II. | 1438. Aniano LXXXXXVI. |
| 1324. Aniano II. | 1441. Aniano LXXXXXVII. |
| 1327. Aniano II. | 1444. Aniano LXXXXXVIII. |
| 1330. Aniano II. | 1447. Aniano LXXXXXIX. |
| 1333. Aniano II. | 1450. Aniano LXXXXXX. |
| 1336. Aniano II. | 1453. Aniano LXXXXXXI. |
| 1339. Aniano II. | 1456. Aniano LXXXXXXII. |
| 1342. Aniano II. | 1459. Aniano LXXXXXXIII. |
| 1345. Aniano II. | 1462. Aniano LXXXXXXIV. |
| 1348. Aniano II. | 1465. Aniano LXXXXXXV. |
| 1351. Aniano II. | 1468. Aniano LXXXXXXVI. |
| 1354. Aniano II. | 1471. Aniano LXXXXXXVII. |
| 1357. Aniano II. | 1474. Aniano LXXXXXXVIII. |
| 1360. Aniano II. | 1477. Aniano LXXXXXXIX. |
| 1363. Aniano II. | 1480. Aniano LXXXXXXX. |
| 1366. Aniano II. | 1483. Aniano LXXXXXXXI. |
| 1369. Aniano II. | 1486. Aniano LXXXXXXXII. |
| 1372. Aniano II. | 1489. Aniano LXXXXXXXIII. |
| 1375. Aniano II. | 1492. Aniano LXXXXXXXIV. |
| 1378. Aniano II. | 1495. Aniano LXXXXXXXV. |
| 1381. Aniano II. | 1498. Aniano LXXXXXXXVI. |
| 1384. Aniano II. | 1501. Aniano LXXXXXXXVII. |
| 1387. Aniano II. | 1504. Aniano LXXXXXXXVIII. |
| 1390. Aniano II. | 1507. Aniano LXXXXXXXIX. |
| 1393. Aniano II. | 1510. Aniano LXXXXXXX. |
| 1396. Aniano II. | 1513. Aniano LXXXXXXXI. |
| 1399. Aniano II. | 1516. Aniano LXXXXXXXII. |
| 1402. Aniano II. | 1519. Aniano LXXXXXXXIII. |
| 1405. Aniano II. | 1522. Aniano LXXXXXXXIV. |
| 1408. Aniano II. | 1525. Aniano LXXXXXXXV. |
| 1411. Aniano II. | 1528. Aniano LXXXXXXXVI. |
| 1414. Aniano II. | 1531. Aniano LXXXXXXXVII. |
| 1417. Aniano II. | 1534. Aniano LXXXXXXXVIII. |
| 1420. Aniano II. | 1537. Aniano LXXXXXXXIX. |
| 1423. Aniano II. | 1540. Aniano LXXXXXXX. |
| 1426. Aniano II. | 1543. Aniano LXXXXXXXI. |
| 1429. Aniano II. | 1546. Aniano LXXXXXXXII. |
| 1432. Aniano II. | 1549. Aniano LXXXXXXXIII. |
| 1435. Aniano II. | 1552. Aniano LXXXXXXXIV. |
| 1438. Aniano II. | 1555. Aniano LXXXXXXXV. |
| 1441. Aniano II. | 1558. Aniano LXXXXXXXVI. |
| 1444. Aniano II. | 1561. Aniano LXXXXXXXVII. |
| 1447. Aniano II. | 1564. Aniano LXXXXXXXVIII. |
| 1450. Aniano II. | 1567. Aniano LXXXXXXXIX. |
| 1453. Aniano II. | 1570. Aniano LXXXXXXX. |



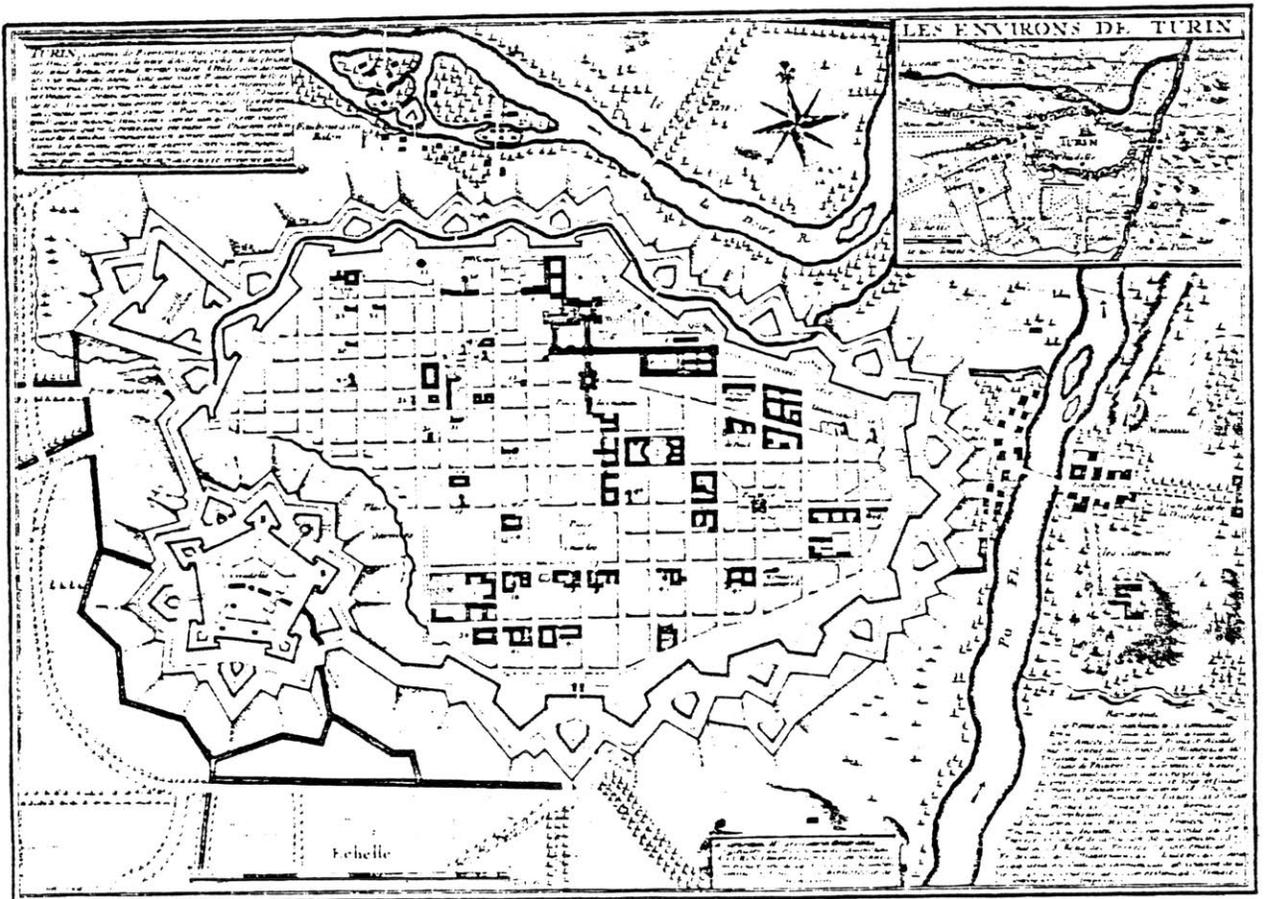
33. Plan of Turin, 1751, B.A.Re, BR.



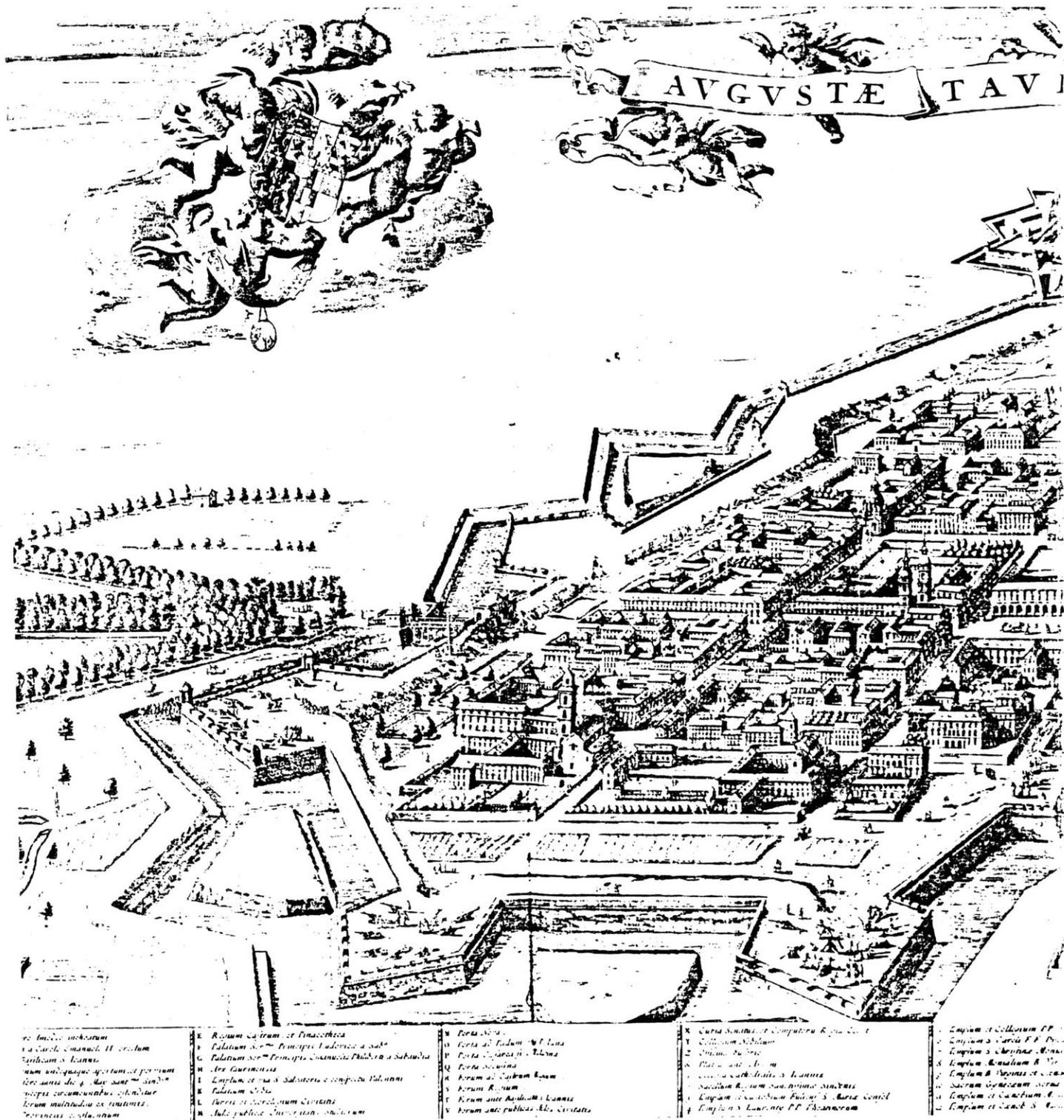
34. Plan of Turin, 1975, TCI.

