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KATHOLIEKE UNIVERSITEIT LEUVEN

The Chimio Building on Solonos Street, Athens: Documentation and Reuse

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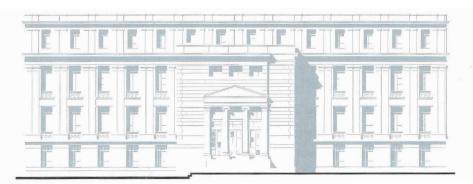
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Thesis to obtain the degree of Master of Conservation of Historic Towns and Buildings Presented by **Stamatina Mikrou**



LEUVEN, JUNE/SEPTEMBER 2003

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Leuven, 2003

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My promoters, Professor Maro Kardamitsi-Adami for her generous help including suggestions, comments, valuable books from her personal library and her initial idea –proposal to study the particular building in the framework of this dissertation; Professor Barbara Van der Wee as well, for her precious help regarding both guidelines and useful remarks and observations during the course of this thesis and during the Integrated Project Work of the First Year at RLICC.

Special thanks also to the Architects D. Pandazis and M. Tilianakis for providing sets of drawings of the Old Chimio as in its actual state and as in the proposal for the Rehabilitation of the Building.

Last but not least I would like to thank the passionate supporter of the Museum of Natural Sciences and Technology, Mr Hrisoleonda Simeonidi for his explanations and "guided tours" around the rooms of the Old Chimio.

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INTRODUCTION

The object of this study is a 19th century edifice originally built to house educational activities. Founded in 1887 and completed by 1890, the Old Chimio, on Solonos Street 104, was designed by Ernst Ziller, one of the most productive and well known architects of his time with a major contribution to the formation of the neoclassical face of Athens. Despite the fact, the building does not stand out for its architectural values. Its current aspect has been the result of subsequent modifications: the building suffered major damages during a conflagration that burst out some twenty years after it was completed. It was then renovated; new materials and techniques were applied and a new storey was added on the top of the two existing ones. Another twenty years later or so, the addition of one more storey totally altered its proportions.

Yet the historical values of the building are undeniable: erected on the respective European Prototypes, this was among the first edifices of the National Kapodistrian University and certainly the first where the Natural Sciences have been systematically taught and progressed. Moreover than that the Chimio has been associated with significant historical moments and facts of the country (war times, expedition to minor Asia, dictatorship years (1967–1973)).

The Old Chimio served as the house of the Departments of Chemistry and Physics of the University until almost a decade ago. From that time onwards the building, together with its exceptional equipment that still survives in situ, has practically been neglected, subject to a continuous deterioration. The Chimio is still a Landmark of Solonos Street, but unfortunately a very sad one.

In recent years the debate regarding the revalorization of the building turns on and off. Luckily there is an increased interest regarding the reintegration of the Chimio into actual life but there are also strong arguments and counter arguments within the community of the University as far as the New Use is concerned, so that the brave decision to reuse the building cannot be taken at the end.

Being so, this has been selected as a very interesting topic to deal with in the framework of the Master's Thesis at the RLICC. The study aims to develop a Rehabilitation Proposal for the Chimio, implementing the principals of Conservation as defined by international charters and conventions and taking into consideration the various case studies presented and the methodology suggested at the Center during the First Academic Year.

The thesis is composed of two parts: Part one, divided in four chapters, attempts a thorough documentation of the building through the study, comparison and analysis of the material gathered either by archival and bibliographical research or by in situ recording. Part two, divided in two chapters, composes the results of the analysis into what forms the basis for the elaboration of a Global Plan of Conservation referring to the Reuse of the Old Chimio.

1.1 SOURCES

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In order to assemble material that could provide testimony as to the building's past a historical research was carried out including the study of archival and iconographical sources as well as a selected bibliography with direct or indirect references to the Old Chimio.

1.1.1 Main archival sources have been the following:

The Historical Archive of the University of Athens:

- * A series of publications, the so called "Deans' Speeches". These are reports by the each time Dean of the University presented at the end of his service, in which he usually gives detailed account of his action, the major problems he faced, the most important projects he undertook. The following speeches that coincide with most significant moments of the Old Chimio were studied and indeed proved to be a valuable source of information regarding the documentation of the building:
 - i. Speech by Georgios Karamitsas, Dean during the Academic Year 1886-1887
 - ii. Speech by Theodoros Afendoulis, Dean during the Academic Year 1887– 1888
 - Speech by Anastasios Christomanos, Dean during the Academic Year 1896– 1897
 - iv. Speech by Spiridon Lamprou assuming the duty of Dean on 26th February 1912
 - Speech by Ioannis Mesoloras Dean during the Academic Years 1914–1915 and 1915–1916
 - vi. Speech by Vasilios Aiginitis, Dean during the Academic Year 1926–1927
- A set of unbound documents entitled "Enrichment of the Chimio Acquisition of Equipment and Material for Teaching" regarding the periods 1837–1840, 1860–1871, 1878–1880, 1888–1905. A huge amount of ordering lists, shipping invoices, receipts of acquisition and delivery, correspondence among the Director of the Chimio with the Dean of the University discussing the needs of the laboratories, correspondence among the Director of the Chimio and European Firms–Providers of equipment, materials and devices for experiments. The documents examined provided no real information regarding the edifice itself or its unmovable equipment, yet this is considered to be a useful source of information for the scientific team dealing with the recording of the movable equipment of the Old Chimio.

The General Directorate of Property and Finance of the University of Athens:

Correspondence and Documents that refer to the recent years of the Chimio and almost exclusively regard demands for repair and maintenance works that need to take or took place, their cost etc. Of particular interest is a project for a new Parking in the place of the Garden of the building, accompanied by a proposal for the rearrangement of the Southern Façade so that it would better fit with the Architectural Style of the New Chimio, already built by that time in its backyard. This project has luckily never been executed.

Archive of Newspapers reserved at the Benakeios Library.

The catalogue of the Press Archive held at the Benakeios Library includes two newspapers in circulation at the time that the fire of the Old Chimio took place; that is in August of 1911. These are the Newspaper "Acropolis" and the Newspaper "Agon". In fact the microfilm of the Newspaper Agon was claimed misplaced –therefore inaccessible–, while the leaflet of the Newspaper "Acropolis" dating 17 of August 1919 presents a very detailed description of the fire accident of the Old Chimio.

Another possible source of information has been considered the **Technical Services Directorate of the University of Athens.** However, it seems that there is no systematic archive kept there and therefore access to any relative material held in these premises, was not possible at the end.

1.1.2 Iconographical Sources

A set of drawings bearing the signatures of Ernest Ziller –the Architect– and Theodoros Afentoulis –the Dean of the University during the Academic Year 1886–1887– reserved at Ziller's Archive of the National Gallery of Athens¹. The drawings include:

- Main Façade and Section, Athens 1885, Watercolor, Dimensions 56x88 cm, Catalogue Number: 429
- * Ground Floor Plan, Ink, dimensions 46x64 cm, Catalogue Number: 35
- * Upper Floor Plan, May 1885, Ink, Dimensions 46x64 cm, Catalogue Number: 36
- * Section, Ink, dimensions 46x64 cm, Catalogue Number: 37

In addition to the drawings, another iconographical source have been the photos of the laboratories as set in the 1920s that are included in the book "Athinisi Panepistimio".

The investigation of the above sources has not been exhaustive. On one hand the studied material has been significantly helpful for the documentation of the three distinct phases of the building. Yet "gaps" still remain as far as the dating of the unmovable furniture and other equipment or the names of the architects that are associated with

¹ Collection of drawings made by Ernest Ziller, kept at the National Gallery of Athens.

the different transformations of the building are concerned. It is believed² that such data as drawings of the later additions or ordering lists and expenses, most probably exist in some "forgotten" corner of some Service of the University of Athens or any other Institution. Yet they were not traced during the research carried out for the purposes of this thesis.

1.1.3 Bibliography

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Bibliography specifically referring to the Old Chimio:

- * «Aθήνησι Πανεπιστήμιο» (Athinisi Panepistimio) published by the University of Athens in 1923–1924. A brief historical overview of the Chimio is included and mention is made for the 4 different laboratories that were housed there. –Laboratories of Inorganic Chemistry, Organic Chemistry, Physics y, Laboratory and Museum of Botanic.
- To Φαρμακευτικόν Χημείο 1904-1929 (Pharmaceutical Chimio) a publication in the occasion of the transfer of the Pharmaceutical Chimio in the Old Chimio.

General Bibliography referring to Neoclassical Architecture in Greece

- Neo-Classical Architecture in Greece, J. Travlos, published by the Commercial Bank of Greece, 1967
- AI AΘΗΝΑΙ απο του 19^{ου} εις τον 20^{ον} αιώνα, Κώστα Η. Μπίρη, «Μέλισσα», 1999 (ATHENS from 19th to th3 20th century by Kostas H. Biris, Melissa, 1999)
- ΜΙΣΟΣ ΑΙΩΝΑΣ ΑΘΗΝΑΪΚΗΣ ΑΡΧΙΤΕΚΤΟΝΙΚΗΣ 1875–1925, Μάνος Γ. Μπίρης, Αθήνα 1987 (HALF A CENTURY OF ATHENIAN ARCHITECTURE 1875–1925, Manos G. Biris, Athens 1987)
- Η ΝΕΟΚΛΑΣΣΙΚΗ ΑΘΗΝΑ ΤΟΥ ΠΑΥΛΟΥ ΜΥΛΩΝΑ, ΣΧΕΔΙΑ ΑΠΟΤΥΠΩΣΕΩΝ 1941– 1955, Κέντρο τεκμηρίωσης Νεοελληνικής Αρχιτεκτονικής, 2000 (The Neoclassical Athens of Paul Mylonas, survey drawings 1941–1955, Center for the Documentation of Neohellenic Architecture, 2000)

Referring to the Architecture of Chemical Laboratories in Europe:

* "HANDBUCH DER ARCHITEKTUR", IV TEIL VI.2.a. HOCHSCHULEN NATURWISSENSCHINSTITUTE, by Dr Josef Durm, Herman Ende, duart Smitt, published by Alfred Kroner Verlag in Stuttgart, in 1905

² If such archives as the detailed ordering lists for the years 1860-1890 do exist, it is considered quite possible that similar archives must have been held for the following periods. As far as the drawings are concerned: it would make no sense that the extension of such a building would take place without any -previously approved by the University- drawings. In other words, unless destroyed, they must be somewhere. In fact such a drawing, presenting the concrete structure above the main amphitheatre was all by accident "discovered" in some of the storage rooms of the Old Chimio.



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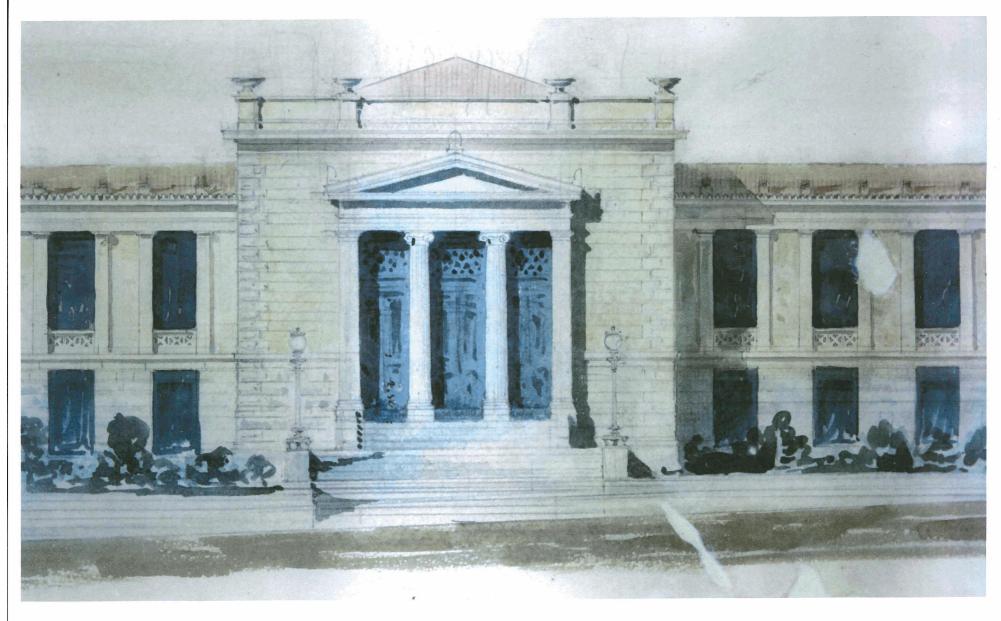
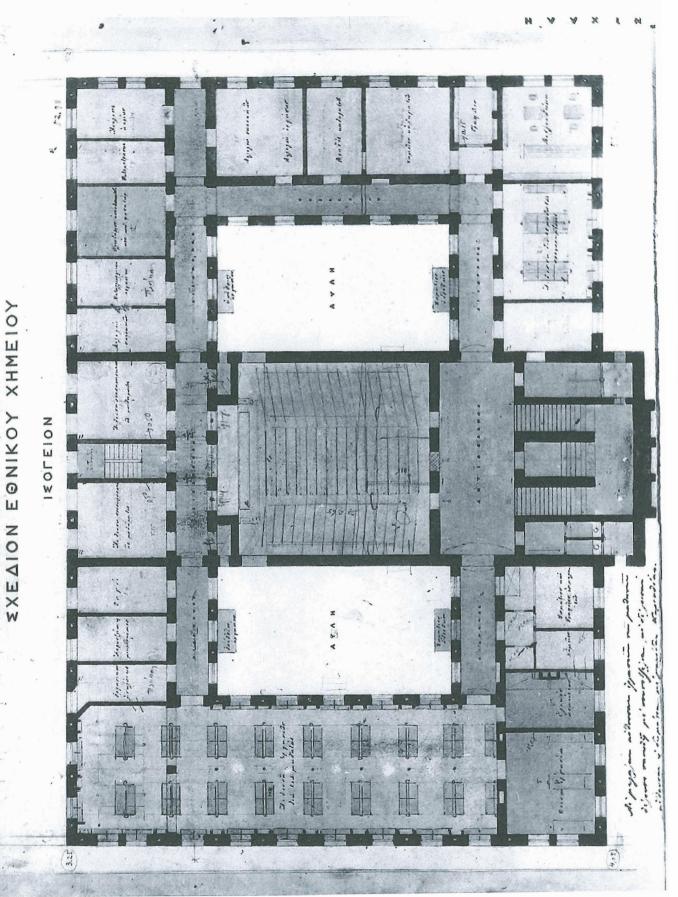


Fig. 02: Detail from Zillers drawing showing the proposed decorative elements of the façade: Doric Pilasters surround the windows; the indented walls below the sills have the "xxx" decoration; rustic coyn imitations -or embossed "corner stones"- can be seen on the Propylo and the base of the flanking wings.

