Throughout the Middle Ages, the University of Padua, like universities in other European cities, maintained a sort of symbiosis with the surrounding urban environment as regards the use of physical space. The scattered network of sites and premises that it occupied mirrored a complex institutional organisation based on the principle of ‘academic freedom’ and student independence. The buildings used for teaching purposes, for study and meetings, but also for lodgings bore no particular signs that distinguished them from the rest of the urban fabric. They were often borrowed from other institutions and were essentially multi-functional. The pervasive presence of the university in Padua was, at all accounts, no different from the situation prevailing in all the major university cities in Italy and the rest of Europe. To quote Jacques Verger: ‘…in topographic and social terms the university lay at the heart of urban life everywhere’.¹

Things began to change during the 1400s when, especially in Italy, the demand grew for universities to be provided with permanent

architectural structures with discrete functions, such as buildings where all teaching activities could be performed.\(^2\) In all cases, essentially practical, functional reasons were associated with the purposes of a more political nature: it was felt that the construction of a monumental academic building would make a contribution to the prestige of the institution and be a concrete expression of the reaffirmed role the university was called upon to play in the organisation of the nascent modern state.\(^3\) Therefore, it was during the 1500s that the principal university buildings appeared, and Padua was amongst the first cities where this occurred.

The first stage in the creation of a specific building for the exclusive use of the *Studio* of Padua is indicated by a real estate transaction that took place on 6 August 1493, when the principal of the *università dei giuristi* (Faculty of Law) entered into a contract with the Bonzanini family for the lease of a series of rooms to be used for teaching purposes in the building that had been known since the second half of the 1300s as the *hospitium bovis*.\(^4\) However, before considering its political or cultural significance, the operation should be seen as important in terms of its repercussions on the urban systems of the area: the building stood at a primary intersection in the city’s layout, at the centre of the network of streets linking the market squares – where the main institutions, including the court and public offices, were also located – and the productive areas of the city.\(^5\) It was here that the Palazzo dello Studio of Padua was built over the next few decades.

The early decades of the 1500s saw substantial changes in the organisational structure of the University of Padua. Following


The restoration of activities, which were forcibly interrupted between 1509 and 1517 because of the war, the Republic of Venice established a new office of state responsible for cultural policy – the *Riformatori dello Studio*. When this new *magistratura* began operating on a permanent basis after 1528, the University of Padua in effect became the State University (*Studio dello Stato*), and as such, it was one of the cornerstones of the Republic’s international prestige and a source, not only of cultural enrichment, but also of considerable financial revenue. Therefore, it became increasingly desirable that the university occupy a building that was clearly identifiable as well as providing teaching facilities. Thus, in 1545, the Venetian Senate issued two decrees: one for the creation of a new university building; and the other for the establishment of the Botanical Garden.\(^6\)

The set-up of a construction site for the new university building can be dated fairly accurately based on a document dated 1 May 1547, which records a payment to Andrea Moroni for a year’s work as *proto* (i.e. project manager). The work continued in several stages until the early 1600s, and in effect, involved the transformation of the structures that had become clustered around the courtyard of the ancient and celebrated *hospitium bovis* over the centuries.\(^7\) As mentioned above, part of the latter building was used for lecture rooms by the Faculty of Law starting in the 1490s and by the Faculty of Arts from 1542. Once the two faculties were brought together and all the required premises had been duly purchased, the Venetian Senate delegated the task of rebuilding the complex to the *Riformatori allo Studio* with the aim of having it reflect, in dignity and magnificence, the representative role the State University now played. To this end, the main effort was directed towards the construction of the monumental courtyard in a rigorously elegant *all’antica* architectural style that would express the Senate’s ideological ambitions, and at the same time, improve the functionality of the existing buildings that were only partly affected by the reconstruction work.\(^8\)

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\(^6\) For the Botanical Garden: 31 July 1545; for the Palace of Studio: 8 August 1545; see: Zaggia, *L'università di Padova*.