35. Plan of Turin, 1682, T. Borgonio, Theatrum.





36. Plan of Turin, 1695, Ch. Inselin, ASC.



1. Invenit innotuit
 2. Caroli Emanuel II. regium
 3. Episcopi S. Joannis
 4. num. undique apertum et peritum
 5. (S. Joannis de S. Jo. S. Jo. S. Jo.)
 6. (S. Jo. S. Jo. S. Jo. S. Jo.)
 7. Regum multitudinem eximitur
 8. (S. Jo. S. Jo. S. Jo. S. Jo.)
 9. (S. Jo. S. Jo. S. Jo. S. Jo.)

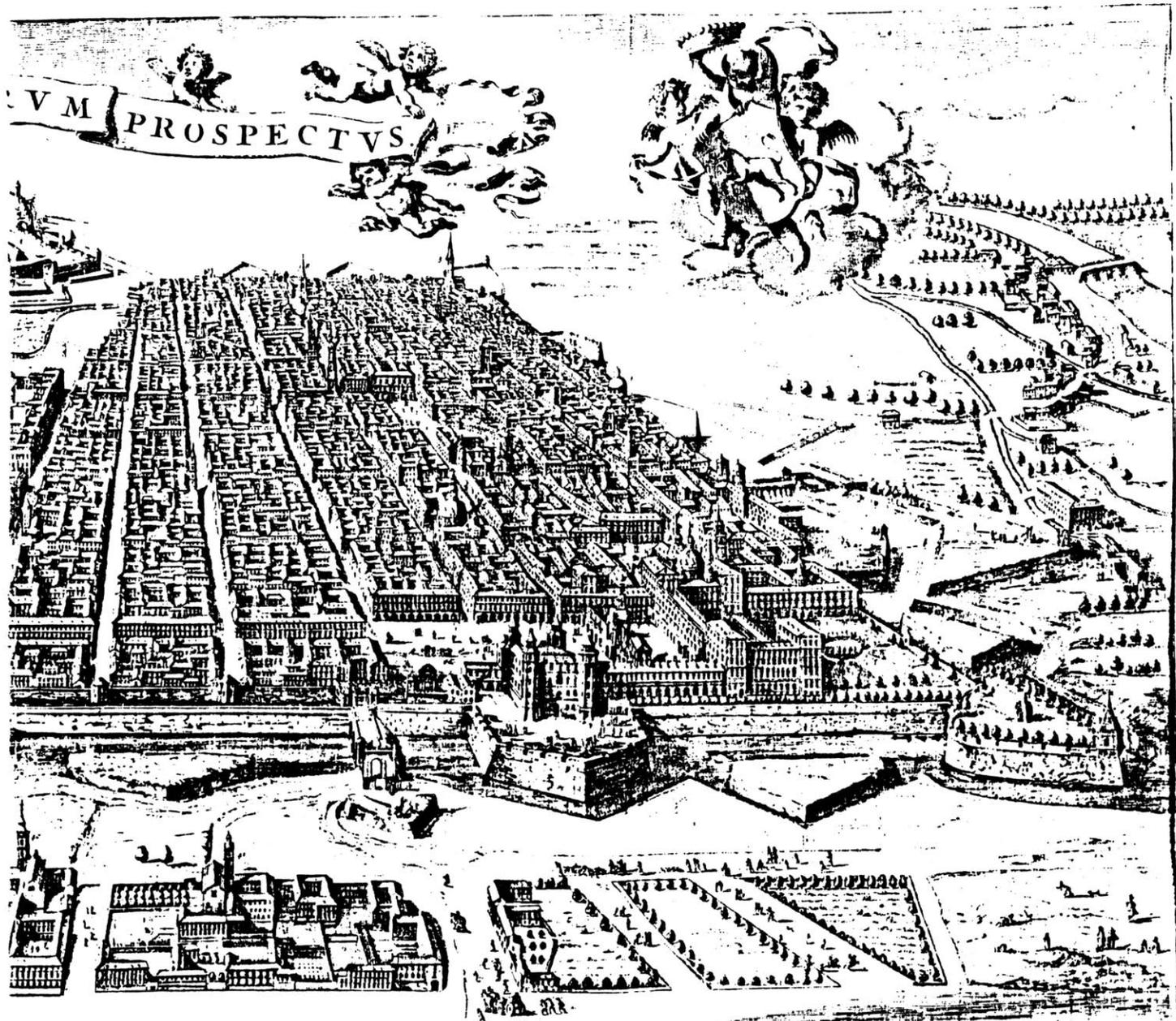
E. Regium Castrum et Domus
 F. Palatium S. Jo. S. Jo. S. Jo. S. Jo.
 G. Palatium S. Jo. S. Jo. S. Jo. S. Jo.
 H. (S. Jo. S. Jo. S. Jo. S. Jo.)
 I. (S. Jo. S. Jo. S. Jo. S. Jo.)
 K. (S. Jo. S. Jo. S. Jo. S. Jo.)
 L. (S. Jo. S. Jo. S. Jo. S. Jo.)
 M. (S. Jo. S. Jo. S. Jo. S. Jo.)

N. (S. Jo. S. Jo. S. Jo. S. Jo.)
 O. (S. Jo. S. Jo. S. Jo. S. Jo.)
 P. (S. Jo. S. Jo. S. Jo. S. Jo.)
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 R. (S. Jo. S. Jo. S. Jo. S. Jo.)
 S. (S. Jo. S. Jo. S. Jo. S. Jo.)
 T. (S. Jo. S. Jo. S. Jo. S. Jo.)
 U. (S. Jo. S. Jo. S. Jo. S. Jo.)
 V. (S. Jo. S. Jo. S. Jo. S. Jo.)

X. (S. Jo. S. Jo. S. Jo. S. Jo.)
 Y. (S. Jo. S. Jo. S. Jo. S. Jo.)
 Z. (S. Jo. S. Jo. S. Jo. S. Jo.)
 AA. (S. Jo. S. Jo. S. Jo. S. Jo.)
 AB. (S. Jo. S. Jo. S. Jo. S. Jo.)
 AC. (S. Jo. S. Jo. S. Jo. S. Jo.)
 AD. (S. Jo. S. Jo. S. Jo. S. Jo.)
 AE. (S. Jo. S. Jo. S. Jo. S. Jo.)

AF. (S. Jo. S. Jo. S. Jo. S. Jo.)
 AG. (S. Jo. S. Jo. S. Jo. S. Jo.)
 AH. (S. Jo. S. Jo. S. Jo. S. Jo.)
 AI. (S. Jo. S. Jo. S. Jo. S. Jo.)
 AJ. (S. Jo. S. Jo. S. Jo. S. Jo.)
 AK. (S. Jo. S. Jo. S. Jo. S. Jo.)
 AL. (S. Jo. S. Jo. S. Jo. S. Jo.)

37. Perspective view of Turin, 1682, T.Borgonio, Theatrum.



1. *Sancti Francisci Salesii*
 2. *Sancti Spiritus*
 3. *Sancti Iosephi*
 4. *Sancti Martini*
 5. *Sancti Michaelis*
 6. *Sancti Petri*
 7. *Sancti Pauli*
 8. *Sancti Vincentii*
 9. *Sancti Ysaie*

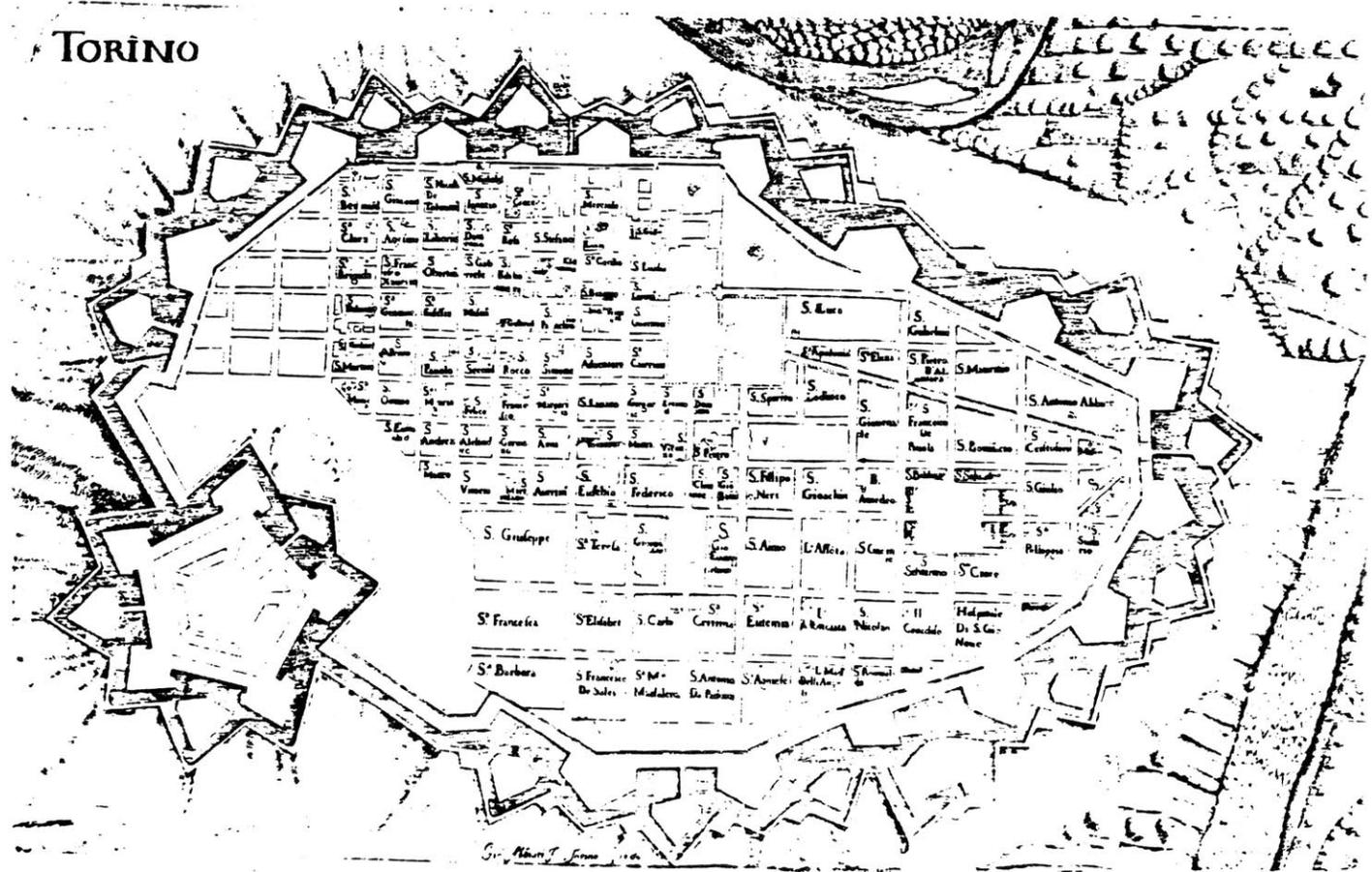
10. *Sancti Augustini*
 11. *Sancti Basilidis*
 12. *Sancti Bernardini*
 13. *Sancti Caroli*
 14. *Sancti Clementis*
 15. *Sancti Eusebii*
 16. *Sancti Felices*
 17. *Sancti Genesii*
 18. *Sancti Gregorii*
 19. *Sancti Hieronymi*
 20. *Sancti Iuliani*