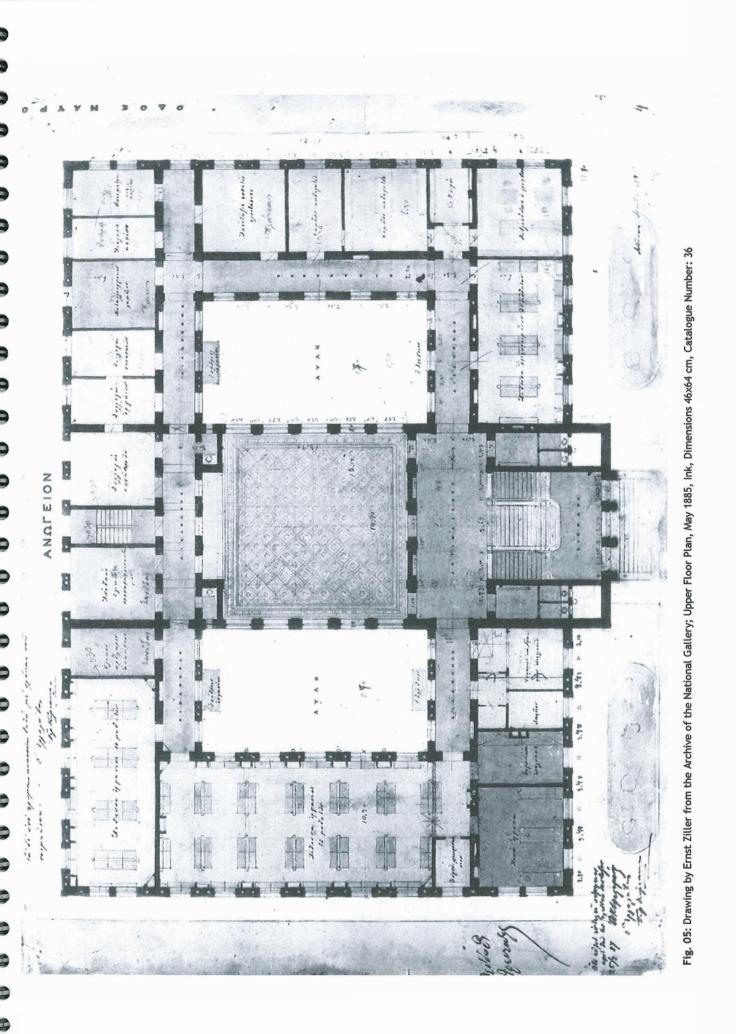




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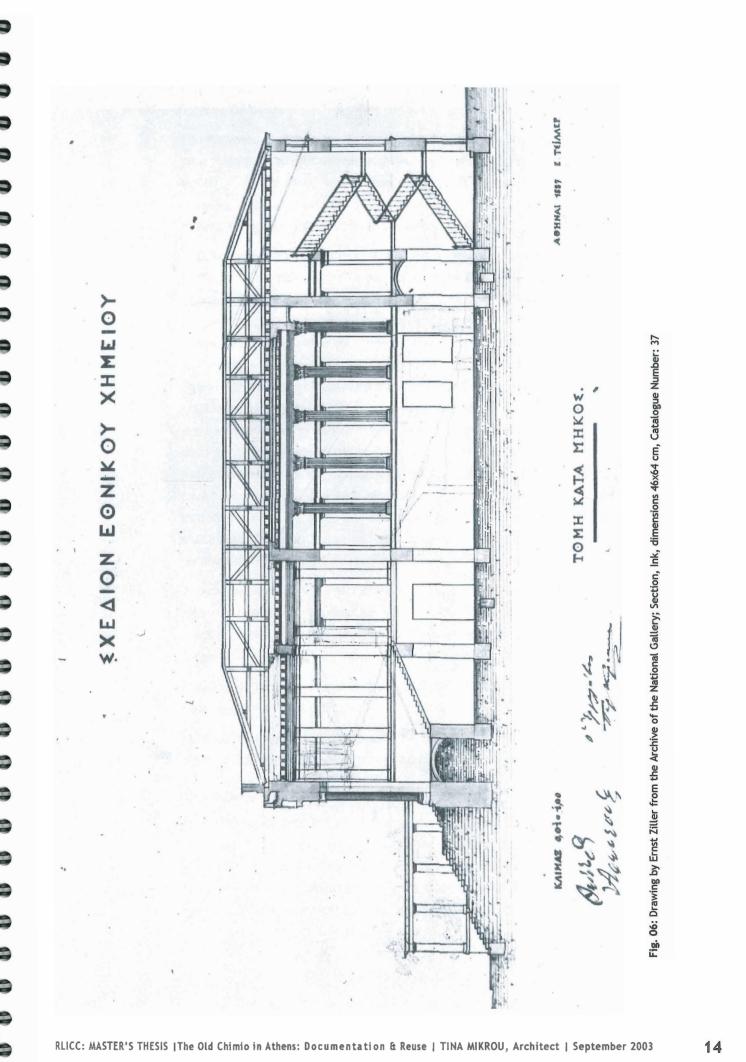
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Fig. 04: Drawing by Ernst Ziller from the Archive of the National Gallery; Ground Floor Plan, Ink, dimensions 46x64 cm, Catalogue Number: 35



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1.2 IN SITU RECORDING

The Architects D. Pandazis – N. Raptis who surveyed the building in 1994 and worked on a restoration project thereafter, have very kindly provided a set of drawings of the building including plans, sections and elevations. These drawings have constituted an extremely useful basis to work on and have been further enriched with more data accumulated during the in situ recording that took place for the purposes of this thesis.

The survey focused on the recording of the unmovable equipment still to be found in the building, actually under threat to be removed to other premises before being first inventoried. This equipment included workbenches, display cases, bookcases, bookstands and elaborate cast iron seats inside three lecture rooms. In the course of this survey certain rooms were also surveyed in order for the separate recorded objects to be set within their context. Therefore the interior dimensions and the position of the openings in the lecture rooms and the laboratories –where the workbenches are foundwere measured. In this occasion it was also possible to crosscheck the accuracy of the abovementioned set of survey drawings –which was considered satisfactory–maximum deviation observed was of about 7cm. Since these drawings did not present enough information as far as the arrangement and the size of the beams is concerned, they have been completed with such information. The beams have been measured in some indicative –and at the same time accessible– positions in every floor. Then the number of the beams and their layout was checked in every single room. It was thus possible to confirm the existence of every room as appearing in the drawings.

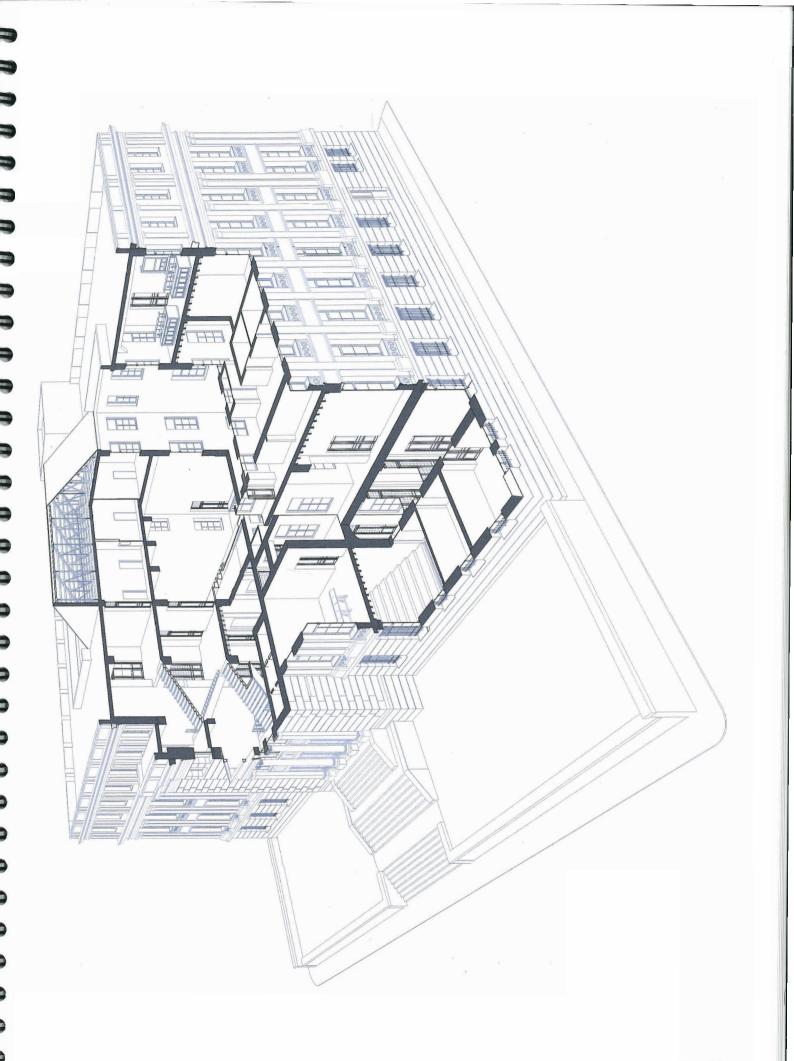
In order to create an inventory of the different door types, all 17 different doors were measured. Details of the staircase –cast iron railings, balustrades, and posts, marble molding profiles were also surveyed. All these measurements have been made through simple survey methods, with tape, level, and thickness gauge.

A series of photographs taken from most of the rooms attempted to ensure the documentation of the building as in its actual state.

Rectified photographs were also used to facilitate the "survey" of morphological elements of the façades that could only be accessible through scaffolding.

Management of the Data

The accumulated data of the survey were then processed and a computer 3dimensional model was formed. The model very much facilitated the graphical representation of the different building phases allowed for various perspective views of the several rooms together with their equipment to be generated and made possible and relatively easy the representation of structural details or elaborate elements.



2. HISTORICAL OVERVIEW

Chemistry has been taught in Greece since the establishment of the University of Athens in 1837. The courses originally took place at the Royal Pharmacy; then, after the official Pharmaceutical Chimio was established, under the direction of Xaverios Ladender, they were held at the basement of the southwestern wing of the main building of the University. In 1868 the laboratory was transferred from the basement to the upper floor of the same building. This official Pharmaceutical Chimio has been the first Chemical Laboratory established in Greece³; Chemistry was initially included in the educational program of the Department of Physics and Mathematics of the School of Philosophy;⁴

The erection of the Old Chimio is associated with two personalities, Anastasios Christomanos –Professor of Chemistry at the University between 1866 and 1906 and Ernst Ziller –Architect.

Anastasios Christomanos is considered the founder of the science of chemistry in Greece. He became Dean of the University in 1896 and he suggested the separation of the Department of Physics and Mathematics from the School of Philosophy –which indeed happened in 1903–1904. Then in 1919, the autonomous Department of Chemistry has been established.⁵

Christomanos is also referred as the person that has most persistently argued, since 1866, for the creation of an independent building, originally planned according to the norms and needs of a chemical laboratory, properly equipped, following the standards set by similar institutions that already existed in France, Germany, Italy and Austria. For this purpose, the University bought a plot in the neighborhood⁶ of the Main University, at the site where the Old Chimio stands today; The plot, limited by the streets Solonos, Pinakoton –today Charilaou Trikoupi–, Navarinou and Mavromihali was a rectangle covering a surface of approximately 4170m2 (52,90 m x78,80 m).

The Architect **Ernst Ziller** was appointed to compose the project. Ziller used to travel abroad anyway and he was aware of the evolutions in architecture in Germany, Austria

³ Фарµакситіко́ Хпµєю 1904-1924 (Pharmaceutical Chimio) p.5

⁴ The incorporation of the Department of Physics and Mathematics into the School of Philosophy was a result of the organization of the Greek University following the German prototype, according which, the newly established Natural Sciences ought to be part of the more general philosophic studies. *Catalogue from the Exhibition "150 years* from the foundation of the National Kapodistrian University" p.145

⁵ Catalogue from the Exhibition "150 years since the foundation of the National Kapodistrian University" p.146

⁶The distance between this plot and the main University is not that big, -Christomanos claims it to be a distance of 333 paces between the Propylo of the Central Building of the University on Panepistimiou street and the one of the Chimio- yet it seems this was considered a disadvantage and a reason for delaying the erection of the building in the search of another plot closer to the Central Premises of the University.

and elsewhere. The project Ziller proposed, judged by the Council of the University was at that time considered extremely expensive, therefore the plan for the construction of a proper Chimio was postponed. In the meantime the University acquired another plot together with the existing buildings known as the school of Georgios Papadopoulos; the Laboratory of Chemistry would be temporarily housed in a new, small, single floor edifice, built inside this plot, that soon proved to be rather inadequate for, "it was very dark and humid".

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In 1884–1885 the erection of a real Chemical Laboratory was thought to be absolutely necessary and Ziller was asked to revise his initial project in collaboration with the professors of Chemistry. Anastasios Christomanos, having already visited several similar institutions in Germany and elsewhere in Europe, had already his own projects for the Chimio and it seems quite possible that he set the functional program and the general layout, which was then artistically enhanced by Ziller⁷. The Council of the University and the Ministry (of Education (?)) accepted the revised project and the total expense of the construction, so that "the foundation stone of the edifice was laid on the 6th of June of 1887 around 6 pm". A commemorative inscription "*Dedicated to the scientific work and the native country*" («Aquepourar $m \, \epsilon n \sigma m \mu \rho \sigma \sigma \sigma, \eta \, \delta \epsilon \, m \, n \sigma m \rho \delta \sigma)$ and a Golden Coin of the King George inside a glass cylinder, were placed inside the foundations.⁸

Special mention is made to the fact that the project was made in cooperation with Karl Zastrau, Architect of the Chemistry Laboratory in Berlin and was examined and approved by famous, internationally recognized, Chemists of the time⁹. That is, the Chimio was meant to fulfill the standards of the respective European Institutions.