There was no generally accepted constructional tradition for university buildings, so the chosen plan -- of a square courtyard surrounded by lecture rooms -- was intended to recall the layout of the Athenian academies or Ancient Greek gymnasia, which were mentioned in literary works and by Vitruvius, but no known examples of which were known to exist. The allusion to classical tradition, and to the Greek world in particular, was further emphasised by the adoption of two levels of loggia, comprised of columns supporting unbroken entablatures. Such deliberate references to Antiquity were accompanied by other cultural associations. As has already been observed in the past, the architectural orders in the Palazzo del Bo feature numerous analogies to those of the Libreria Marciana in Venice, the most important building to be erected for cultural purposes on Venetian territory in the 1500s, and a manifesto for the policy of *rinovatio* promoted by the Republic. In noting these connections, I am not putting forward an attribution theory as much as suggesting a cultural, but also political and ideological, link between the two buildings. It is a dialogue that the observer perceives in an allusive manner, rather than through a structural or compositional similarity, by recognising details that imply a common ‘tonality’ and an erudite striving to associate with Antiquity. Indeed, the two buildings cannot be compared in regard to structure or composition. It was intended that the Palazzo del Bo unequivocally stand out as the headquarters of the Venetian State University, and as such, was seen as an expression of public magnificence, connoted by the adoption of a specific interpretation of an ancient idiom. As work on the Palazzo dello Studio progressed through its various phases, the Botanical Garden was started and finished. Its institution and construction took place in response to the modernisation of scientific practices and gave rise to the establishment of a new professorship tasked with teaching a discipline that hitherto had been treated only fleetingly in the courses required for a medical degree, i.e. a course designed to teach students to recognise the various plants that were used for medicinal purposes. It was the student body that, back in 1532, made an explicit request to the

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Signoria to institute a ‘new course in medicinal herbs, the study of which is a very useful and necessary aspect of medicine’. It was quickly realised that the successful teaching of the subject was being compromised by the lack of botanical materials suitable for direct observation. Above all, it was the lecturer and medical doctor Francesco Bonafede (1474–1558) that submitted insistent requests to the Riformatori allo Studio for an appropriate teaching aid to be made available. The demand for an innovative solution was supported at the highest levels of the university, and proposals were made repeatedly in subsequent decades. Eventually, on 31 July 1545, the Venetian Senate approved a resolution to establish a Garden of Medicinal Herbs for the use of the University. The formal decision would appear to have been during the final stage in a long debate, which had started with an initial series of generic proposals and culminated in a financially onerous plan that reconciled the specific needs with the political imperative of ensuring the general benefit. In fact, the Senate voted when operations were already well underway: the detailed implementation arrangements are described in the resolution, and it already specifies the existence of a plot of land on which the garden will be created: ‘pro plantatione simplicium, et distinguere in quadros secundum consuetudinem hortorum simplicium’. Daniele Barbaro, then a recent graduate, was appointed to oversee the project with the assistance of Doctor Pietro da Noale and Andrea Moroni, the architect.

The currently available sources make it possible to trace at least three main stages in the construction of the Botanical Garden during

11 [Sanudo, I Diarii, vol. 56, col. 398.]
13 Archivio di Stato Venezia, Senato Terra, reg. 34, cc. 57v–58v.
the 1500s. The first phase lasted about three years (ca. 1545–1548), during which the layout was decided and specimens were planted so that material was immediately available for teaching purposes. The second phase (ca. 1552–1557) saw the consolidation of the complex and the construction of permanent stone elements, including the circular enclosing wall and portico facing inwards from the wall. Later, towards the end of the century, additional work completed the physical structure, and the extensive transformation of the hydraulic systems in the area was undertaken to ensure a good supply of water for the garden.\footnote{Zaggia, \textit{L’università di Padova}, 91–121.}

There must have been a model, a pre-defined plan underlying the construction. This is clear from the account of the chronicler Marco Guazzo who, already in the autumn of 1546, provided the following description: the overall layout of the garden was circular in shape with an inner square that was sub-divided into four smaller squares (raised plant beds); the spaces outside the circle were arranged with reference to Antiquity (for example, he mentioned a \textit{hippodrome} and a \textit{labyrinth}); and finally there was a proposal to erect a structure around the raised plant beds that would provide ‘shade throughout the day at the height of summer and space where plants could be placed to protect them from cold and ice during winter’ and where visitors and students could stroll or rest, i.e. a porticoed walk around the \textit{hortus sphericus}. In the end only a part of this loggia was actually built.\footnote{\textit{Ibidem}, 112–115.}