21. *Sancti Iuliani*
 22. *Sancti Iuliani*
 23. *Sancti Iuliani*
 24. *Sancti Iuliani*
 25. *Sancti Iuliani*
 26. *Sancti Iuliani*
 27. *Sancti Iuliani*
 28. *Sancti Iuliani*
 29. *Sancti Iuliani*
 30. *Sancti Iuliani*

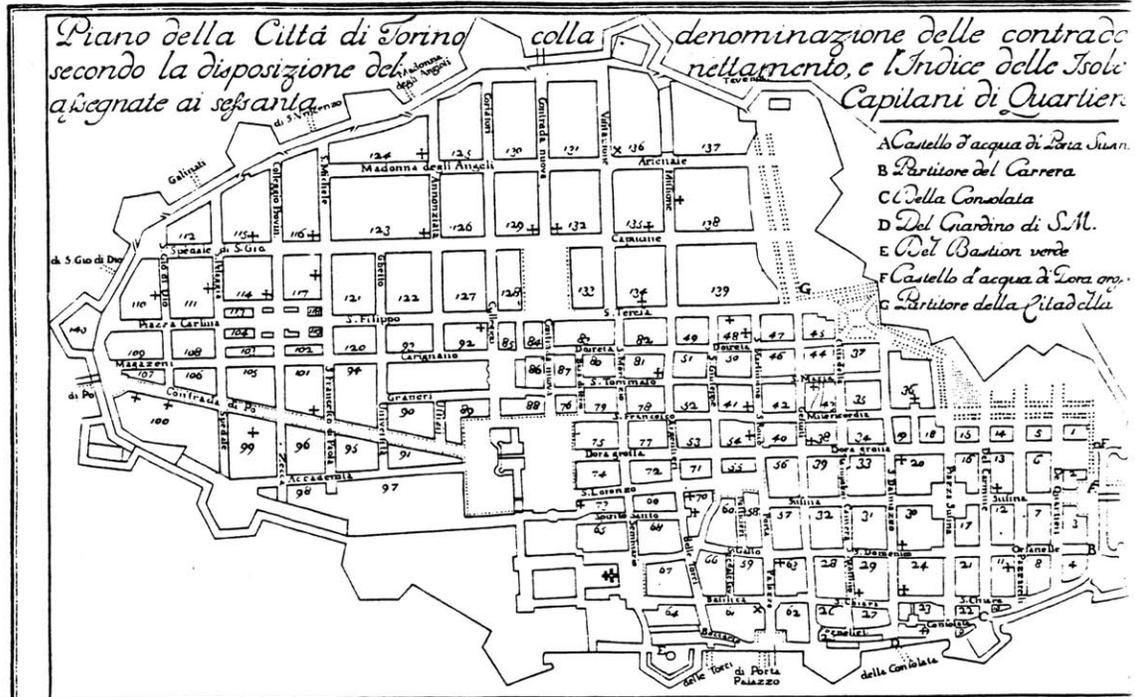
31. *Sancti Iuliani*
 32. *Sancti Iuliani*
 33. *Sancti Iuliani*
 34. *Sancti Iuliani*
 35. *Sancti Iuliani*
 36. *Sancti Iuliani*
 37. *Sancti Iuliani*
 38. *Sancti Iuliani*
 39. *Sancti Iuliani*
 40. *Sancti Iuliani*

Thomas Borgonio S. R. Off. à Secretis Delmeat
 1682
 IOANNES BLAEU

38. Perspective view of Turin, 1682, T.Borgonio, Theatrum.



39. Plan of Turin, 1680, G. Abbiati, coll. Lanzone.



1 1 Rosalba	4 18 Grisante	10 35 Ottavio	17 51 Anna	26 64 Marziale	34 70 Lazzaro	43 92 Filippo	50 Borgo di S. Maria	55 126 Eufemia
2 2 Celso	19 19 Martino	36 36 Monaca	52 52 Maronita	65 65 Luogo	35 35 Gregorio	93 93 Giovachino	51 51 Valerico	127 127 Umo
3 3 Daniele	20 20 Dalmazzo	37 37 Eustachio	53 53 Simone	66 66 Stefano	36 36 Matthia	94 94 Giovannale	52 52 Sudario	128 128 Cecilia
4 4 Basilio	21 21 Sigimondo	38 38 Paolo	54 54 Poco	67 67 Lucia	37 37 Tommaso	95 95 Clena	53 53 Palaoia	129 129 Cristina
5 5 Cacondo	22 22 Fisio	39 39 Custavia	55 55 Gelltruda	68 68 Cecilia	38 38 Eusebia	96 96 Vittorio d'Alv	54 54 Pascuale	130 130 Antonio
6 6 Anastasio	23 23 Bernardo	40 40 Secondo	56 56 Maburno	69 69 Baccio	39 39 Federico	97 97 Lucia	55 55 Bartolomeo	131 131 Antonio
7 7 Teodoro	24 24 Chiara	41 41 Francesco	57 57 Gabriele	70 70 Silvestro	40 40 Clemente	98 98 Gualtiero	56 56 Croc Monaca	132 132 M. Maria
8 8 Fedele	25 25 Michele	42 42 Felice	58 58 Bona Ventura	71 71 Ancazio	41 41 Pietro	99 99 Mozio	57 57 Croc S. M. M.	133 133 Carlo
9 9 Sauli	26 26 Nicola	43 43 Maria	59 59 Rosa	72 72 Arnica	42 42 Pincenzo	100 100 Antonio	58 58 Sebastiano	134 134 Cristina
10 10 Elio	27 27 Giacomo	44 44 Andrea	60 60 Gallo	73 73 Lorenzo	43 43 Caterina	101 101 Balda par	59 59 Croc S. M. M.	135 135 Cristina
11 11 Siddoro	28 28 Alibon	45 45 Matteo	61 61 Croc	74 74 Gaetano	44 44 Spirito	102 102 F. di Baldo	60 60 S. M. M.	136 136 Cristina
12 12 Arnaldo	29 29 Anojino	46 46 Mariano	62 62 Croc	75 75 Caterina	45 45 Donatone	103 103 Balda par	61 61 S. M. M.	137 137 Cristina
13 13 Carmine	30 30 Brianda	47 47 P. Ilario	63 63 Dononzo	76 76 Cimanel	46 46 Cristoforo	104 104 Balda par	62 62 S. M. M.	138 138 Cristina
14 14 Innocenzo	31 31 Tran. Xau	48 48 Martina	64 64 Donazio	77 77 Adventore	47 47 Cristoforo	105 105 Balda par	63 63 S. M. M.	139 139 Cristina
15 15 Doodata	32 32 Obertino	49 49 Aureliano	65 65 Dononzo	78 78 Adventore	48 48 Cristoforo	106 106 Balda par	64 64 S. M. M.	140 140 Cristina
16 16 Chiarredo	33 33 Convid'ia	50 50 Germano	Borgo di S. Maria	Borgo di S. Maria	49 49 Cristoforo	107 107 Balda par	65 65 S. M. M.	141 141 Cristina
17 17 Cotignio	34 34 Ulpio				50 50 Cristoforo	108 108 Balda par	66 66 S. M. M.	142 142 Cristina

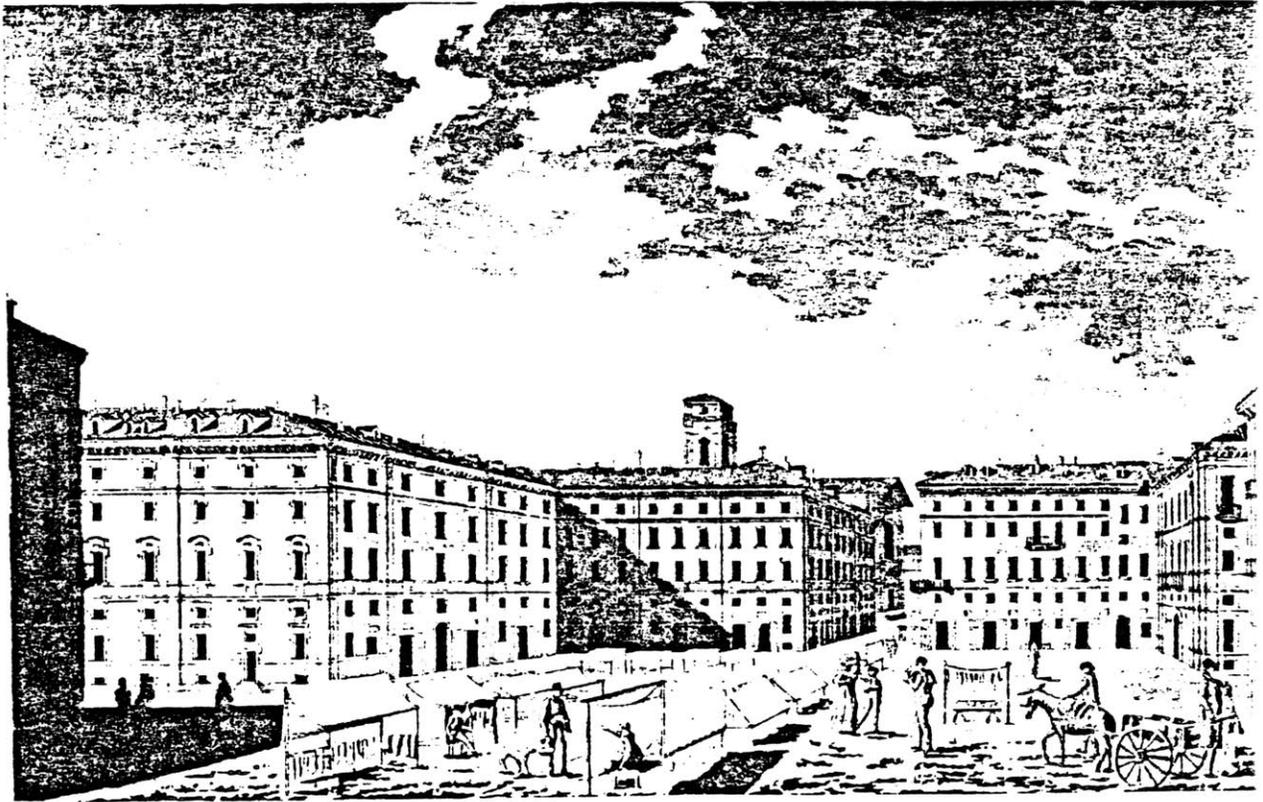
Stato delle Isole secondo la divisione delle dieci Parochie di questa Metropoli