⁷ Christomanos describes the several projects composed by him, which all had in common the two courtyards, flanking a central lecture room and flanked by two laboratories. AOFOI FEQPFIOY KAPAMHTZA, ΠΡΥΤΑΝΕΩΣ ΤΟΥ ΕΘΝΙΚΟΥ ΠΑΝΕΠΙΣΤΗΜΙΟΥ ΚΑΤΑ TO AKAΔHMAĨKON ETOΣ 1886–1887. (SPEECHES GEORGIOU KARAMITSA, DEAN OF THE NATIONAL UNIVERSITY DURING THE ACADEMIC YEAR 1886–1887). p.204

^B ΛΟΓΟΙ ΓΕΩΡΓΙΟΥ ΚΑΡΑΜΗΤΣΑ, ΠΡΥΤΑΝΕΩΣ ΤΟΥ ΕΘΝΙΚΟΥ ΠΑΝΕΠΙΣΤΗΜΙΟΥ ΚΑΤΑ ΤΟ ΑΚΑΔΗΜΑΪΚΟΝ ΕΤΟΣ 1886-1887.

Addressing himself to the Dean, Anastasios Christomanos talks about the modest ceremony of the placement of the foundation stone of the Chimio and claims to have been so happy to assist in it. (SPEECHES GEORGIOU KARAMITSA, DEAN OF THE NATIONAL UNIVERSITY DURING THE ACADEMIC YEAR 1886-1887). P.201

⁹ Georgios Karamitsas, Dean of the University in 1886–1887, says that he personally asked Mr. Fitting, a well-known Chemist at the University of Strasbourg, to examine the drawings and make any suggestions about them. Another Chemist, A.W. Hofmann, the founder of two of the most important Chemical Laboratories in Germany, the one in Bonn and the one in Berlin, had as well a word on the proposed drawings and made certain recommendations: 1. Integrate the residence of the Director of the Chimio inside the building, 2. Avoid the incorporation of the canalization inside the walls, 3. Avoid the creation of separate laboratories for the Assistants etc. SPEECHES

The edifice was completed by 1890 and from that time onwards it housed the Laboratories of Chemistry, Physics and Botanics as well as the Botanical Museum.

The building itself, together with the garden in front of its main entrance on Solonos Street, covered a bit more than half the total surface of the plot. The other half remained free until the University Gymnasium occupied a part of it.¹⁰



On the 16th of August of 1911¹¹ –during summer holiday that is– a conflagration started from the upper floor and rapidly expanded to the whole building. It seriously damaged much of the structure and destroyed most of the equipment of the Chemical Laboratory.

GEORGIOU KARAMITSA, DEAN OF THE NATIONAL UNIVERSITY DURING THE ACADEMIC YEAR 1886-1887, p.59 and p.210

¹⁰ Georgios Afentoulis explains his efforts to persuade the ministry on the necessity of the erection of a proper gymnasium, argues on the importance of the exercise of the body together with the exercise of the mind and gives examples of other gymnasiums under the administration of the respective Universities in Austria and France. Economical restrictions made him choose the rest of the plot of the Chimio for this purpose instead of the much bigger and more suitable one -as he says- in the backyard of the National Printing House. $\Lambda OFOI$ $\Theta EO\Delta \Omega POY$ $A\Phi ENTOYAH$ $\Pi PYTANE\Omega\Sigma$ TOY $\Pi ANE\PiI\Sigma THMIOY$ KATA TO AKAAHMAÏKO ETOS 1887-1888. (SPEECHES THEODOROU AFENTOULI, DEAN OF THE NATIONAL UNIVERSITY DURING THE ACADEMIC YEAR 1887-1888). P. 78

¹¹ The author of "Athinisi Panepistimio" states that the building was destroyed by fire in August of 1910. (p21). In the the Speech of Spiridon Lambrou Dean of the University since February 1912 is mentioned that the accident happened in August 1911. The question -which of the two dates is the correct was given after research in the press of the time- came from the issue of Newspaper Acropolis dated 17 of August 1911 the day following the incident.

Fig. 07: The University Gymnasium in the back Court of the Old Chimio. It has been later on demolished to allow space for the New Chimio to be built. Source: "Athinisi Panepistimio"

1.1

TO EXEPTETIKON KAIMA

'I'nd firrow equavois adjuarodayeτους δρους ή Κων)πολις θα ήτο σήμε-ρου δν απέραντον νοσοχομείον χολερα-ηνεων. Αλλά, το ευερτεχικόν κλιμα πντων, Αλλα, το ευερτεχικον κλιμα της, αν δεν την σώξη όλογχαρώς, άνα-χαιτάζει όμως σημαντικώς την δραστη-ριότητα της νόσο. Είς 113 άνήλθου κατ' άνώτατον δ-

ρον έν διαστήματι 24 ώρων τά χρούσματα κατά την παρελθούσαν έδδομά-δα. Έριτρτε ό ήμερήσιος άριθμος δαίνει έλαττούμενος, παρά την μοφολα-τριπην άδράγειαν των άρχων, αίτινες יישלבא באבלסא הפמינושלא הפספטאמאדוκόν μέτρον έξιον λόγου, έκτος της άπο μένους άπηγορευμένοι καρποί.

דוֹם אסוישיותמה דמבור, אמדמטסטילוζιντα πεπόνια, παρπούζια, άστακούς, ζιντα πεπονια, παρπουςια, ψάρια, σαλάτες άθραστες, μίδια παραγεμιστά καὶ άλλα ἀπηγορισμένα ἀπὸ τοὺς ἰατροὺς, ὀρεπτικώτατα ὅμως, τους Ιατρους, ορακτικώτατα ομώς, πράγματα. Ζηλεύω τούς τρώτρυτας, άλλά δεν τούς μπροδικά. Φοδάβίμαι μι ή χολέρα νομέσει δτι την προπαλώ. Τά ωραία γνωστά πολίτικα ροδάκινα, οί γιριάδες, τὰ εὐώδη εὐχυμότατα ἀπί-δια καὶ τὰ μαῦρα κωνοειδῆ σχιστὰ σῦοια και τα μαυρα κωνσειοη σχιστα συ-κα, ίδίως αυτά τὰ σύκα, τὰ ἀποία ἀ-ραιά-ἀρειὰ ήρχισαν νὰ παρουσιάζωνται είς τά μανάδικα, κατήντησαν διά τους שיוווששק לותודשעוויסטק אתו דמטל שסלטש

ΗΚΑΤΑΣΤΡΩΦΙ **TO XHM** TPIA EKATOMMYPIA ZHMIAI OANATOI KAI TPAYMATIEMOI IIYPOEBEETON A BUT OMBPHE RIKON THE KATAETPOOHE

Περί την 1 1)2 μεταμασονύπτιον έπήδησαν έντος τοῦ δαματίου. Γύρω το ώραν τῆς χθές τοὺς πέριξ τοῦ Χημείου πῦρ ἀπὸ στιγμῆς εἰς στιγμην ἐλάμδα-τοῦ Πανοπατημίου οἰκοῦνταίς ἀστούς νε τραμακτικός διαστάσεις. ἐζύπνησαν μαγάλαι προυγχί ἀνθρώ- Μεγάλαι φλόγες είχον περικυκλώ-דסט: לקדנטידופ 60אטונמי.

Πυρκαϊάς πυρκαϊά, δοήθεια το

-Πυρικαϊάς πυρικαϊά, δοήθεια το Χημείου καίστατα. Συγχρόνας φιαδαθησως πυλλοί πυ-ροδολισμοί και καθανοτρουείαι άνοι ο όδουδος ημίθατα. -Το Χημαίου καίσται δυσίθαια. Πρώτος & συσίθα παρατικά της όδου Χαριδίου Τρομάδος δυσίθαια. διαδάτην δατις δαμορία να στα δυίδη ένα των όρεστο δρωτόζουν μο Χη-μείου το όρεστο δρωτόζουν μο Χη-μείου το όρεστο δρωτόζουν μο Καθά κόρε πινο χρώμα. --Πυρκαιά.

Τὰ τύρω καράθυρα άνειξαι, κατα-γωδώς και είς τῶν γεντόνων έσπευσε νὰ είδοποιήση εὸν πυροσδεστικάν λό-χοι ἐνῷ σί κώδανες τῆς ΖωσδόχουΠη איזה קבטווט אטסטקוראסו וטאחטשל zai TEPETPTQLEYNG.

-Tionaia.

Εἰς του πρότου των άλλεπαλλήλων ποροδολισών και των συνεχών πωδω-νοχρουσιών έτρεξαν δτρεξαν έκει πολλοί περίεργοι έπ των κάντρων, γείτα-νες έπ των πέριξ έδων και μετ' όλίγον ό άστυνόμος τοῦ 500 τμήματος κ. Κα-ραϊσκάτης μετά χωροφυλάκων.

ΠYΡ

. 200 ຊົນ ເຊັ່ງ 2043 ເຊັ່ງ 2043 ເຊັ່ງ 201 ເຊັ vency elge sportophere zåe.

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The manual of survivered at these and bolig Bonnig fin unfelben va

Μετάλαι φλότες είχαν περικυκλώ-σει το κτίριον. Αι ύελαι των καραθό-ρων ήρχισαν να θρηματέζονται προξεunai diapueis uporous.

. Πέριξ του πτιρίου είχε συναθροισθή πλήθος πόσμου τρέχου έπάνω-κάτω φω Vélav.

OI ITTPOEBEETAI

Μετ' δλίγον χανδοθασεν έχει ό π ροσθεσταιός λόχος θατις δάν ήδυνήδη ν' άρχίση άμδαως το ίργον του διεχα της άλλοίθωμς ίδατος καί χαλών (αμ λήνων διά γα μέταρερθή το είς μα χουνάς άποτότατες ύπάρχου ίδωρ. - Παρ' δλα ταῦτα οἱ Πυροσθότται

11αρ ολα ταυτά σι Ποροσυσται εἰργάσθησαν μὲ ἀληθη ἡρωῖσμὸν πρὸς Ἐντόπατοιν τοῦ πυρὸς και προςύλαξαν ἐξ αὐτοῦ τῶν γύρω οἰχιῶν τῶν ἀποίων τὰ πάράθυρα ἐκλείσθησαν ἐρμητικῶς,

OI ATIOMATIKOI

, Επτός των χωροφυλάκων και τών πυροσδοτών έπευσεν έχει πολλοί ά-ξιωματακί εινες ενώλον μαλλον το έργον των έργαζαμένων τρέχοντες έ-πάνώ-πάτω δίδοντες διατογιάς, ζαλίζοντες με τα διαρκή προστάγματά των Μεταξύ αυτών ήτο και δ Ίλαρχος THE INTENTING Dyolig & Termie rag he zerienda angarazian. 10 x Γενηματώς Βειξε μεγάλην δραστηριό τητα. Έπήδα από το δν. μέρος είς το

AI APXAI

Karber xartegearay int strou & diπατοκιν πατοφουσαν επι τοπου δ δι-ευθυντής επε πολλοί δετυσμοι των δια πάσκης πεί πολλοί δετυσμοι των δια άφων αυμμάτων με ίσχυράν στρατιω-ταφήν δύνομιν τητις παρεσάχθη πέριξ aun frie rapsedyon adolf

לבסדמויולפב בייקרמטירם בוב דבב אמאאו- יוי בשיטיים, אומטי אבדדם שמדוג אמו ב-לבסדמויולפב בייקרמטירם ביב דבב אמאאו- אמידעב אב בעירם לאסי דל באבו סטימלסמי σθέν πλήθος.

EIE THN AIIOOHKHN

Τὸ πῦρ τώρα είχε μεταδοθῆ εἰς τὴν ἀποθήμην ἔνθα ἐφυλάσσοντο χημικαὶ οὐσίαι καὶ ὅλαι. Μία δαρυτάτη καὶ ἀποπνικτική όσμή έναδόθη παντοῦ, ἐνῷ συγχρόνως έκαφανεικοί κρότοι και έκ-πυρσοκροτήσεις ήκούσντο. Ό κόσμος όπισθοχώρησε φρικιών. Εξαφνα το κατι όμενον κτίριον έφωτίσθη διά μισς άπο όμενον κτιριον εφωνισση στα μιση απο πολυχρώμους άναλαμπάς. Ητο μία α-γρία άνατριχιαστική τελετή, μία παταστροφή μεγαλοπρεπής έν τη φρίκη της. Τα παιόμενα φάρμακα, αί ύλαι, αί οδτα καιτιμενα φαρμοπα, αι υπαι, αι οπο σίαι έσχορποϊσταν δει το φασμαγορικόν, το ονειρωδες, το έκπλημιτον. Ούδέποτε οι 'Αθηναΐοι παρέστησαν πρό μέγαλοπροπεστέρου θεάματος, ένδς στοιχείου δργιάζοντος, λυσσώντος, μανιώδους χαί μίδε φασμαγορικής καταστρόφής. Η από της όδου Μαυρομιχάλη Ιαρός τὰ ἐπάνω άνοδος ήτο ἀδύνατος. Ό κατα επανώ ανοσος ητο ασυνατος. Ο κα-πνδε έπνητε, σι οπίθες έπσουρούφλιζαν η απόνη τύφλωνε και δ αρόμος είχε στρωθή με άναμένα πάρβουνα τά βποία δ. άνεμος παίζων περιέστρεφε είς πυρίνους δύνας. Και το αστείρευταν έναέρι-ον έχεινο ρέφια των σπιθών το διερχόμενόν άχράτητον πρός τα κάτω έρρεε πάντοτε, όρμητικόν, δτοιμον να άπην-Θρακώση και τάς έν τη δδω Σταδίου

οραπωση και τας εν τη οοφ Διτασιου οίκίας. "Η όδός Τάποκράτους γεμάτε κό-σμον ώς και όλα τα πέριξ. Το πάτομα δέν είχε καταρρεύσει είσετι. Τα έν τῷ είτηγείφ δωμάτια ἐσώζοντο. Μο μάείτηγεία σωματια εσωτοναι. Πης μα ζα πυροσδεστών ώρμησε με άξίνας κεί συνέτριτο ένα τών παραθύρων. Αὐτην άκριδώς την στιγμήν ένα μέρος τοῦ πατώματος είχεν ὑποχωρήσει κρί το άχριδώς την στιγμήν ενα μέρος του πατώματος είχει ύποχωρήσει κάι τό πρώτην είδγειου δωμάτιου έπαίετο. Άπό το συτριφθέν παράθυρου Επήδη-σαν άρπεται στρατιώται έντος του όπε-τεινού δωματίου και ήρχισαν να έξάγουν διάφορα πράγματα, μηχανήμοτα φαπούς κλη., άτινα μετέφερον die τός απόναντι οίκιας. Τό πῦρ ἐξηκφλοίθε άτράτητος το καταστρεπτικόν αύτοδ έργου. Μεγάλα χουδρά άπηνδραιωμένα Ευλά έπιπτον έκ των φατνωμάτων είς τό, πεζοδρόμιον άπειλούντα να συντρί ψουν τοὺς κάτωθεν τρέχοντας πυροσθέ στας ἐκ τῶν ἐποίων πολλοὶ ὑπέρτησαν άρχετούς μώλωπας και μερικοί έτραυ ματίσθησαι έπιπολαίως.