A comparative analysis of the literary descriptions, illustrations and, archival documents, along with the structures that had really been completed (and setting aside the question of whether it was first to achieve this or that) reveals the truly innovative feature the Paduan Botanical Garden, i.e. that it was a \textit{forma nuova} designed to perform two tasks – the cultivation and display of medicinal herbs. This dual function – to show and conserve – reflected its role as a didactic resource providing specimens for teaching activities and medical experimentation, but also its connection to the control of pharmacological materials used in the apothecaries throughout the territories ruled by Venice.\footnote{Vittorio Dal Piaz, Maurizio Rippa Bonati, ‘L’Horto Medicinale dello Studium Patavinum: progetto e rappresentazione’, \textit{L’orto botanico di Padova}, ed. by Alessandro Minelli (Venezia: Marsilio, 1995), 33–54.} In short, although the
Ortus Sphericus in Padua was based on the traditional monastic garden of simples, its ground plan embodied its representative function and seems to be derived more from a theatrical model. Within a few years of its completion, the theatrical metaphors often appeared in descriptions. A new *forma* then, simple and rational and consistent with the Vitruvian principles of a harmonic relationship between form and function. Thus far, historians have searched in vain for reliable evidence that could provide the definite name of the garden’s designer. I believe the question should be rephrased in the light of the garden’s complex beginnings: the model, the idea of the garden should be seen as the result of contributions made by several persons rather than the work of a single individual. The foremost of these would have been Daniele Barbaro, assisted no doubt by the university lecturers, as well as the Riformatorio allo Studio (including Sebastiano Foscarini), and certainly the architect Andrea Moroni, who supervised the actual work.

**The University of Padua in the Age of Enlightenment: new needs and new structures within the urban fabric**

During the early 1700s the University of Padua, like most European universities, was in a critical situation. The teaching system had been increasingly impoverished during the 1600s and the university headquarters had lost the cosmopolitan prestige it had once enjoyed. Proposals for reforming the system were made from several directions during the century of the Enlightenment and these were partially enacted during a reorganisation of the University in 1761.\textsuperscript{19} At the same time, additions had been made to the traditional buildings and teaching facilities, but everything was still taking place in the spaces created during the Renaissance.

An attempt to enlarge the Palazzo del Bo by creating an appropriate site for the University Library was made in the first decade of the 1700s. The library was founded in 1629 and housed in the prestigious Sala dei Giganti in the Capitaniato, but this gradually

proved too small for its purpose. The need to find new premises or expand those already available was first declared in 1696, and Cerato Frigimelica Roberti (1655–1732) called for more space to be devoted to the library in his first report as Chief Librarian. His initial proposal was to enlarge the existing building. Girolamo Frigimelica was one of the most important Paduans of his time, not only because of his literary interests, but also by virtue of his ability as an architect.

After prolonged discussions and several proposals, a decision was finally taken in 1716, when the Riformatori resolved to move the library to the Palazzo del Bo and purchased an adjoining building belonging to the Capodivacca family. The official decision was approved by the Venetian Senate on 3 December 1716 with a decree providing for the acquisition of the private dwelling destined to become the site of the new public library. The commission, which was elected to oversee the creation of the new building, was comprised of Giovanni Poleni, a celebrated teacher of astronomy, mathematics and physics as well as a noted expert in architecture and Vitruvius, Antonio Bombardini, a lecturer in canon law, and Girolamo Frigimelica, the director of the library. The Riformatori proceeded to commission Domenico Margutti, the proto of the Procuratori di San Marco de supra, to draw up an initial set of plans, which he submitted for approval on 18 August 1717. His project provided for the construction of a rectangular building for the main hall and a smaller structure for the entrance, leading onto the southern side of the courtyard of the Palazzo del Bo. The buildings were to have two main floors: a ground floor to be used for storage and a double-height second level for the oval, vaulted entrance hall.

20 Tiziana Pesenti Marangon, La biblioteca universitaria di Padova dalla sua istituzione alla fine della Repubblica veneta (1629–1797) (Padova: Antenore, 1979).


23 Pesenti Marangon, La biblioteca universitaria di Padova, 80–81.

and a large, rectangular reading room, with shelves on two levels and two registers of windows with elaborate cornice mouldings, surmounted by a barrel-vaulted ceiling with lunettes. The exterior facade was to be richly decorated: with a series of rusticated columns alternating with arches decorating the main body housing the reading room at the ground floor level, and five giant Doric columns at the upper level interspersed with recesses containing the two registers of windows.