S. Giovanni	53 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120
S. Marco	100 106 107 108 109 110 111 112
S. Filippo	83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120
S. Tommaso	41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120
S. Agostino	23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120
S. Martiniano	7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120
S. Dalmazzo	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120
S. Rocco	32 33 34 35 36
S. e Maria	35 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120
Carmine	12 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120

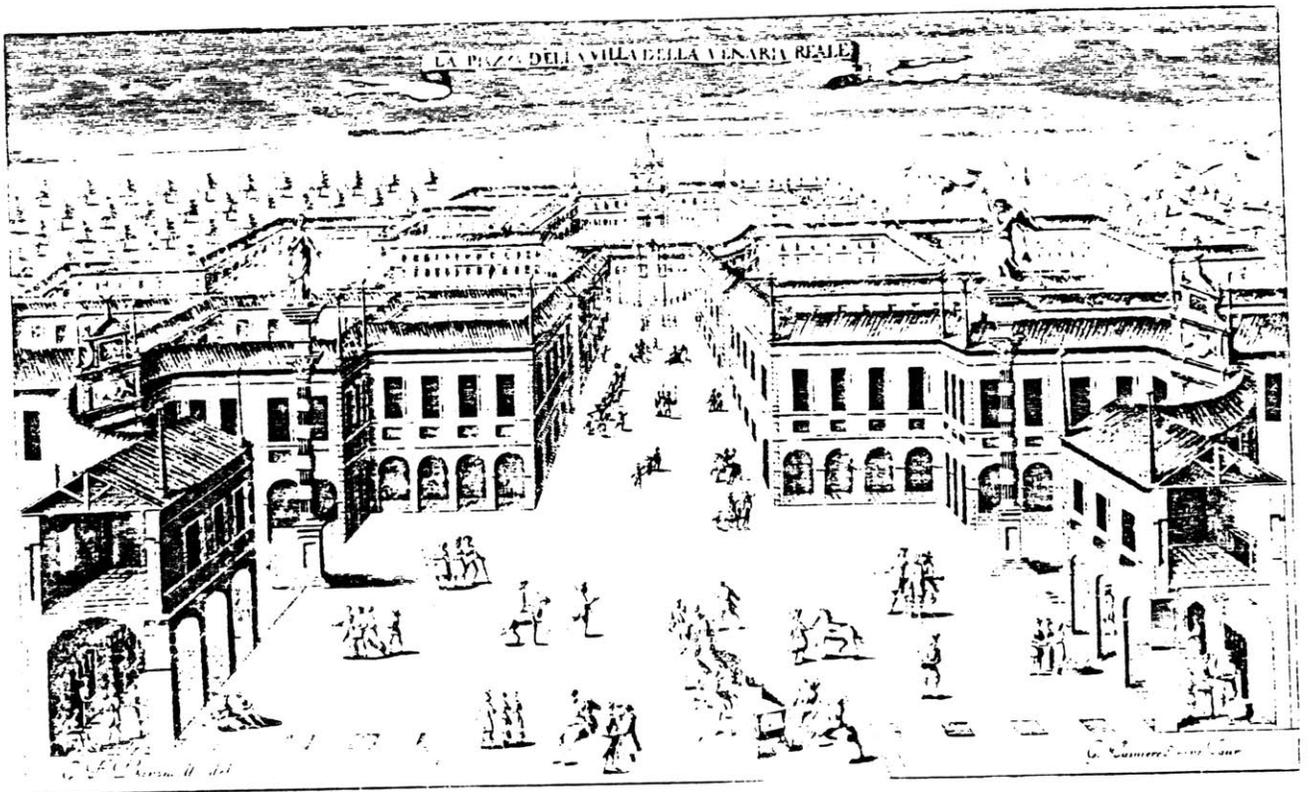
40. Plan of Turin, 1724, BR.



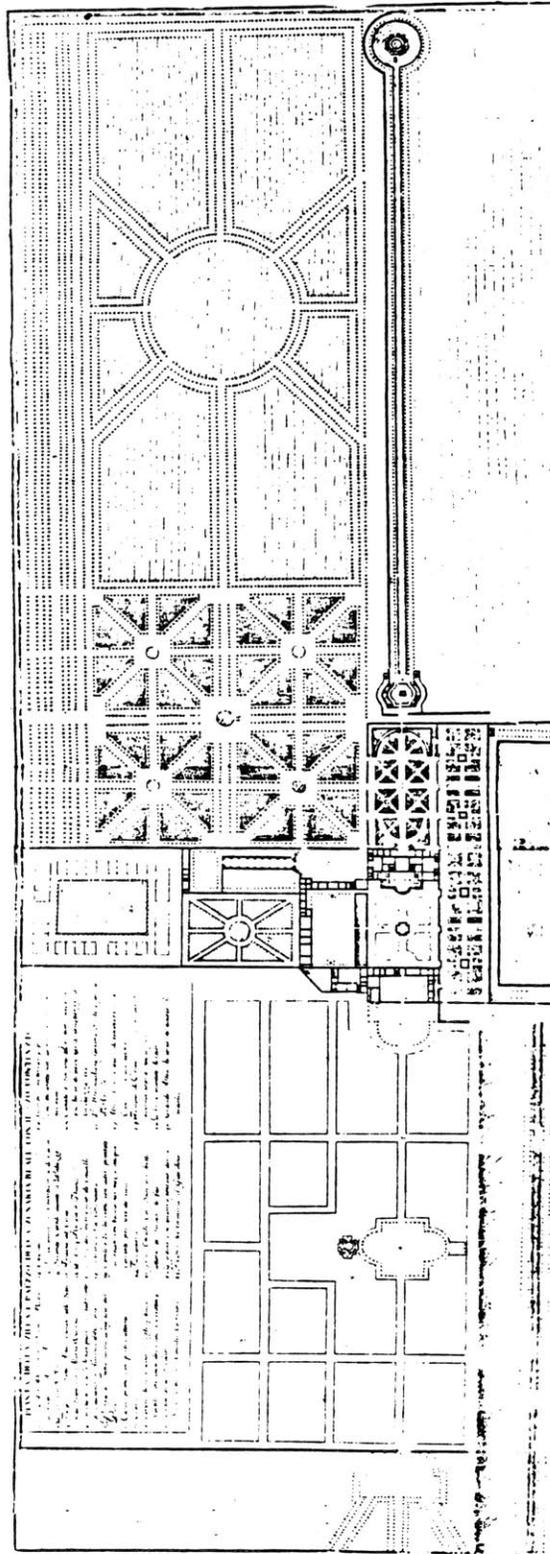
41. Plan of Turin, 1800, V. Boasso, coll. Lanzone.