AI HEPIE OIKIAI

Τον μεγαλείτερον χίνδυνον διέτρε-χον αἰ πέριξ τοῦ φλεγομένου πτιρίου οί-κίσι. Οἱ ἐντός αὐτῶν διαμένοντες ἀςοῦ έφρόντισαν να παραλάδουν δτι πολύτιμον έπρόφθασαν έσπευσαν να φύγρυν τρ μαγμένου είς είχίας σύγγενωντων. Τη μαγμένου είς σίκας σύγγενώντων. Την ύπηρεσίαν της διασώσεως των όλκων διηθυνεν δ διοικητής τοῦ λόχου κ. Δη-μητρακόπουλος. Έξαφνα άμως άπό την δροχήν τῶν σπίθῶν ήτις κατέκλυζε τα κάντα μετεδόθη τὸ τῦρ εἰς την μοφίταν μιδς ἐπί τῆς δῶῦ Σόλωνος εἶκας. Τὸ μίας επι της στο Συκανάς στημες. το τι δγεινο είνε δπερίγραπτον. Θωνές, χαπό, φαταρία. Εύτυχδις προσβάσται άρχετά έγχαίρως μερικόι πυροσβάσται και χατώρθωσαν να σβόσωσι ένα χλινοοκεπασμα το όποίον έκαίετο άπειλών να άποτεφρώση έντος μιχροῦ χρονίχοῦ διαστήματος δλόπληρον τετράγώνον. 'Όπι τόπου δφοασε μετ' δλίγον και δ. χαθηγητής κ. 'Αποστολίδης.

EPEIIIIA

TON. -Bonderaaaaaa Along polepas motors Tà Quielia Eorla maav. To iδρογόνο θερμανθέν είξεν έχραγη.

O abouic Esperatare. Κάτι σαν παράπουρ ένος άνθρώ που που πονεί, σαν κλάμμα πρού-

on. Bo ... hora ana Μία άνατριχίλα είχε πιάσει τον ROOLAXNY.

ØPIKH

Μετ' δλίγον έσύρετο έπανω δ στρατιώτης Ζαίμης φέρων πραύis when a standar and sis rogadon and κατόπιν κοπιώδους εργασίας δ πυ ροσδέστης Σταυλής ήμιλιπόθυ-LOC

Κάτω άπο την άποθήμην ήχού σθη είς γογγυσμός. Ένεος όλίγου έσύρετο έπάνω δ άτυχής πυροσδέorne Kapayiavione. "Anavres ούτοι μεταφέρθησαν ύπο των - συναδέλφων των είς το Πολιτιχού Νοσοχομείον πρός νοσηλείαν.

Έκ τούτων δ Σταυλής και δ Καραγιαννίδης εξέπνευσαν περί την 2αν μεσημβρενήν ώραν in μέσω φρικωδών άλγηδόνων.

Έπίσης ετραυματίσθησαν έλαφρώς δ λοχίας Σουρής και αί πυροσδέσται Χρυσομήδης και Έμμα νουέλ. Είς δε στρατιώτης, του έποίου δέν έγνωσθη το δνομα, έπλη γώθη σοδαρώς είς τον πόδα ?. σθείς ύπο του ίππου του.

AI ZHMIAI-AI AEQAAEIAI Αι ζημίαι ανέρχονται είς τρία έκατομμύρια.

ΑΙ έπι του κτιρίου και των έν αὐτῷ συλλογῶν καὶ ἐργαττηρίων άσφάλειαι, κατά τὰς άνακοινώσεις του Πανεπιστημίου, έχουν ώς έξης :

Το κτίριον ητο ήφαλισμένον αν τι 150 χιλιάδων δραπιών είς την Εθνιαήν Ασφάλειαν και Ετέρουν 150,000 εἰς τὴν Ἀδριατικήν. Αἰ ἐν αὐτῷ δὲ συλλογαὶ καὶ τὰ

όργανα άντι 373,500 είς την 'Eθνικήν και 373,500 είς τάς Γενικάς Άσφαλείας Τεργέστης.

Υπήρχου δέν έν το κτιρίου τα έ ξής έργαστήρια Φυσικής Πειρα: ματικής, Ίατροδικαστικής nal Τοξικολογίας Υγιεινής, nai Μιο προδιολογίας, Φαρμαπολογίας παί Tev. Xrusias.

Το κτίριον του Χημίου Ιστίσθη To 1885-1886 xai zarezei olκόπεδον 4,536 πήχεων.

AI ANAKPIZEIZ. --- IIOOEN **IIPOHAGEN TO IITP** דטלט בידמדאי לאסיקביו אוב שום

Fig. 08: Newspaper Acropolis 17 of August 1911: "THE DISASTER IN THE CHIMIO. THREE MILLION DAMAGES, DEATHS AND INJURIES OF FIREMEN. DETAILED PICTURE OF THE CATASTROPHE"

Luckily enough the equipment of the Department of Physics was for the most part saved almost intact. Newspaper Acropolis gives a detailed and colorful description and lets us know that there have even been three victims.

3

The "General Insurance of Trieste" and the "Adriatic Insurance Company" where the building and its equipment had been insured, accepted to pay the amount of 247.235 Drachmas for the building and 238.281 drachmas for the equipment. By February of 1912 part of the destroyed equipment had already been replaced. As for the building there had been several thoughts but no action regarding the erection of a new edifice, so in the mean time, the Laboratories of Chemistry and Physics were temporarily housed at the premises of the "Maraslios Commercial School". ¹²

The Chimio underwent an extended refurbishment for several years. Ioanis Mesoloras, Dean of the University during the Academic Years 1914–1915 and 1915–1916 mentions that during the general assembly of the council of the University in 13 September 1914 he proposed that a Second Storey be added on the top of the building. From his saying we assume that part of the building had been reconstructed--repaired by that time –the name of the contractor-engineer involved in the "(re)construction" of the first storey is mentioned- but we cannot be sure whether it was already actually in use. A special committee by the engineer Ar. Kousidi and the architect Vassili Tsagkri and the architect from the technical service of University Sp. Zervos was set up to ensure the aesthetic and stability of the project.¹³ In fact the new storey was then added.

The New Amphitheatre now occupied the First and Second Levels and it is considered to have been the first one in Greece totally built in concrete. In 1917 the Laboratories of Chemistry and Physics gradually returned to the Old Chimio.¹⁴

A third storey was added on the building a few years later. This was meant to serve almost exclusively the Pharmaceutical Chimio and was inaugurated as such on the 7th of November of 1928¹⁵, approximately by the same time that the University Club by another well know architect, Alexandros Nikouloudis, was completed. The foundation of the University Club and the completion of the Chimio that "for years stood incomplete resembling a ruin" have been considered the projects of first priority for the University. The completion of the Chimio was supposed to be accomplished through the budget of years 1924–1925. According to Vasilios Alginitis, Dean during the Academic Year 1926–27 the completion happened during the Academic Year 1925–1926.¹⁶

¹² ΠΡΥΤΑΝΝΙΚΟΣ ΛΟΓΟΣ ΣΠΥΡΙΔΩΝΟΣ ΛΑΜΠΡΟΥ, 26 ΦΕΒΡΟΥΑΡΙΟΥ 1912, SPEECH OF SPIRIDON LAMBROU, DEAN OF THE UNIVERSITY SINCE FEBRUARY 1912 p. 11

¹³ ΙΩΑΝΝΟΥ ΜΕΣΟΛΩΡΑ, ΛΟΓΟΣ ΠΕΡΙ ΠΑΝΕΠΙΣΤΗΜΙΟΥ ΚΑΙ ΕΚΘΕΣΙΣ ΠΕΠΡΑΓΜΕΝΩΝ 1914-1915 ΚΑΙ 1915-1916, ΕΝ ΑΘΗΝΑΙΣ 1936. SPEECH BY IOANIS MESOLORAS DEAN DURING 1914-1915 ΚΑΙ 1915-1916. ATHENS 1936 p.31

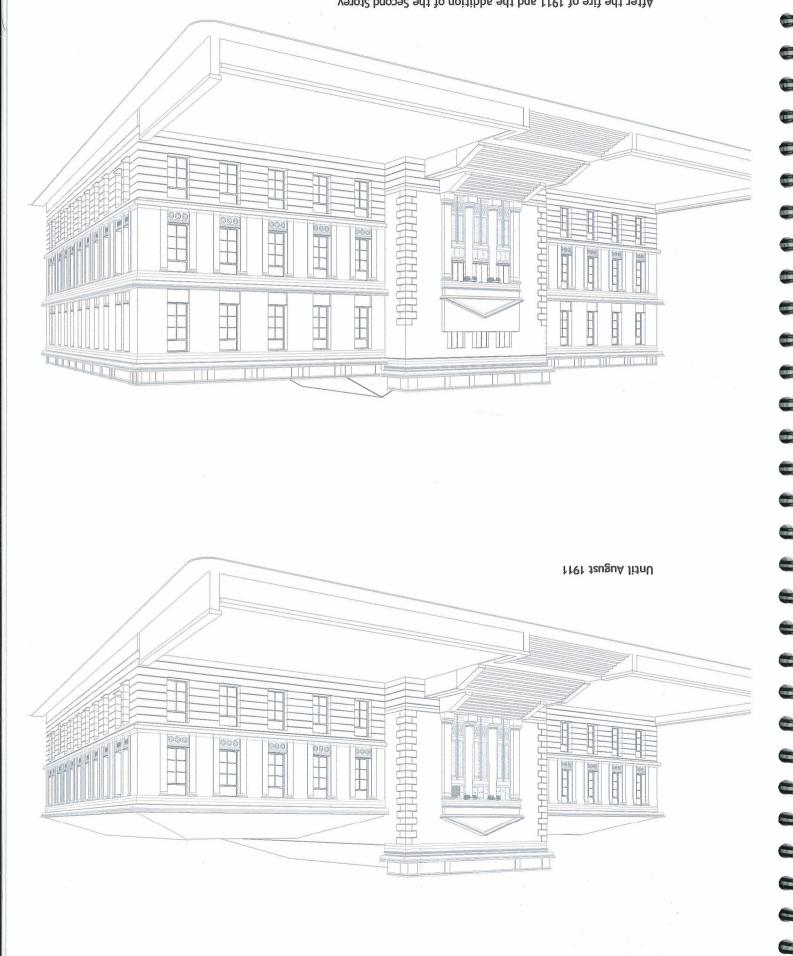
¹⁴ Αθήνησι Πανεπιστήμιο (Athinisi Panepistimio) p.21

¹⁵ Φαρμακευτικό Χημείο 1904-1924 (Pharmaceutical Chimio) p.7

¹⁶ ΒΑΣΙΛΕΙΟΥ ΑΙΓΙΝΗΤΟΥ, ΕΚΘΕΣΙΣ ΠΕΠΡΑΓΜΕΝΩΝ 1926-1927, ΕΝ ΑΘΗΝΑΙΣ 1931.



RLICC: MASTER'S THESIS [The Old Chimio in Athens: Documentation & Reuse | TINA MIKROU, Architect | September 2003



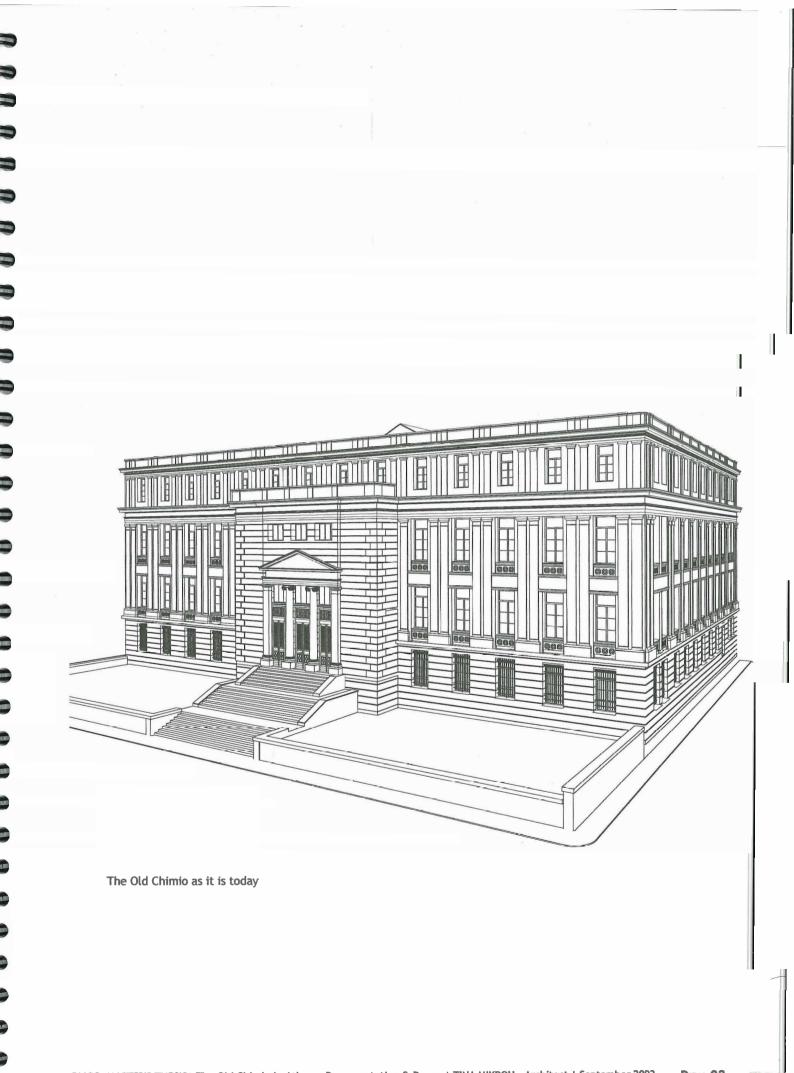
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After the fire of 1911 and the addition of the Second Storey

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C



3. THE CONTEXT

3.1 Urban Context

Situating the building into its urban context allows for a better understanding of its quite privileged setting.