However, Margutti’s project was immediately disparaged by the commission, especially by Girolamo Frigimelica, who criticised the excessive cost, and above all, the fact that the design failed to comply with the theories of Vitruvius. Taking account of the criticisms expressed during the meetings to evaluate Margutti’s plans, Girolamo Frigimelica drew up an alternate project, and presented two versions of it: one had an entrance hall and the other did not. We know that, in addition to the drawings, he had his assistants prepare two scale models, one in cardboard and the other in wood, to aid his presentation. In December 1717, the Riformatori decided to abandon the Margutti project in favour of Frigimelica’s. In his introduction to the six drawings, Frigimelica explained that he had based his proposal on Vitruvius’s writings on the Egyptian Hall, and stressed that his sober, simple solutions for interior ornamentation were strongly influenced by considerations of cost. His proposals for the exterior facades were also as simple as possible: ‘they have no ornament save that which depends on simplicity and proportion’. The surviving drawings bear out these theoretical arguments: the interiors feature a restrained elegance, and the exterior a functional, austere simplicity with smooth columns and arches at ground floor level, and coupled pilasters, unadorned to the point of abstractness by the elimination of all mouldings, at the upper levels.

The foundation stone for Frigimelica’s version of the project, with an oval entrance hall that was linked to the south staircase of the Palazzo del Bo, was laid at the beginning of May 1718. Work continued for a number of years, but due to a series of unforeseen circumstances and

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26 Zaccaria, *L’architetto Girolamo Frigimelica*.
27 Ibidem, 92.
financial complications, the building was never completed beyond the ground floor storerooms, over which a provisional roof was constructed in 1730. Later, around mid-century, the space intended for the entrance hall was used to house the ‘Theatrum philosophiae experimentalis’ containing the scientific instruments collected and used by Giovanni Poleni in his research.

Thereafter, interest shifted to the other research facilities needed by the university. The Botanical Garden was seriously damaged by a thunderbolt in the early 1700s and the subsequent refurbishment work included repairs to the circular surrounding wall, the creation of new greenhouses, the raising of the cultivation beds and design of new ones; later, measures introduced by the 1761 reform led to the opening of a school ‘ad rem agrarium’, with land near the Prato della Valle being organised as a garden with space for cultivation, in order to satisfy the new didactic requirements.

The other large-scale building project of the period included an astronomical observatory. As early as 1749, Giovanni Alberto Colombo (who held the post of Professor of Astronomy and Meteorology until 1764), called for a Specola to be built, a tower from which he could conduct his astronomical observations. The discussions were long and laborious, as was often the case in the Venetian departments of state. Not until 1761 did the Riformatori allo Studio decide to begin allocating financial resources for a new observatory. A few years later, Giuseppe Toaldo, the newly appointed Professor of Astronomy and Meteorology, was tasked with visiting various European observatories with a view to making a specific proposal. Initially, the idea was to use the existing tower or to build a new one inside the Palazzo del Bo, but this proved difficult. Eventually, following an analysis of the statics of the proposed site carried out by Antonio Giuseppe Rossi, the Venetian Mathematician Laureate, it was decided to use the tower of the Carrarese Castle. A decree to this effect was approved

28 Pesenti Marangon, La biblioteca universitaria di Padova, 84.
29 Il Teatro di Filosofia sperimentale di Giovanni Poleni, ed. by Gian Antonio Salandin, Maria Pancino, Giovanni Poleni (Trieste: Lint, 1987).
31 Luisa Pigatto, La Specola di Padova. Da torre medievale a Museo (Padova: Signum, 2007).
32 Ibidem.
by the Venetian Senate on 5 January 1767 and Domenico Cerato was appointed to convert the Torlonga together with a number of adjoining buildings, to reorganise the mediaeval structures to comply with the scientific requirements of his friend Professor Toaldo and provide accommodation for the academic staff. The work, which involved the radical transformation of the ancient buildings, started immediately and was completed in about ten years.

AN UNREALISED PROJECT FOR THE TRANSFORMATION OF THE URBAN LANDSCAPE: GIUSEPPE JAPPELLI’S PLAN FOR THE UNIVERSITY (1824)

The reforms attempted by the University of Padua in the late 1700s and the new didactic facilities located in the urban landscape did not completely comply with the requirements of modern teaching methods. Issues concerning the modernisation and upgrading of the historic university headquarters continued to be the subject of discussion in the early 19th century, during the periods of both French and Habsburg rule. Indeed, what to do about the Palazzo del Bo remained the foremost planning issue in Padua for most of the 1800s: numerous projects were drawn up in attempts at reorganisation in line with academic needs, but until the Unification of Italy no organic construction scheme was ever carried out.