42. View of Piazza Savoia (Susina), 1817, coll. Lanzone.



43. View of Venaria Reale, 1674, G. Tasniere, La Venaria Reale.



44. Plan of Venaria Reale, 1674, G. Tasniere, La Venaria Reale.



45. Foundation medal, 1673, Dufour, BN, Medailles.



46. Foundation medal, 1673, verso, Dufour, BN, Medailles.



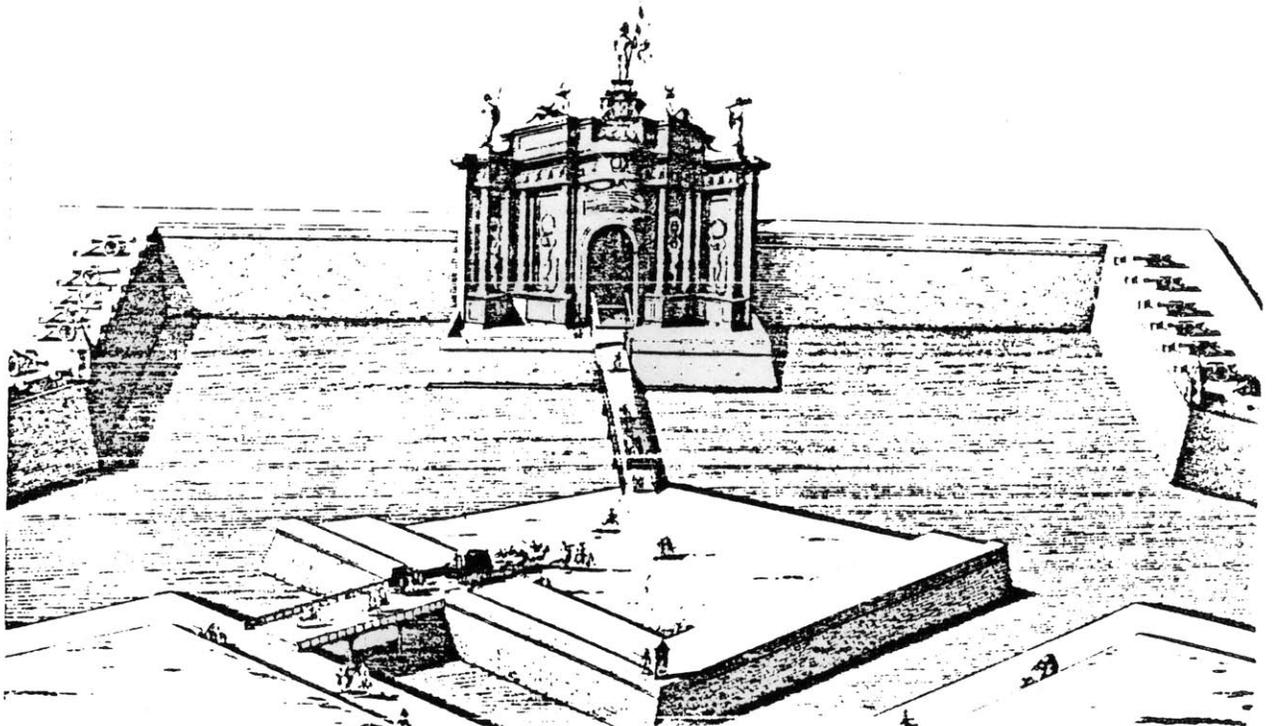
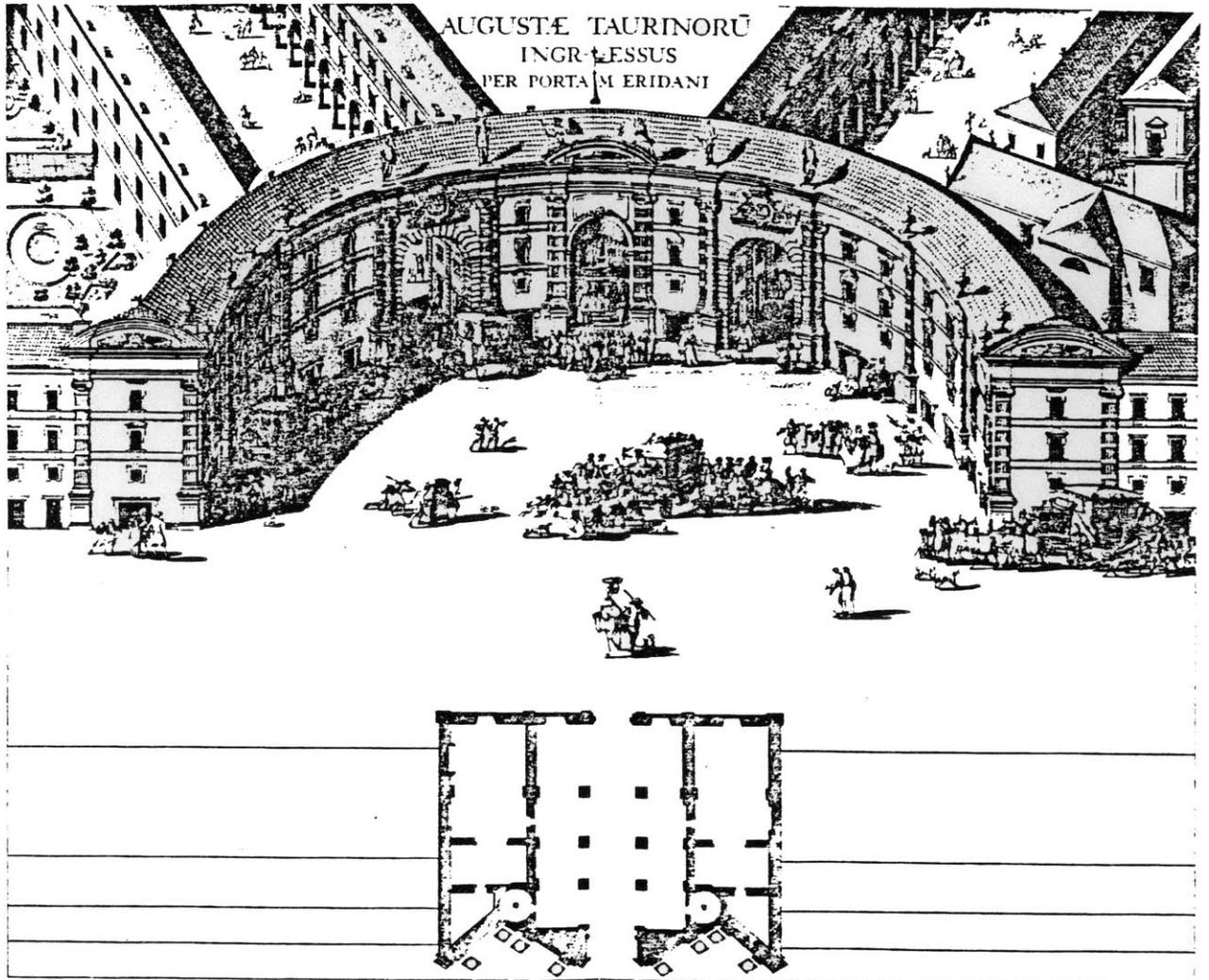
47. Foundation medal, 1673, BN, Medailles.



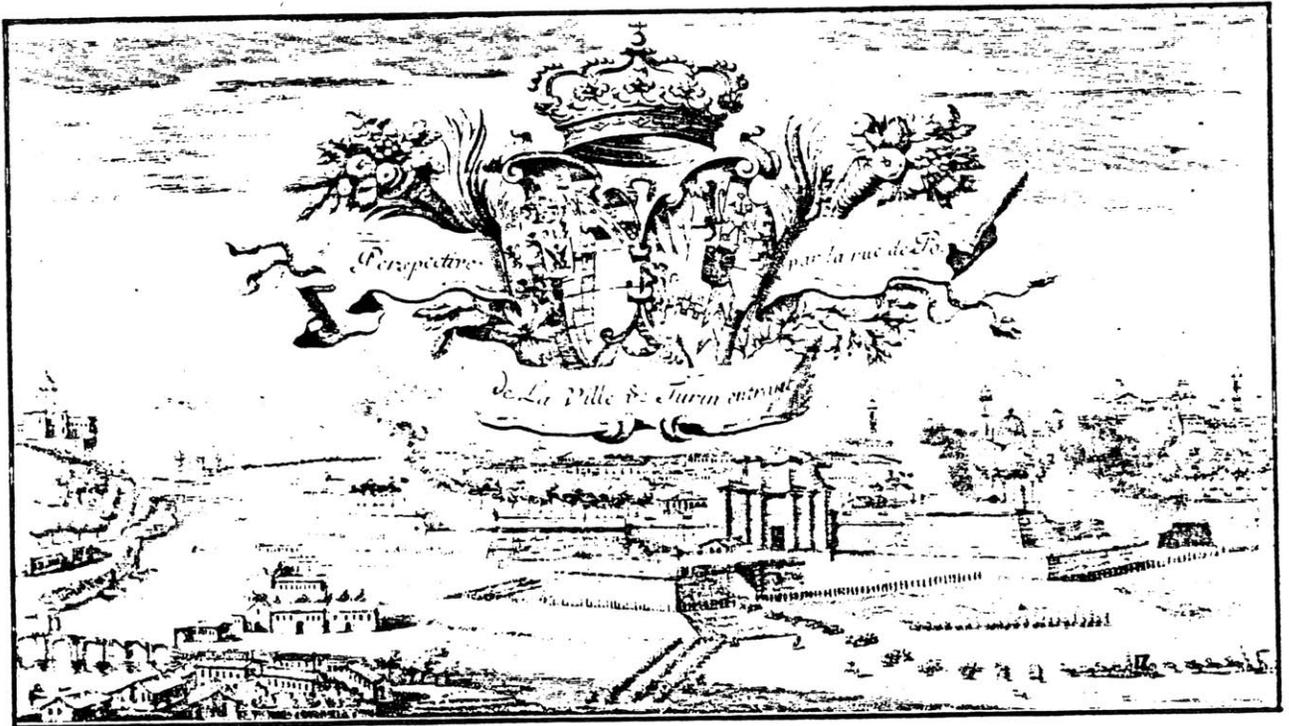
48. Foundation medal, 1673, alternative, verso, BN, Medailles.



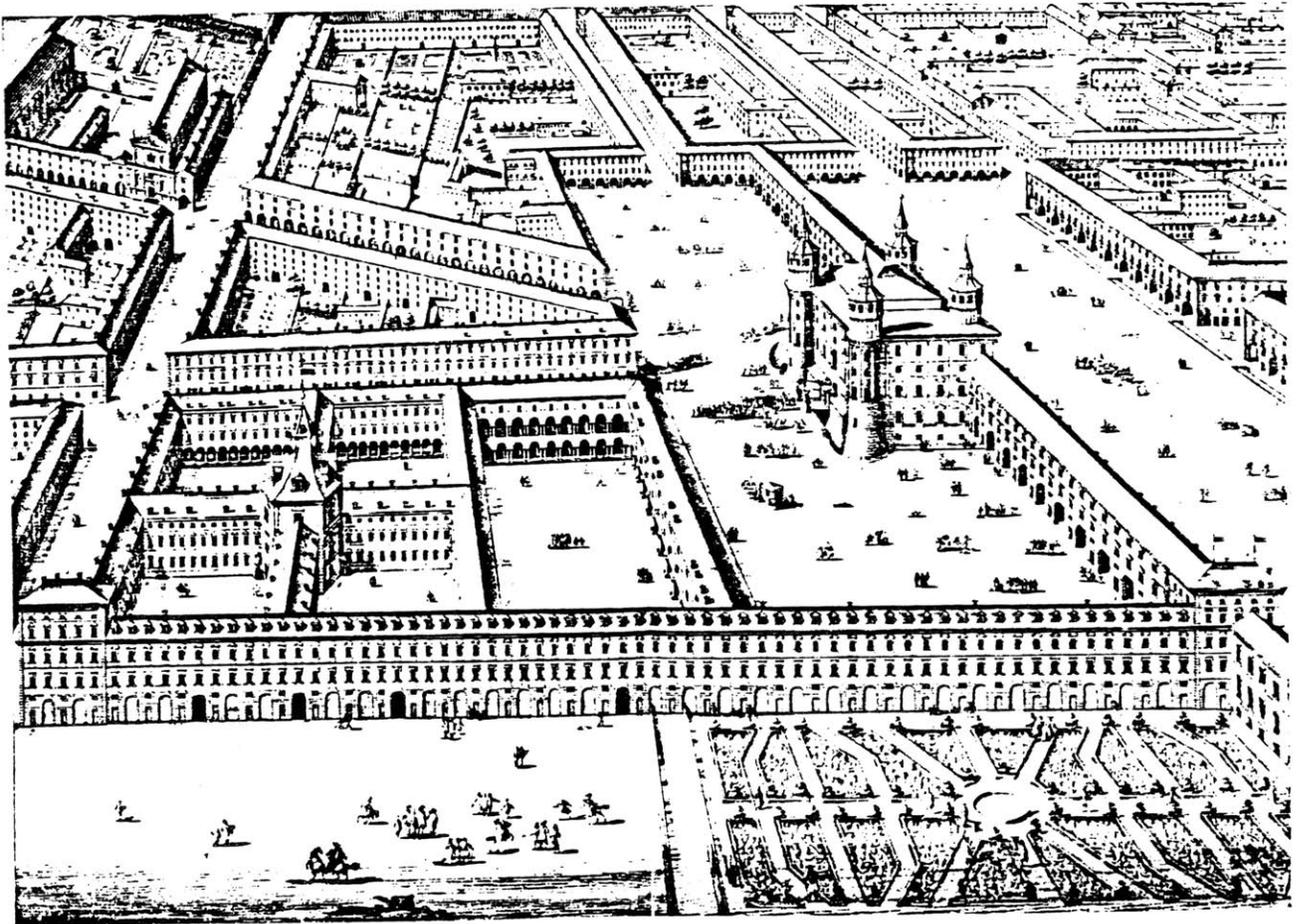
49. Elevation of Porta di Po, 1686, G. Guarini, Disegni d'architettura....