3.1.1 Urban Layout of Athens

Athens became capital of the Modern Greek State in 1834 and two architects Stamatios Kleanthis and Eduard Shaubert prepared its first urban plan. The project proposed the development of city to the north of the Acropolis and suggested that the Palace be situated just opposite to it on an axis with direct view to the ancient rock, at the position where Omonia square is today. Two more symbolic axes were supposed to visually connect the Palace with the ancient stadium to the south east and to Pireus, the ancient port to the southwest. Leo Von Klenze revised the plan. The Palace was finally built in another position. Yet features of the first plan can be still visible in the actual urban tissue of Athens: the "symbolic" axes constitute major traffic arteries that define a triangle; Panepistimiou and Pireos Street represent the two sides of this triangle that are "united" by the third one, Ermou Street –which is in fact the main axis of Syntagma Square and the Palace –today Parliament –the first most important neoclassical building to be erected in Athens¹⁷.

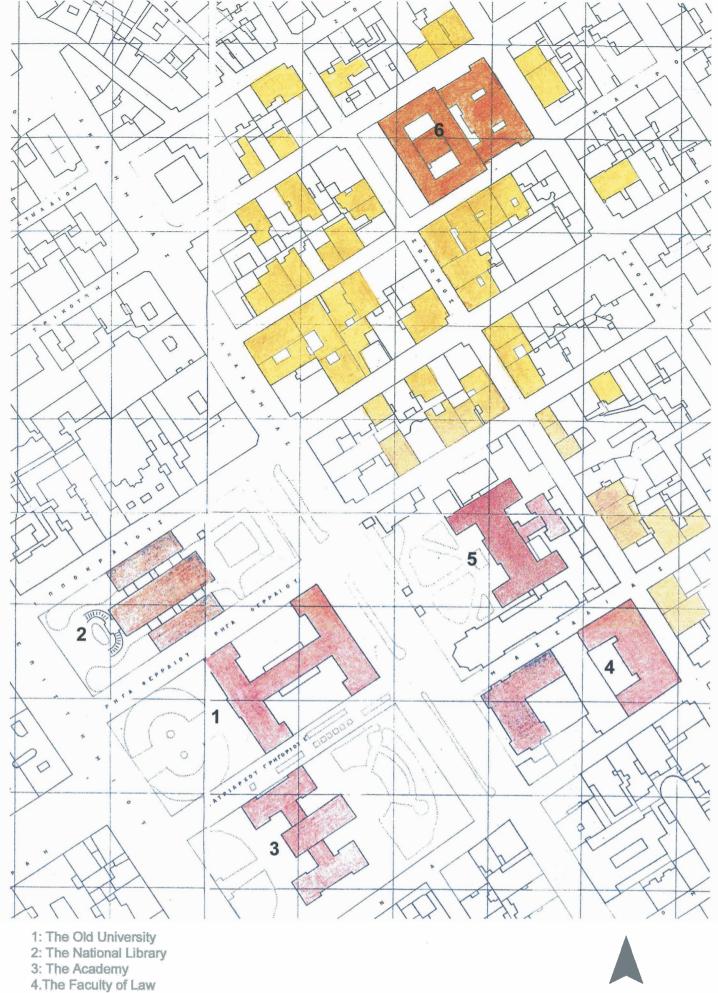
3.1.2 The Cultural Center

The eastern side of this triangle –Panepistimiou Street that stands for University Street– was meant to develop as a cultural center. In this part and the immediate surroundings –Academias and Stadiou Street– where dominated the University and where the Library and the Academy were later on erected, several intellectuals of the time chose to build their residencies –usually mansions on the prototype of the "Palais"¹⁸. Some of them still stand in place today, like the Slieman's mansions, an exceptional work by Ziller.

Additionally to the so-called Trilogy, the University (by Christian Hansen), Academy (by Theophil Hansen) and Library (by Theophil Hansen), the Civil Hospital (by Stauffer), the Eye Clinic (by Christian Hansen) -both university hospitals- the former school of Georgios Papadopoulos (by Stamatis Kleanthis), the School of Law and the University Club (by Alexandros Nikoloudis), were meant to form all together a University Center. An idea also suggested on the drawing by professor Athanasiadis that was nevertheless never

¹⁷ The Palace, where the Greek Parliament is housed today, built in 1837, deigned by Gartner and the Old University, designed by Theophil Hansen, built in 1843, have been the first public buildings to be erected in Athens and are considered to have set the prototypes for the evolution of Neoclassical Architecture in Greece.

¹⁸ Μάνος Μπίρης, Μισός Αιώνας Αθηναϊκής Αρχιτεκτονικής 1875–1925, (Manos Biris, Half a Century of Athenian Architecture, 1875–1925) p. 14



- 5: The Cultural Center of the Municipality of Athens
- 6: The Old Chimio
- In yellow: Publishing Houses or Bookshops

Scale: 1/2000

implemented. The University Campus, a few kilometers away from the city center has been chosen as a more feasible option instead.

More particularly the Old Chimio lies in an area called Neapoli –Newtown- that has been initially inhabited by craftsmen and artists –among which the painter Nikolaos Gyzisand that in the years 1880s evolved as a relatively cheap housing district with low cost but beautiful two or three-storey houses. These were mainly constructed for the lower classes and at that time were also bought or hired by expatriates returning from Egypt¹⁹ – or students because of the adjacency of the area with both the headquarters of the university and the Polytechnic School. Ziller and X. Ladender also had their residencies there.

3.1.2 Actual setting

Despite the fact that the idea of the University Center in the downtown did not work out in the end, remnants of it, assigned an interesting character to the area.

The Old Chimio, situated on Solonos Street is only a few blocks away from the Cultural Center of the municipality of Athens and the school of Law. In a short distance lie the historic buildings of the University and the University Club. On its backside, entering from Navarinou Street, the New Chimio occupies the rest of the plot currently used by the Department of Pedagogy of the University. All these buildings, referring to activities with intense educative character, mainly addressed to and involving young population have created the right conditions for a cultural environment to be created all around.

The primary uses on Solonos and the surrounding streets have always been meant to support these activities and serve the young population. Shops, mostly bookshops and quite a few cafes occupy the ground floors of most of the surrounding buildings while numerous smaller o bigger publishing houses referring to all different fields of scientific editions are represented on Solonos Street or around it. All this, has contributed to an "intellectual" atmosphere, still evident although rather in decline today.

Yet on the other hand, Solonos is a rather unattractive street, narrow and "dark" because of the high buildings all along its length, the heavy traffic and the absence of wide enough pedestrian sidewalks. Fig. 09 shows the Old Chimio in the 1920s, when it stood out of the adjacent constructions –usually of one or two stories. Today with one more storey on the top, the Chimio is hardly at the same level with the surrounding 5–6 storey buildings.

3.2 Architectural Background

The Old Chimio was erected in plain dominance of Neoclassicm. Most public buildings of the time, intended to reflect the dominant ideology of the state, were build on the principals of Neoclassical architecture. The same applied for the school buildings in particu-

¹⁹ Κώστα Μπίρη. Αι Αθήναι από του 19^{ου} εις τον 20^ο αιώνα. Athens from 19th to the 20th century p80, 198

lar. It has been argued that although these buildings present significant differences as far as the layout of the plan is concerned –which normally represents the personal ideas of the architect– they all have in common neoclassical morphological elements on the facades and similarities as far as the exterior appearance is concerned.²⁰ Among them the following are mentioned as the most representative examples of the architecture of educational institutions of the time:

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University	Christian Hansen	1839	Academias St.
Varvakio	Panagis Kalkos	1857–59	Athinas St.
Karamanou School	Stauffer	1840	Athinas St.
Arsakio	Lyssandros Kaftanjoglou	1846	Panepistimiou St.
Society of Education	Lyssandros Kaftanjoglou	1853	
Papadopoulou School	Stamatios Kleanthis	1856	Academias St.
Polytechnic School	Lyssandros Kaftanjoglou	1860	Patision St.
School on Adrianou Street	Panagis Kalkos	1870	Adrianou St
Academy	Theophil Hansen	1859	Academias St.
Library	Theophil Hansen	1884-1902	Academias St.
Old Chimio	Ernst Ziller	1887	Solonos St.

²⁰ Μ. Καρδαμίτση-Αδάμη, εφημερίδα Καθημερινή, 10 Νοεμβρίου 1996, τεύχος «ΕΠΤΑ ΗΜΕΡΕΣ»: Τα νεοκλασσικά σχολεία. (Μ. Kardamitsi-Adami, newspaper Kathimerini, 10 November 1996, "EPTA IMERES": Neoclassical Schools).

4. THE BUILDING

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4.1 Plans - Architectural Analysis

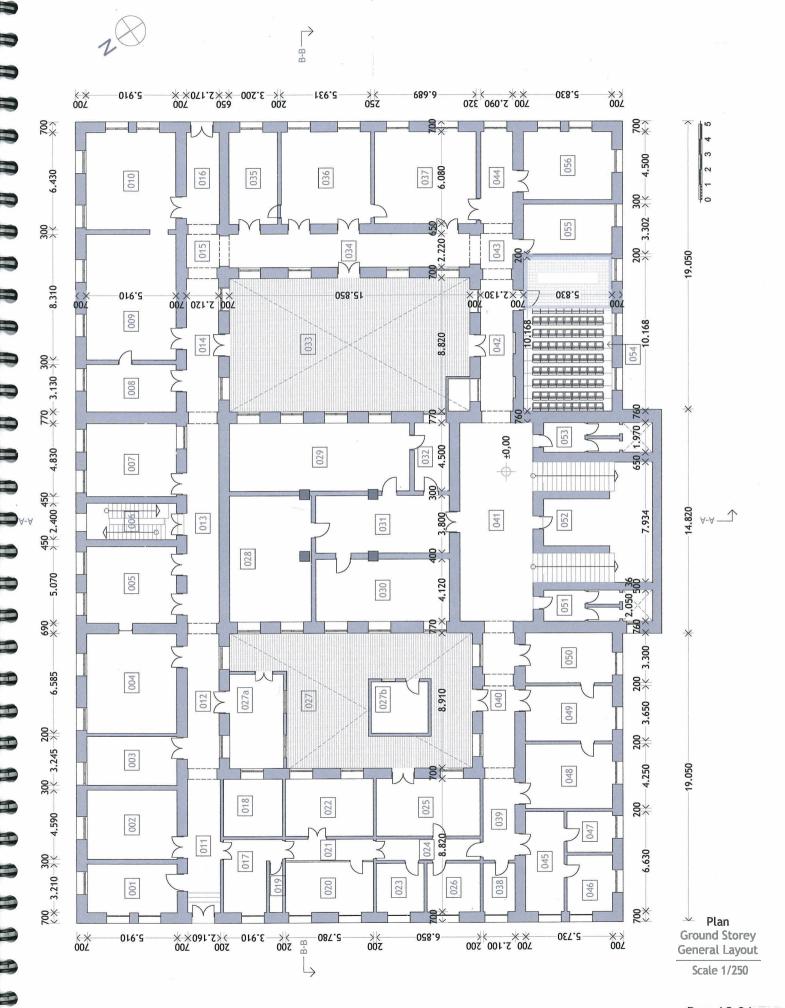
Following the plans of Ernst Ziller, the building was constructed rectangular 36 by 53 meters with a main and a secondary symmetry axis. The Main Symmetry axis, slightly deviating from the North–South Axis²¹, is perpendicular to the axis of Solonos Street and the secondary is perpendicular to the main one. The main entrance level is 3.50 meters higher than the street level. The building has four exterior wings, one interior central wing –which is parallel to the main symmetry axis– and two internal courtyards. The part of the main façade that corresponds to the central wing projects 2.50 meters from the rest of the surface. According to the first plan, all the exterior and interior wings were to be covered with inclined roofs. As for today, the exterior wings are covered with flat roofs and only the interior central wing is covered with a gabled roof.

The general layout of the plans is today almost identical with the one that Ziller designed: The entrance from the street level is through an external marble staircase. This leads to an internal mezzanine level from which three flights of a marble staircase depart: the central flight –3 meters wide– brings to the spacious landing of the First Floor –what was originally meant to be the most important floor of the building. The other two flights –1.8 meters wide each– flank the central part of the staircase and lead to the Ground Floor²². From the spacious landing of the First Floor, depart another two, 1.80 meter wide flights that lead to a mezzanine level between the First and Second Floor and from this mezzanine level departs a 3 meters wide staircase that leads to the Second Floor and so on until the Third Floor. Opposite to the Main Staircase –symmetrical as for the secondary symmetry axis– stands another ∏ shape staircase; that as well, vertically connects all the four stories and in addition exits to the flat roof of the building –whereas the main staircase does not.