However, in this context, it is worth recalling the innovative proposal made in the early years of Austrian rule by Giuseppe Jappelli (1783–1852), Veneto’s leading architect in the 19th century.


The project originated in response to the wishes of Viceroy Ranieri; compared with the solutions suggested up that point – all involving either an enlargement of the Palazzo del Bo or transfer of the university headquarters to the Capitaniato area – Jappelli’s suggestion was totally innovative. He proposed the building of an enormous, entirely new complex around a square courtyard in the Prato della Valle, the vast square that had been laid out in 1776.37

The project was never carried out, but the surviving plans show the care that Jappelli exercised to ensure the appropriate insertion of the complex into the urban landscape: the links between the existing university institutes (the botanical garden, hospital, monastery attached to the Basilica of Sant’Antonio); the paths and promenades intended to reinterpret the functions of the embankments along the enclosing walls; the orientation of the complex in relation to the nearby roads and river. If the great architectural complex, immense in scale, and in its form, quite independent of its physical context, seems to confirm Manfredo Tafuri’s appraisal of Jappelli’s planning approach as being rooted in the idea that the presence of the new complex should respond to the needs of the new city38; then the analysis conducted through the graphic elaboration of the architectural drawings, which is designed primarily to see how a three-dimensional model would fit into real space, have highlighted an aspect of Jappelli’s proposal that had already been recognised by Werner Oechslin39. He stressed the urban character of the architectural complex and how the force of its size would recast the role of the Prato della Valle: a public forum and a university square, a monumental setting designed to celebrate Paduan culture. Therefore, the positioning of this great architectural ‘macchina’ would have brought about radical changes, and not just changes of image. For example, let’s look at the role that the Basilica of St Anthony would

37 Stefano Zaggia, “‘Isolaetta sacra al commercio ed all’arti”. Andrea Memmo, Melchiorre Cesarotti e il Prato della Valle come esperimento di riforma del paesaggio urbano’, Melchiorre Cesarotti e le trasformazioni del paesaggio europeo tra illuminismo e romanticismo, ed. by Fabio Finotti (Trieste: EUT Edizioni Università di Trieste, 2010), 112–128.

38 For Manfredo Tafuri’s opinion see: Giuseppe Jappelli e il suo tempo, ed. by Giuliana Mazzi (Padova: Liviana, 1982), 652–657.

have had to assume: a sort of university chapel. In fact, one of the
drawings that illustrates the impact of the new complex on the area
as a whole shows the Botanical Garden as linked to the Basilica
via a raised walkway; the caption says: ‘raised walkway leading to
the Basilica del Santo, which serves for the religious services of the
university’40.

In short, Jappelli’s approach on this occasion was informed by an
idea of ‘the re-functionalisation’ of the city, of the reorganisation of
the urban landscape, starting with the transformation of specific
urban nodal points, in this case the south-eastern part of the city,
which were located inside the old city walls between the Basilicas
of Sant’Antonio and Santa Giustina. In this solution the university
buildings would have performed a primary role, but this was not
followed up until the early 1900s.

Stefano Zaggia: The University of Padua in the Renaissance and
the Age of Enlightenment: The New Academic Building and the
Definition of Urban Space

Keywords: University of Padua; Palazzo del Bo; Renaissance;
Enlightenment; university ensemble; botanical garden; Girolamo
Frigimelica; Giuseppe Jappelli

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40 Musei Civici di Padova, Gabinetto di disegni e stampe del Museo d’Arte, inv. 1337; Archivio
di Stato di Venezia, Governo veneto, II Dominazione austriaca, allegati 1827, b. 183, tav. II.
L’Università di Padova nel Rinascimento. La costruzione del palazzo del Bo e dell’Orto Botanico (2003); Fare la città. Salvaguardia e costruzione urbana a Venezia in età moderna (2006); Metamorfosi Negate. I progetti non realizzati di Giuseppe Jappelli per Padova (2012); Il cortile Antico del Palazzo del Bo a Padova (2015); Domenico Cerato. Architettura a Padova nel Secolo dei Lumi (2016).