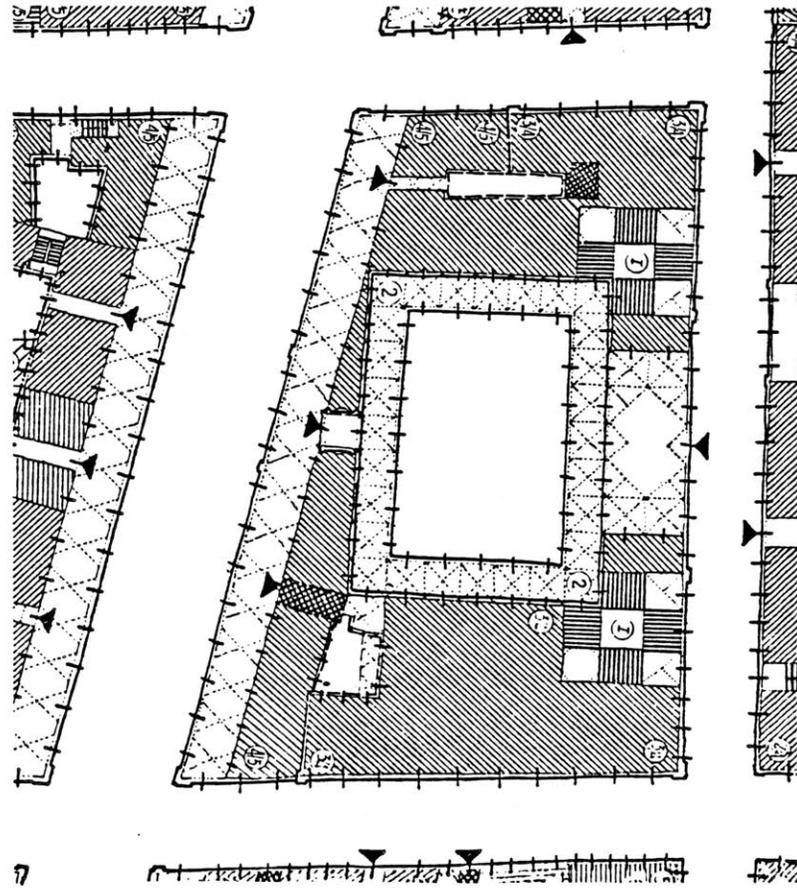
50. Plan and elevation of Porta di Po, 1682, T. Borghioni, Theatrum.



51. View of Turin from east, 1722, F.Juvarra, Disegni di fuochi....



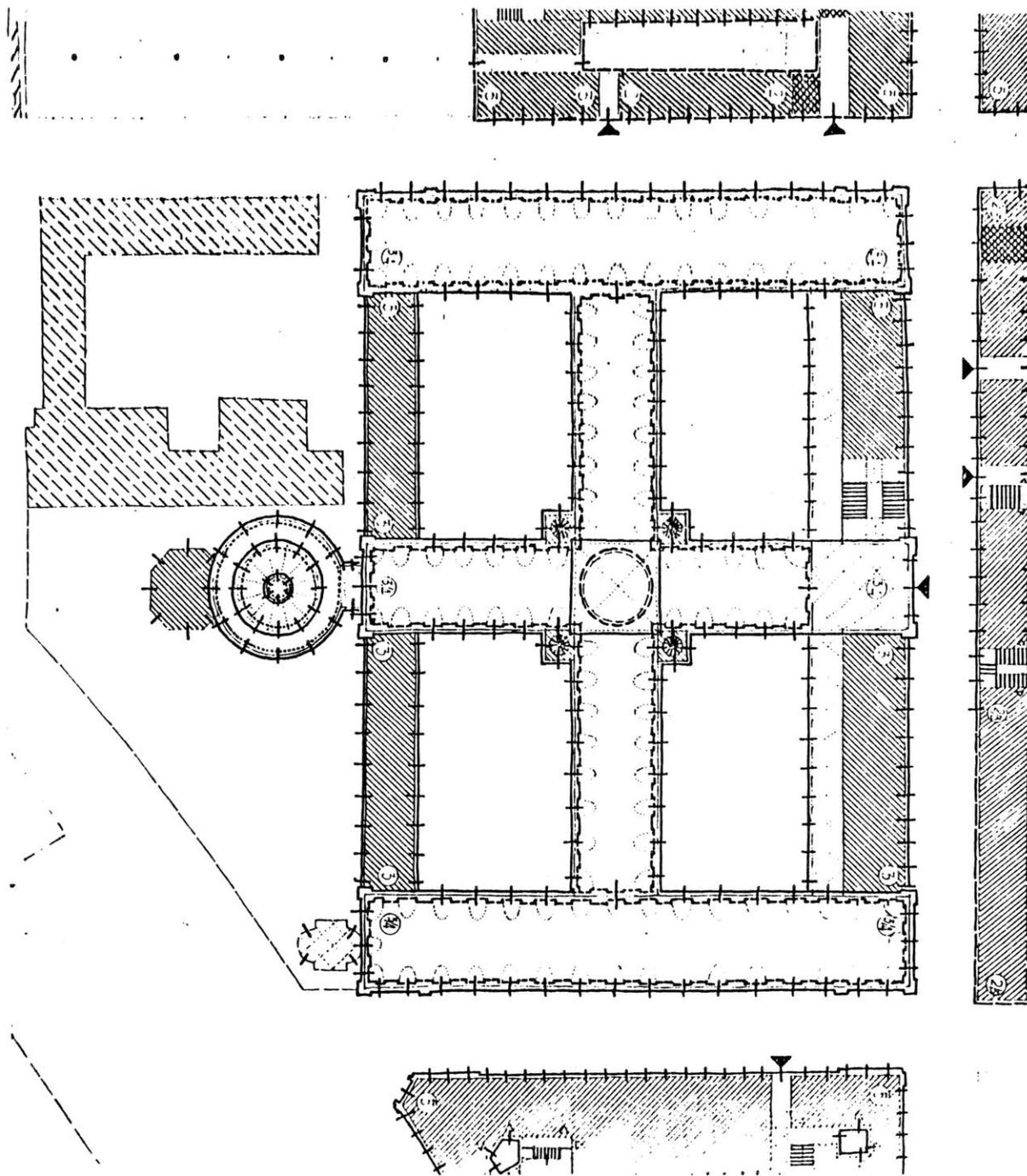
52. View of Piazza Castello. 1682, T.Borgonio, Theatrum.



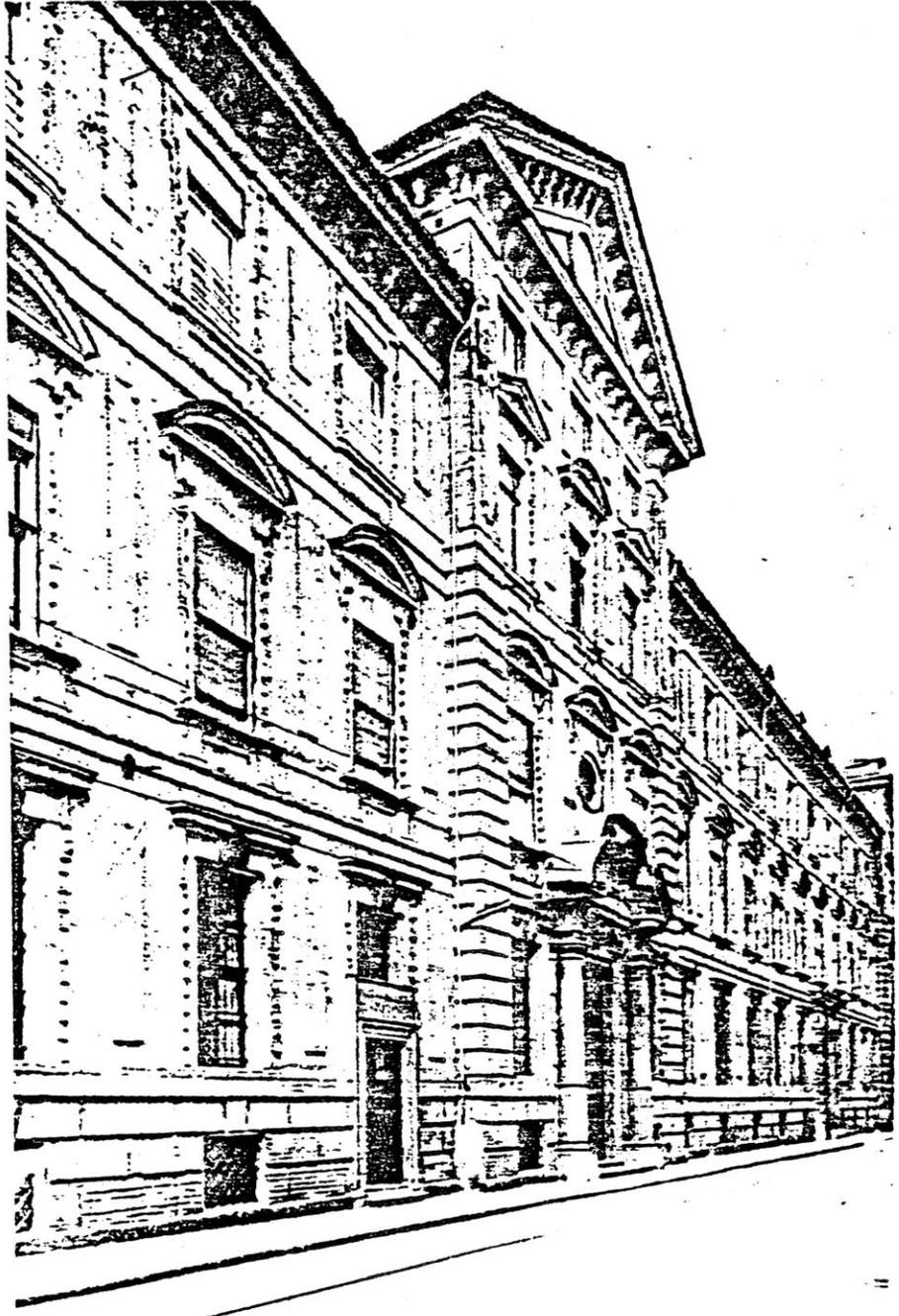
53. Plan of the Universita, 1968, Forma Urbana.