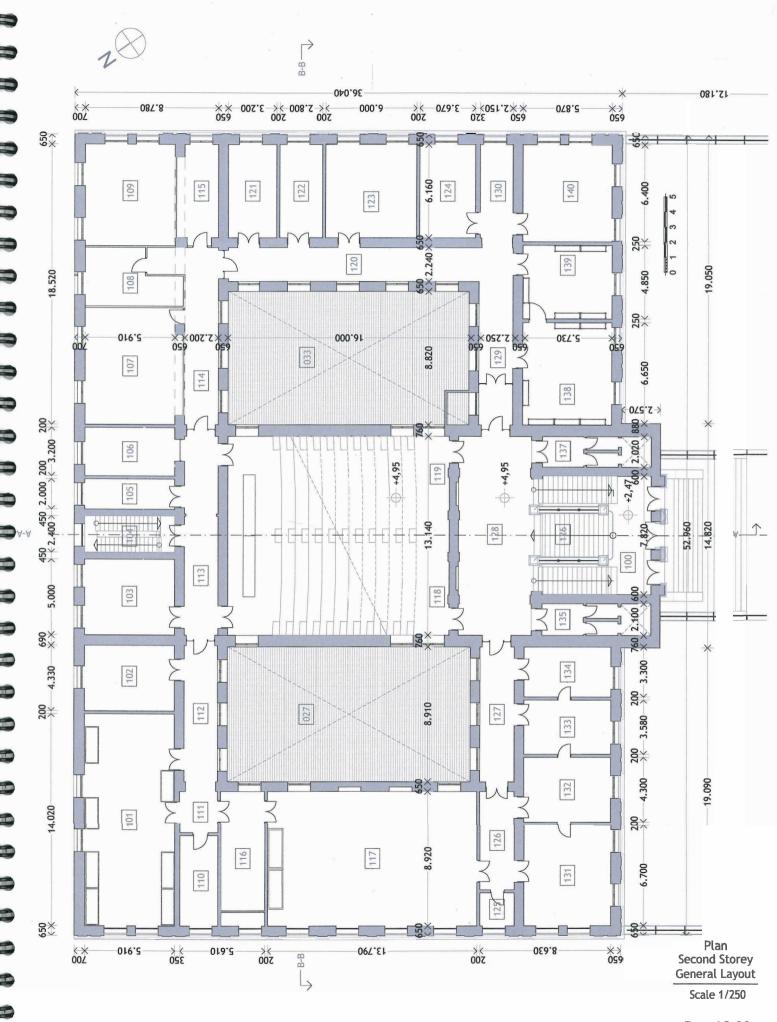
The main staircase divides in two parts the Southern –Main Entrance– Wing; these two parts are also subdivided into smaller rooms. In front of the rooms, a corridor connects the Eastern and Western Wing. Another symmetrical corridor is found in front of the rooms of the Northern Wing –which Wing is also divided in two parts by the Secondary Staircase. The Eastern Wing is subdivided into smaller rooms; In front of these rooms, another corridor connects the Southern and Northern Wings. The Western Wing was – according to Zillers' design– meant to be a single space. There is no corridor in the Western Wing and this absence of a corridor is in fact a slight deviation from the sym-

²¹ Nevertheless, for convenience, this deviation is not taken into account when it is about the description of the building. So the wing of the main entrance is called Southern Wing, the wing of Mavromihalli Street is called Eastern Wing and so on.

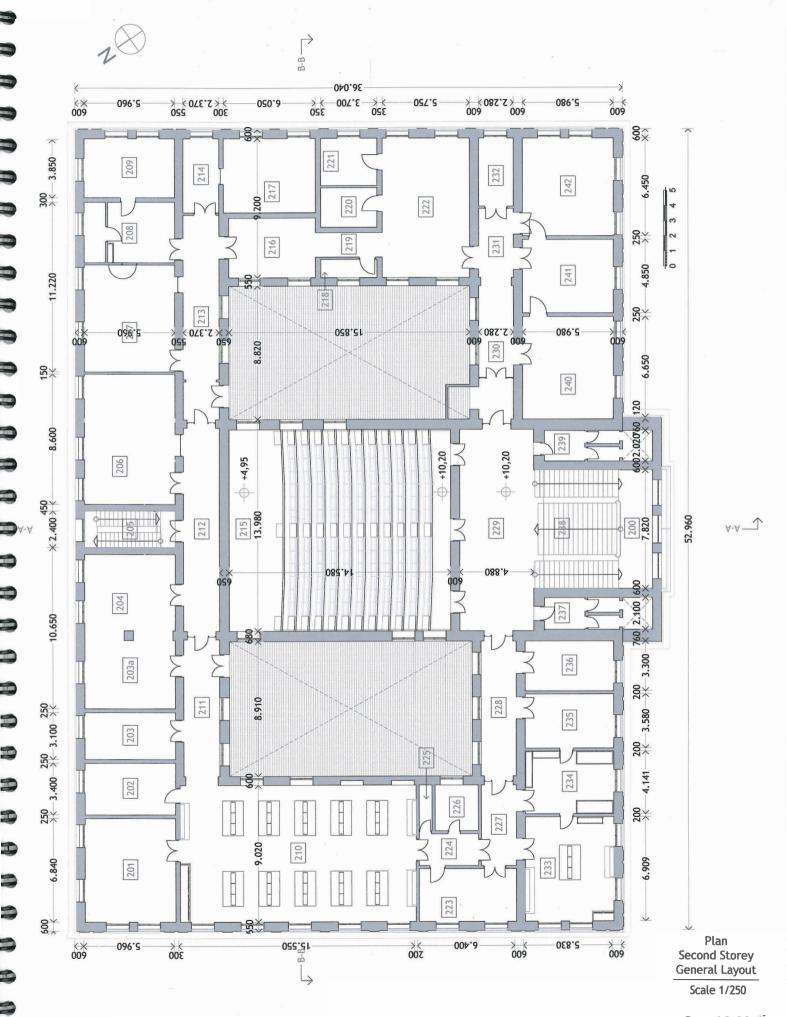
²² It has been chosen to use the term "Ground Floor" for this Storey for being almost at the same level with the street level. So the rest of the Stories follow as First, Second and Third.



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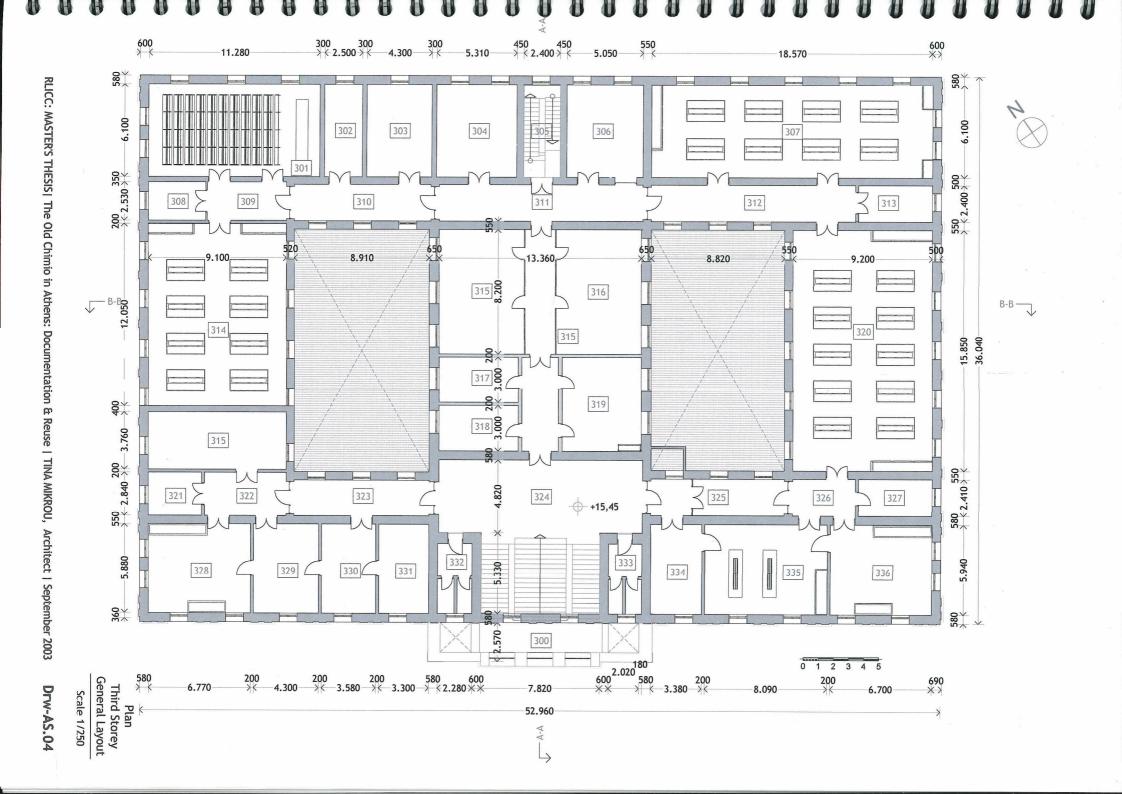


Drw-AS.03



RLICC: MASTER'S THESIS | The Old Chimio in Athens: Documentation & Reuse | TINA MIKROU, Architect | September 2003

Drw-AS.03



metry as to the North–South Main Symmetry Axis. Then two internal Courtyards to the East and the West of the Central Wing separate it from the Eastern and Western Wing; they also separate the Northern from the Southern Wing.

In the current state, and as far as the Ground Storey is concerned, the Western Wing is subdivided into several smaller rooms; but this is definitely a later modification (see Building Phases paragraph). The First and Second Stories follow the general layout as described above. The Third Storey also follows this general layout only that there, the Eastern Wing is one single space and has no corridor while the Western Wing is divided in two unequal parts and has no corridor either.

4.2 A building Type

The Old Chimio was originally built to house a Chemical Laboratory. That is, a particular building type. The general layout of the plans with some of the wings subdivided into smaller rooms and some others laid as single rooms, indicate that the design was meant to fulfill certain requirements.

The "Handbuch der Architektur", IV TEIL VI.2.a. Hochschulen Naturwissensch, Institute, published in 1905 is a manual on the architecture of this particular building type meant to help those that had to deal with the design of such edifices. The authors of the book analyze existing cases studies; they define the fundamental needs to be served, they put certain buildings in an order to show the evolution of the type, and suggest standards to be taken into account.

More particularly the chapter on the chemical laboratories explains that these can be organized in two categories on the basis of whether they are housed in a separate, autonomous, building or in a building that is also meant to serve more activities that are not necessarily related to chemistry. The first category is then subdivided into another two categories:

- 1. Chemical laboratories of Universities intended to house analytic chemistry
- Chemical laboratories of Technical schools intended to serve both analytic and technical chemistry

4.2.1 Chemical laboratories of Universities

For the first category of the first subdivision, that is the chemistry institutions of universities where different departments such as organic, inorganic, pharmaceutical chemistry are hosted, the main requirements are briefly summarized in the following three different kinds of activities that need to be served:

 Lectures: For this purpose, one big and preferably smaller Lecture Rooms are absolutely necessary. The main Lecture Room at least, should be equipped with all the necessary devices and installations for experiments. Other than these, rooms for the collection of instruments, rooms for the collection of substances

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-for the experiments and the lectures- and rooms for the preparation of the experiments are also required.

- Practical exercises: Laboratories for beginners, laboratories for advanced students, laboratories for organic chemistry, and laboratories for the analysis of the measurements are wanted.
- Other Activities related to professors and the assistants ask for offices and living rooms.

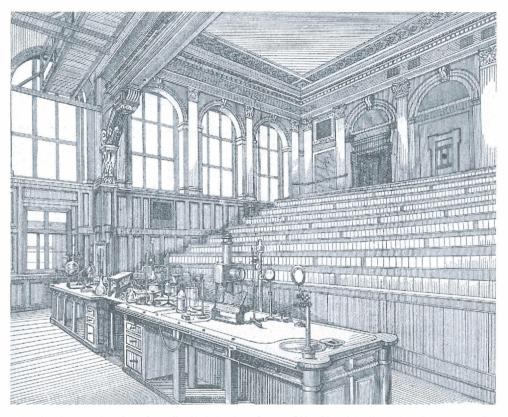


Fig 10: Perspective View from the Main Lecture Room of the Chemistry Institute of the University of Graz. Source: "Handbuch der Architektur", IV TEIL VI.2.a

The prerequisite that these different types of rooms but also the different departments are on one hand well separated and on the other hand easily connected and adequately lighted and ventilated leads to the solution of the internal central courtyard. The Chemistry Institute of the University of Freiburg constitutes such an example.

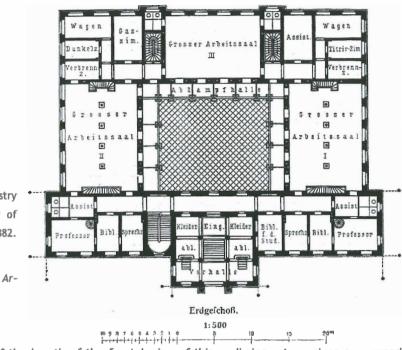


Figure 01: The Chemistry Institute of the University of Freiburg. Built in 1880-1882. Architect: Durm

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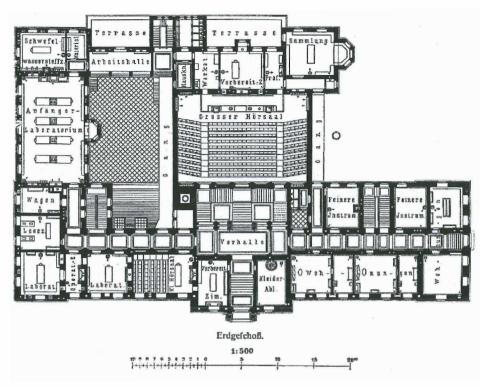
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Source: "Handbuch der Architektur", IV TEIL VI.2.a

The increase of the length of the frontal wing of this preliminary type gives a reversed σ shape plan. The chemistry institute of the University of Budapest represents such an example where the main activities are well separated and at the same time well connected. The laboratories meant to serve 70 students, occupy one wing, the offices and living rooms of professors and assistants another wing, while the main lecture room, big enough to accommodate 280–300 students, because of its importance for the whole building is placed on the central axis.

The following step as to the evolution of the type is made by the addition of one more wing symmetrical as to central axis so that three parallel wings and two courtyards are formed. Typical examples are the Chemistry Institutes of the Universities of Leipzig and Graz. In the case of the Chemistry Institute of Graz one of the three parallel wings is used for the purposes of the laboratories, the other for professors and assistants while in the central one is situated the main lecture room.



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Figure 12: The Chemistry Institute of the University of Budapest. Built in 1868-1871. Architects: Wagner, Zarstau. Source: "Handbuch der Architektur", IV TEIL VI.2.a

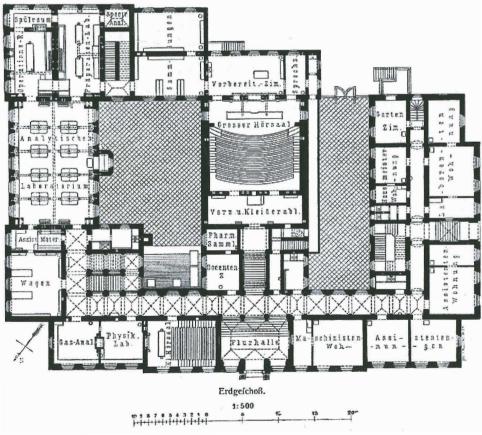


Figure 13: The Chemistry Institute of the University of Graz. Built in 1874-1879. Architect: Stattler. Source: "Handbuch der Architektur", IV TEIL VI.2.a

The Institute of the Technical School of Aachen, originally planned to serve both the analytic and technical chemistry and later on used only for the analytic chemistry, presents another type where a complete fourth wing is added on the plan so that two fully internal courtyards are shaped.

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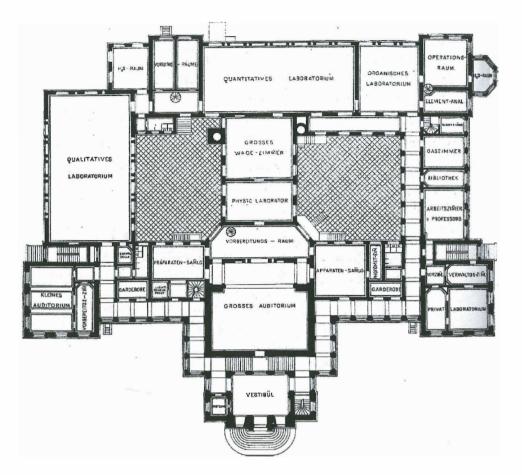


Figure 04: The Chemistry Institute of the University of Aachen. Built in 1875-1879. Architects:Ewerbeck and Intze. Source: "Handbuch der Architektur", IV TEIL VI.2.a

In the case of the Chemistry Institute of the University of Vienna there appears to be a third courtyard. Yet the tree of wings that form the additional court, are all housing the professors and the assistants. For the rest, the laboratories three wings in the ground floor and another two in the upper floor, there is a small lecture room in the ground floor and the main one always placed on the central symmetry axis.

One more central courtyard, that is four in total, has the chemistry institute of the University of Bonn.

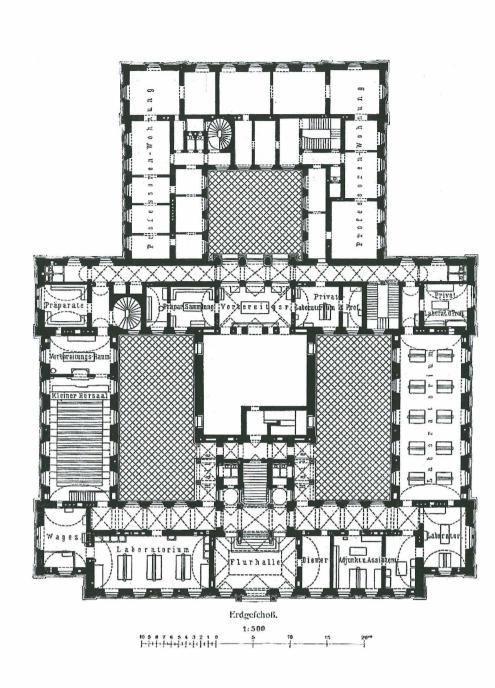


Figure 15: The Chemistry Institute of the University of Vienna. Built in 1869-1872. Architect: Ferstel. Source: "Handbuch der Architektur", IV TEIL VI.2.a

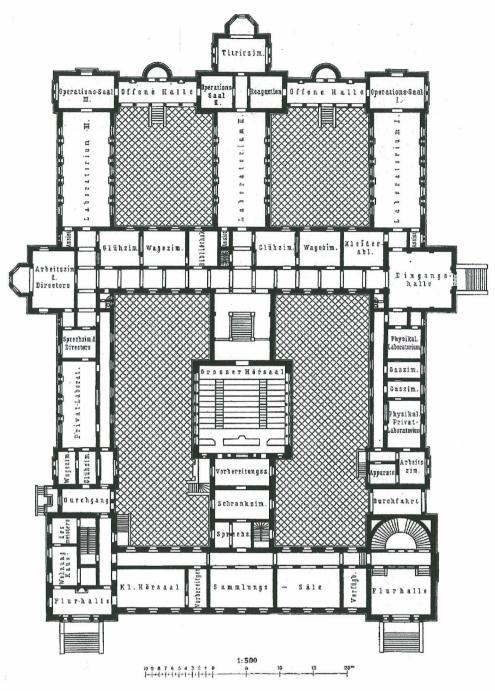


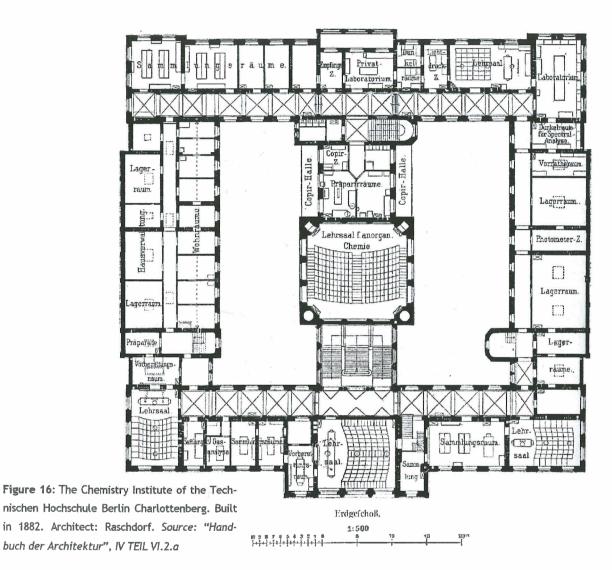
Figure 16: The Chemistry Institute of the University of Bonn. Built in 1865-1868. Architects: Dieckhoff and Neumann. Source: "Handbuch der Architektur", IV TEIL VI.2.a

4.2.2 Chemical Laboratories of Technical Schools

The main concern in this category is that the two different activities, the Analytic and the Technical chemistry, be well separated one from the other. This can happen either "casually" or clearly by division in either the horizontal or the vertical direction. In this category are included the Chemistry Institutes of the Technical Schools of Winterhur,

Switzerland (casual separation), of Dresden (with one central courtyard) of Lemberg (with two central courtyards) and of Berlin.

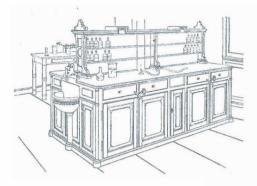
The Chemistry Institute of the Technical school in Berlin Charlottenburg occupying a surface of 66.20 by 60,42 m2 is the biggest of them all. This is probably the building that ... is talking about when he mentions that the Old Chimio in Athens was built in collaboration with Karl Zarstrauss, the architect of the chemistry Institute of Berlin²³.



²³ According to Dr Bernard Kohlenbach, Landesdenkmalamt Berlin, Paul Spieker and Karl Zastrau are known to be the Architects of the Institute of Natural Sciences of the University of Berlin built in 1873–1883. After our request, he kindly provided two pictures of the actual state of the building together with its reference number in the List of Landmarks in Berlin. Then it was clear that the Institute of Natural Sciences of the University of Berlin and the Chemistry Institute of the Technical School in Berlin are different buildings. Therefore either Karl Zarstrauss was also the architect of the

4.2.3 The Old Chimio of the University of Athens

The Old Chimio presents in fact quite a few similarities with the Chemistry Institute of the Technical School of Berlin as far as the general layout of the plan, with four exterior wings and one central interior one flanked by two courtyards, is concerned. Yet the Chimio of Berlin is much bigger and much more elaborate as far as both the interior and exterior decoration are concerned.



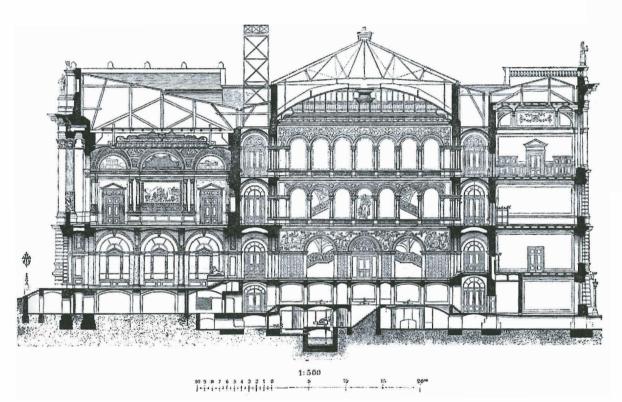
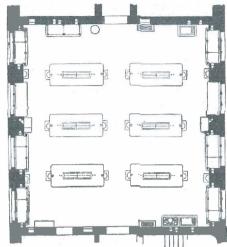


Figure 17: Section of the Chemistry Institute of the Technischen Hochschule Berlin Charlottenberg. Built in 1882. Source: "Handbuch der Architektur", IV TEIL VI.2.a

However there is one big Lecture Room, big rooms for the Chemical Laboratories, smaller rooms for the offices and personal laboratories of the professors and their assistants, rather small rooms also for the Laboratories of Physics and Botanics. It is known that –at least after the refurbishment of the 1917 took place– the Western Wing –single room and no corridor– of the First Storey housed the Laboratory of Inorganic Chemistry whereas the Western Wing of the Second Storey housed the Laboratory of Organic Chemistry. The Eastern Wing of the Ground, First and Second Storey housed, experiment rooms, libraries, display rooms and darkrooms of the Physics Laboratories. Both the big in the –Central Wing– and the small –in the Northern Wing– lecture rooms were used for the theoretical teaching of Chemistry, Physics and Botanics.²⁴

²⁴ "Αθήνησι Πανεπιστήμιο" (Athínisi Panepístimio) p.22

Resemblances with other chemistry institutes can also be observed as far as the interior decoration and the general layout of the plan of the rooms for practical exercises are concerned. For instance drawings of plans show the arrangement of the work-benches inside the rooms used as chemical laboratories: usually in two rows that leave an aisle in between with another two aisles that run parallel to the long walls; both these long walls appear with windows that let in plenty of natural light --and allow for



sufficient ventilation. Which seems to be possible through the internal courts. Further similitude regards the unmovable equipment in general: workbenches and the adjacent sinks, chimneys for the removal of produced gases, display cases and cast iron seats.

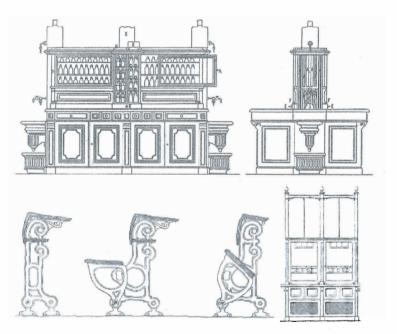


Figure 18: Plan Layout of Workbenches and other furnishing from Chemistry Institutes. Source: "Handbuch der Architektur", IV TEIL VI.2.a

4.2 Façades

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"The façade is very simple but also clearly Greek. As far as the law height of the building is concerned, which ought to be at least 2 meters higher, the Architect wanted it to be similar to the building of the University..."²⁵

²⁵ ΛΟΓΟΙ ΓΕΩΡΓΙΟΥ ΚΑΡΑΜΗΤΣΑ, ΠΡΥΤΑΝΕΩΣ ΤΟΥ ΕΘΝΙΚΟΥ ΠΑΝΕΠΙΣΤΗΜΙΟΥ ΚΑΤΑ ΤΟ ΑΚΑΔΗΜΑΪ́ΚΟΝ ΕΤΟΣ 1886-1887.

Ziller's watercolor drawing of the main Elevation of the Old Chimio represents a purely neoclassical arrangement of the surfaces with a few, yet distinct, decorative elements. The façade is divided into three parts in the vertical and the horizontal sense (Fig 02).

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A central projecting Propylo –in fact very similar to the one of the University– is dominating the whole composition. The projecting Propylo is composed of two Ionic Half Columns that stand in between two Pilasters. The corners of the Propylo are decorated with rustic coign imitations. There is a whole Entablature with Architrave, Frieze and Cornice. On the top of the Entablature stands a Pediment.

In the vertical sense the central Propylo and the two wings that flank the Propylo define the three parts mentioned above. The repetition of the windows creates the rhythm; the Doric Pilasters surrounding the windows together with the ornamentation of the indented parapets bellow the windowsills, represent the main decorative elements. In the horizontal sense the three parts are defined by the walls of the lower level (Base) that are bear engraves, the plain-face walls of the upper level (Main Body) and the entablature on the top (Ridge).



It was not possible to trace any photograph showing the Old Chimio as it was before the fire of 1911 that is before the addition of the Second Storey. In the actual state of the building many of the elements of the façade represented in Ziller's drawing (Fig 02) are not there any more. So an evident question would be: Was actually the Old Chimio built in the way originally conceived and proposed by Ziller? The answer to this question comes from a closer look to the photograph (Fig. 09) showing the building in the 1923–1927. In fact this is a valuable source of information: The First Storey appears with the decorative elements proposed by the façade drawing of 1887. The Doric Pilasters surround the windows; the indented walls below the sills of the windows do have the "xox" decoration; the entablature still stands on the top of the First Storey separating it from the "freshly" added Second Storey. The rustic coyn imitations –or embossed "corner

Statement by Anastasios Christomanos (SPEECHES GEORGIOU KARAMITSA, DEAN OF THE NATIONAL UNIVERSITY DURING THE ACADEMIC YEAR 1886–1887). P .203 stones"- of the Propylo are also there extending only to what would have been the original height of it. The rest of the surface of the Propylo, which now exceeded over the pediment, remained without any decoration. The same applied for the entire façade of the Second Storey that appears to have absolutely no decorative elements, except for the cornice and the parapet wall on the top.