54. Plan of Ospedale della Carita, 1968, Forma Urbana.



55. Plan of Ospedale di San Giovanni, 1968, Forma Urbana.



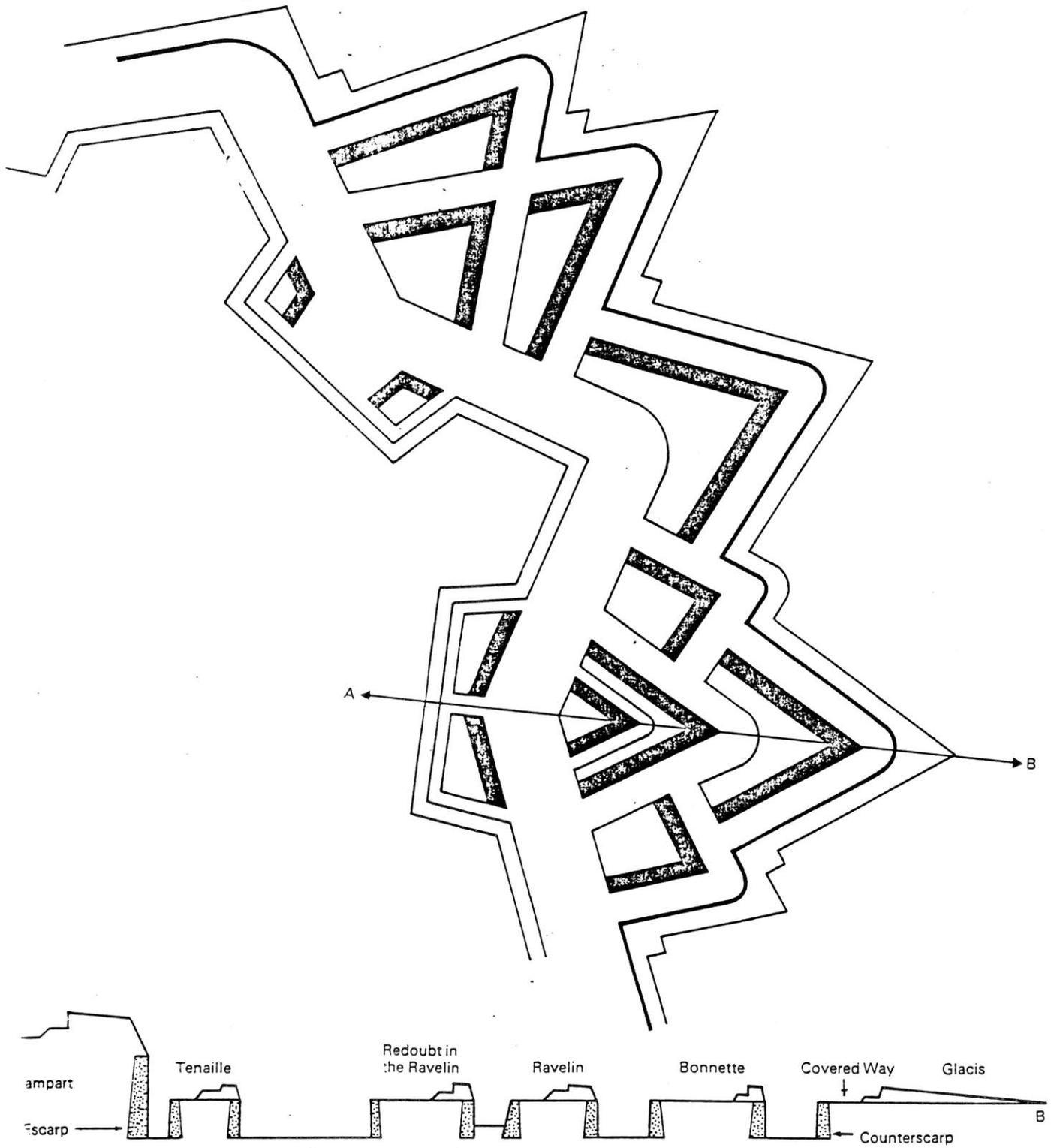
56. Main facade of Ospedale di San Giovanni, 1968, Forma Urbana.



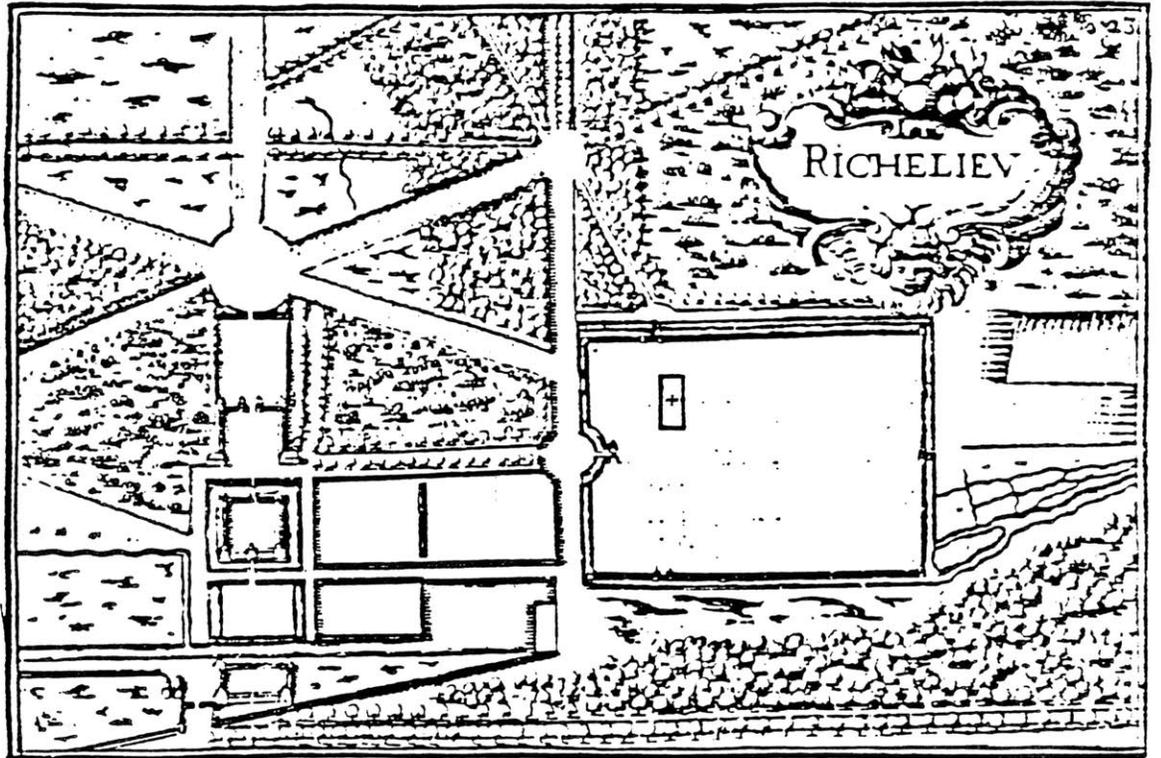
57. View of Piazza San Carlo (Reale), 1682, T. Borgonio, Theatrum.

58. View of Piazza Castello, 1682, T. Borgonio, Theatrum.

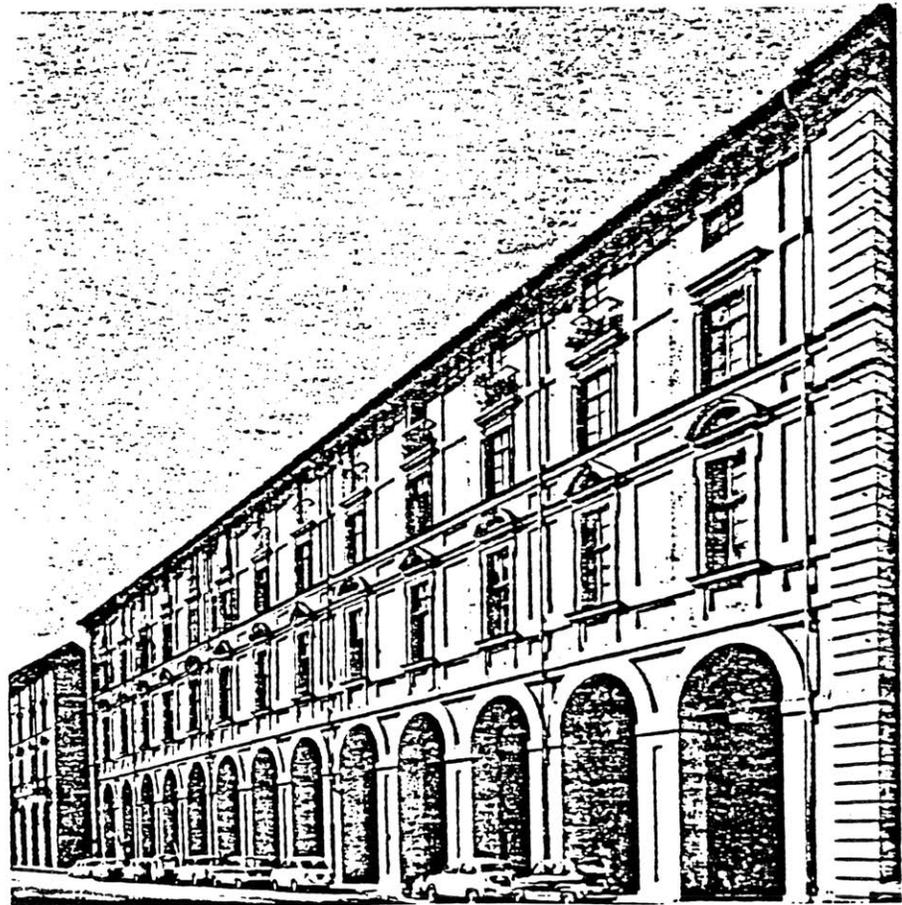




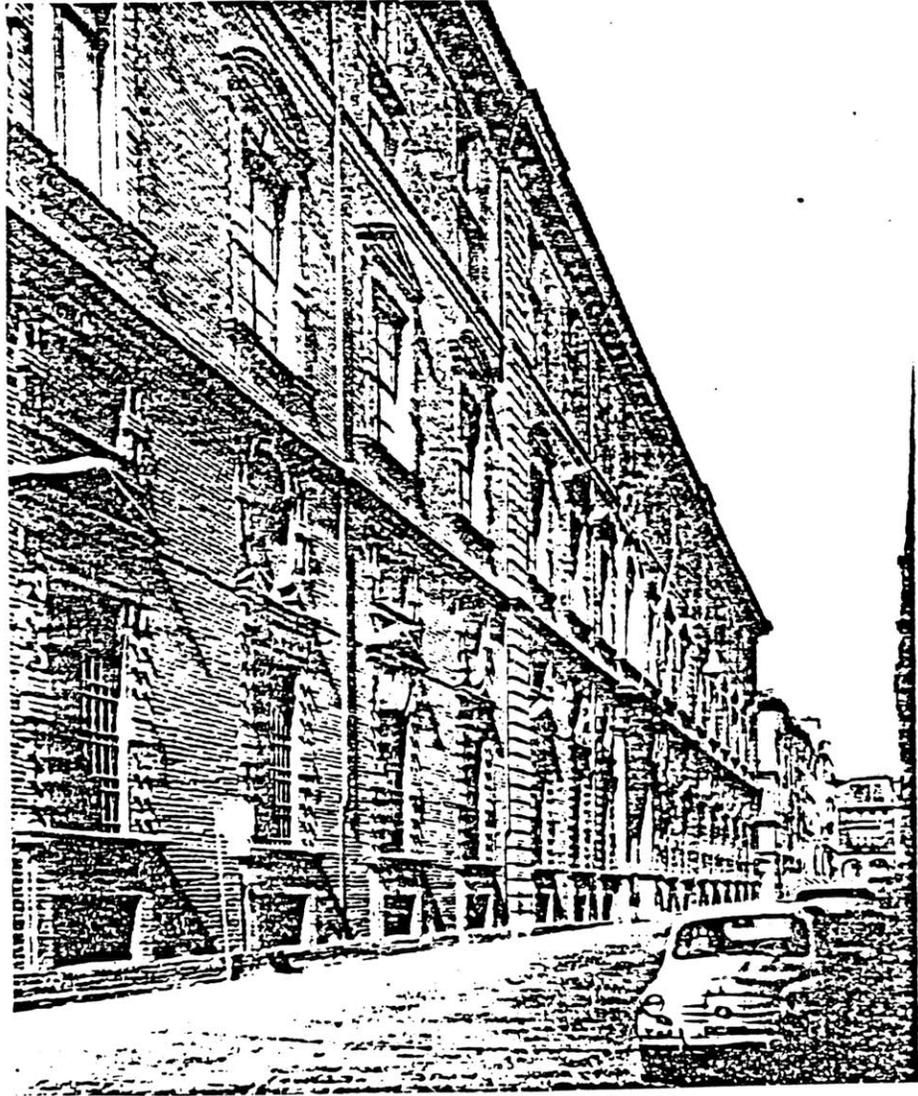
59. Plan and section of bastioned trace, 1975, J.V. Hogg.



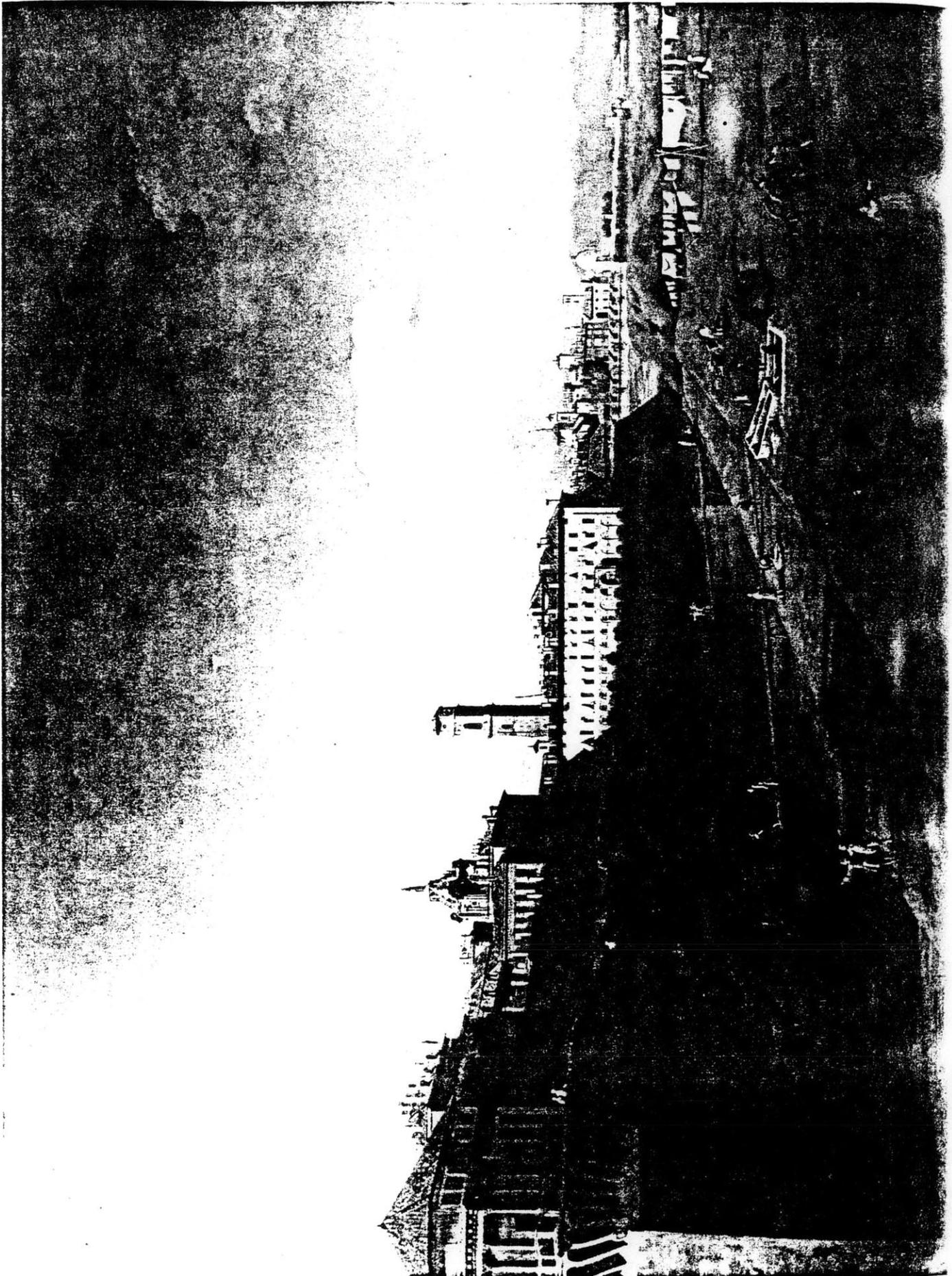
60. Plan of Richelieu, 1638, N. Tassin, Les plans et profiles....



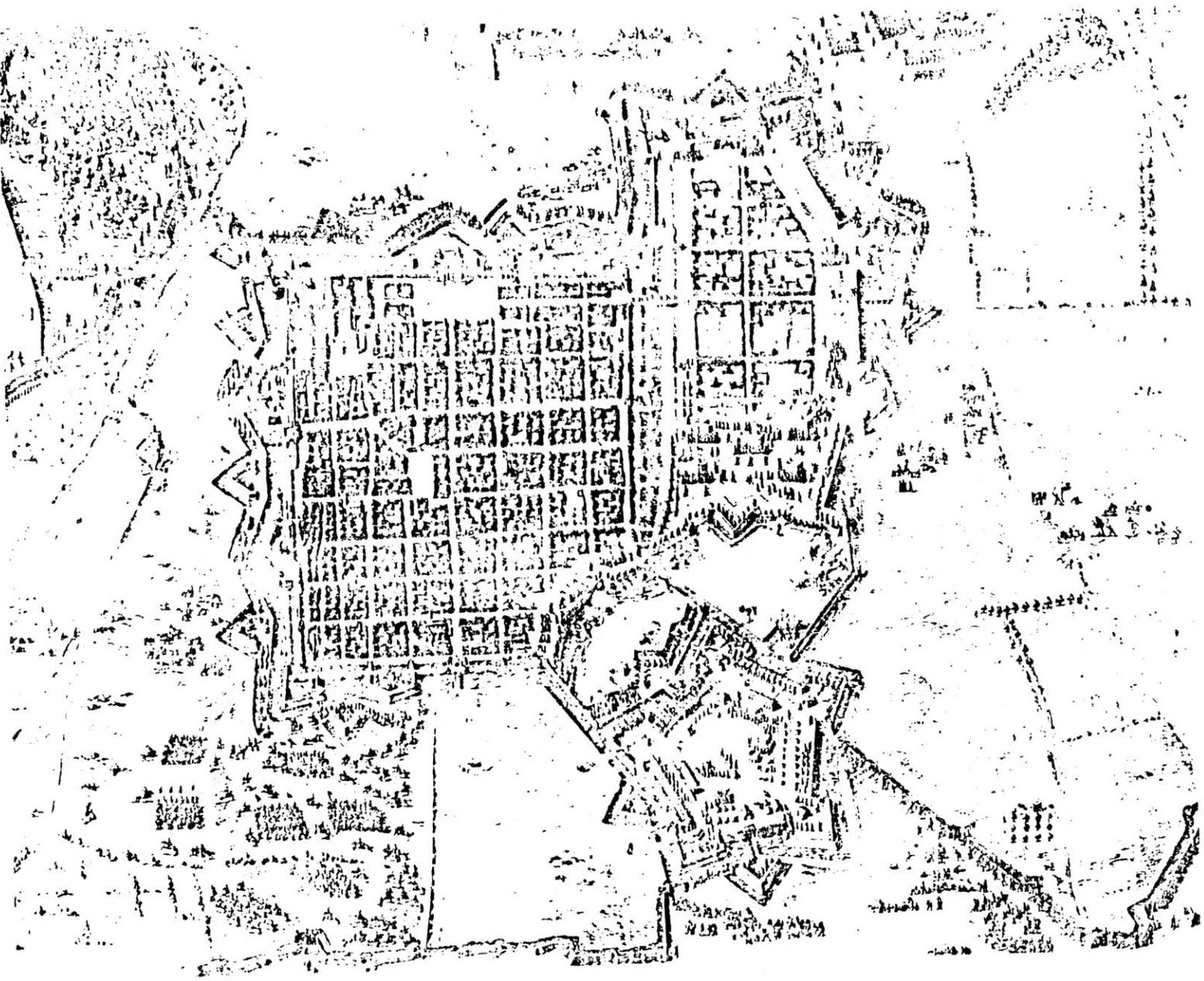
61. View of block on Contrada di Po, 1968, Forma Urbana.



62. Facade of the Università on Via Verdi (Contrada della Zecca),
1968, Forma Urbana.



63. Fortifications of Turin, 1750's, B.Bellotto, Galleria Sabauda.



64. Plan of Turin under siege, c.1640, G.Boetto, BR.