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In 1923–1924 the author of the book "Athinisi Panepistimio"²⁶ says that in 1917 the laboratories of Organic and Inorganic Chemistry, Physics and Botanics were gradually moving back to the repaired edifice, yet he comments that further "completions" were still to be made especially as far as the exterior of the edifice is concerned. Therefore, for a certain period of time, the facades remained "incomplete", the Second Storey stood over the existing building as a very distinct addition, devoid even of any decoration that would give a unified aspect to the whole composition.

The façades were indeed arranged in a following stage so that the final result would hide and not reveal the different additions. It cannot be said for sure whether this happened before or after the Third Storey was added but according to the saying of Vasilios Aiginitis,²⁷ before the building was completed in 1925–1926 with the addition of the third storey, "it stood incomplete resembling a ruin".

In any case, the final result is considered rather successful since, other than unifying the different modifications into one single composition, it retains the pattern: Base, Main Body and Ridge: the surface of the of walls the Ground Storey is engraved and they constitutes the base. The cornice separating the First and Second Story –as appearing in Fig. 09– is removed so that the First and Second Story constitute a single zone –the Body. The impression of this dominating single zone is emphasized by the way the Double Height Pilasters are used. They do not surround the windows any more but they have been slightly moved towards the center of the parts of the wall that are left between the windows. They are placed in pairs and they extend all along the whole height of this zone –following the so–called "Tsagris" style.²⁸ The entablature on top of this zone surrounds the whole structure.

Because of the careful reinterpretation of the morphological elements of the neoclassical vocabulary into what was then the most prominent style, it is believed that some skilled architect designed this composition of the façades once the building was completed. In fact an architect named V. Tsagkris —and not Tsagris, which in Greek makes a difference— is referred as a member of the committee established in 1914 or 1915 to take

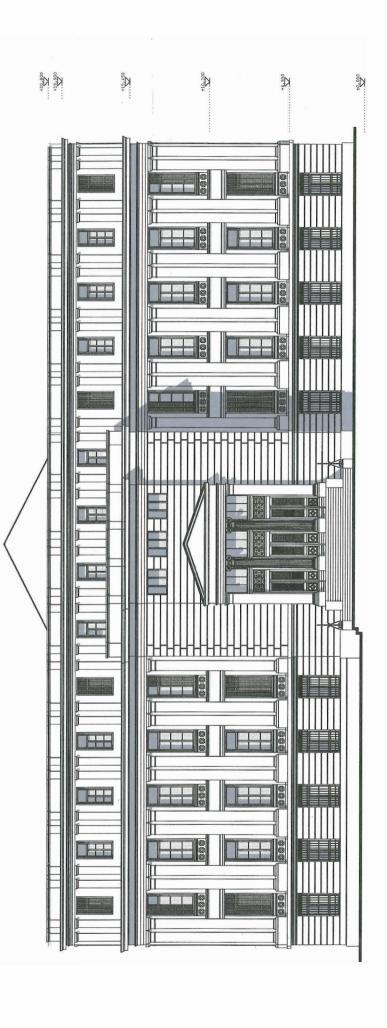
²⁶ Αθήνησι Πανεπιστήμιο (Athinisi Panepistimio) p.21

²⁷ ΒΑΣΙΛΕΙΟΥ ΑΙΓΙΝΗΤΟΥ, ΕΚΘΕΣΙΣ ΠΕΠΡΑΓΜΕΝΩΝ 1926-1927, ΕΝ ΑΘΗΝΑΙΣ 1931.

REPORT BY VASILIOS AIGINITIS, DEAN DURING THE ADACEMIC YEAR 1926–1927, ATHENS 1931. p.7-8 and 25-29

²⁸ The system of the double height pilasters, commonly referred as Tsagri's style by the name of the architect who widely used it in his works, was very widespread in the 1920s-1930s





South Elevation

Scale 1/250



South Elevation

Scale 1/100

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Northern end of Western Elevation

Scale 1/100

care of the renovation of the building after the fire of 1911 (as already mentioned in the Historical Overview). It <u>might</u> be –although there is no real evidence about it– that Vasilis Tsagris (1882–1941) was indeed involved in this project.

In the actual state of the Old Chimio, the façades are organized as described above with a Third Storey over the Entablature, which separates this upper part (now Ridge) of the edifice from the Main Body. In this final layout the Propylo is not dominating the composition as much as it was meant to in Ziller's design; integrated as it is in a massive wall, flanked by two massive wings, it seems "absorbed" by the rigid volume of the building, which apparently has lost the elegant proportions of the originally planned

edifice. The windows have all exterior shutters of the so-called "French" type. Except for those of the ground storey that because of the exterior iron railings have shutters that open inside the room and are placed behind the glass window. There are three different door types in the exterior

4.3 Building Phases

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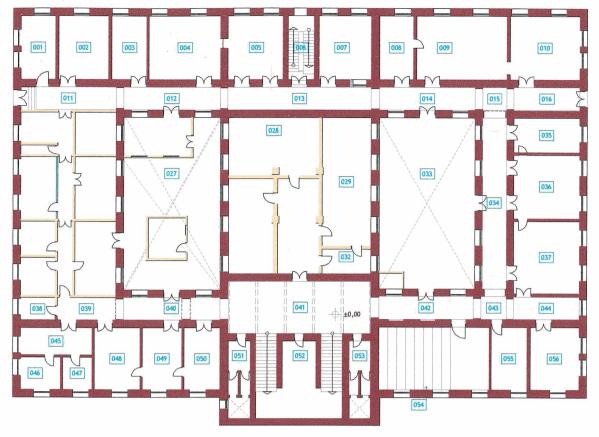
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Summarizing its History, the Chimio has three distinct Building Phases: 1.1887–1990, 2.1911–1917 and 3.1925–1927. In its actual state the building is composed of 4 stories and a basement all along below the Western Wing. The Ground Storey and the First Storey belong to the First Building Phase, the Second Storey to the Second, and the Third Storey to the Third. This is a rather straightforward interpretation, yet the thorough identification of the phases is at times a bit more complicated and not always possible to say with absolute certitude.

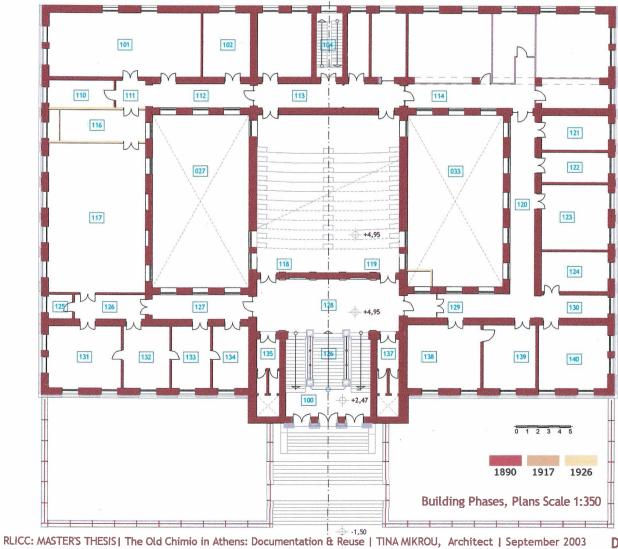
The following drawings propose a Dating Scheme as far as the **Plans** and **Sections** are concerned:

Ground and First Storey: All of the exterior and most of the interior walls belong to the First Building Phase BP1: 1887-1990. It is known that the building was seriously damaged by the fire of August 1911 but it is believed that the stonewalls were not destroyed at that time. The same applies for the floors of the Ground Storey and the floors along the corridors and the main entrance of the First Storey. These floors, constructed in stones or bricks survived the fire. On the contrary, the rest, wooden, floors of the First Storey collapsed during the fire. Therefore the ones visible today belong to the Second Building Phase (see following paragraph, explanation about Fig00). The division walls defining Rooms 017-026. These walls do not appear in the drawing by Ziller (Fig. 04). Moreover than that, when Christomanos describes the general layout of the Ground Storey refers to the room of the western wing as a single long room. It is claimed that these walls belong to the BP3 (or even some later minor transformations period following the BP3) for, all of the doors on them are of the same type as the ones of the division walls defining rooms 315-319 in the third storey. The concrete slab that divides into two parts Rooms 028-032 together with the columns and the beams that support it, are considered to belong to the BP2, for the resemblance of the dimensions of the

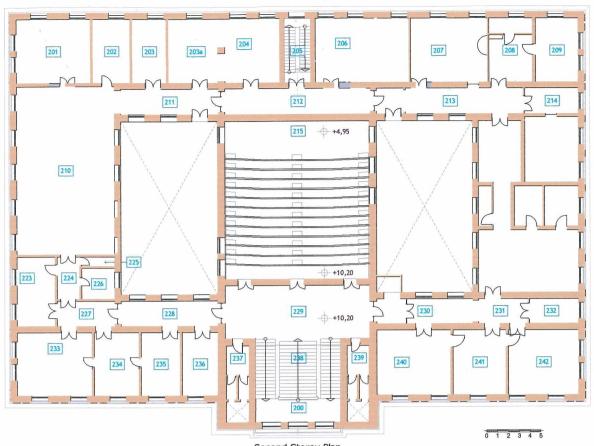




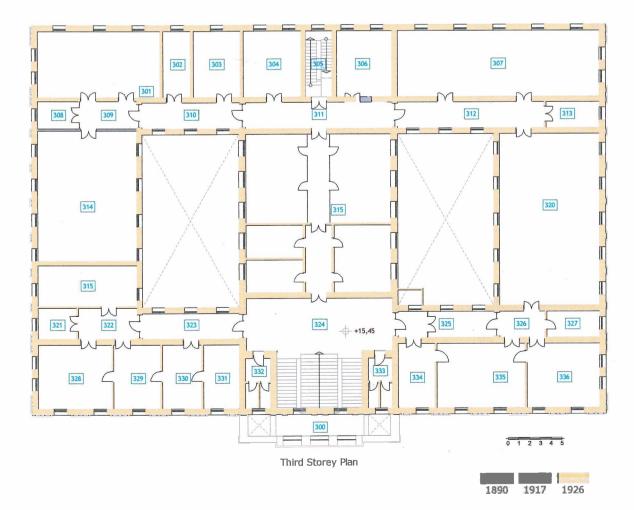
Ground Storey Plan



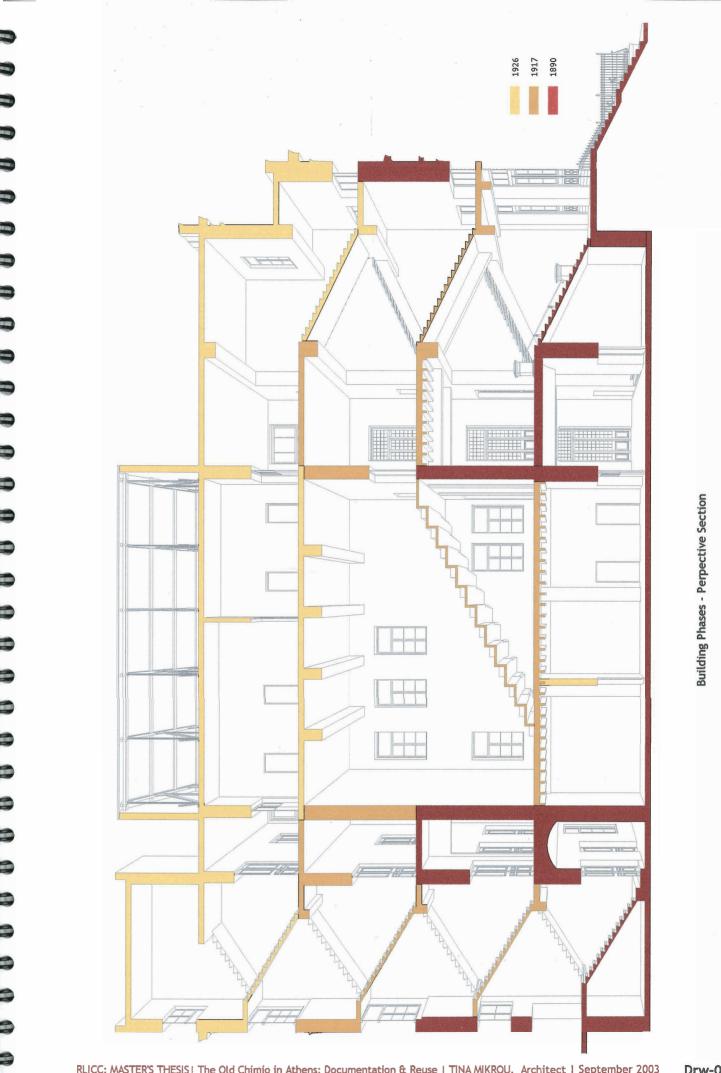
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Building Phases, Plans Scale 1:350



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Drw-04

beams with the ones of the second storey. During the First Building Phase, Room 118– 119 housed the main amphitheatre. During the Second Building Phase –and as it is now–, half of the room is occupied by the amphitheater and the other half by the storage space below the amphitheatre (since this extends in two stories in the vertical sense). The staircase leading from the mezzanine level to the Ground and the First Stories belongs to the BP1.

Second Storey: All the walls belong to the BP2 and so are the floors and ceilings – except for the ceiling of the main amphitheatre. Prominent elements of the Second Building Phase constitute the small concrete beams placed close one to the other supporting the slabs of the above storey. The only differentiation from this structural system can be seen in Room 210. Yet the a photograph from "*Athinisi Panepistimio"* (see in following page "Old Chimio Fig. 1") clearly shows the same arrangement of the beams in 1923–1924 –that is before the Third Building Phase; **therefore**, – strangely enough– the two systems must be from the same building phase. As for the ceiling of the Main Amphitheatre, in its actual state, this was constructed only when the Third Storey was added. A drawing found in some storage room shows the proposed new concrete structure above the Main Amphitheatre, has the date 1926. But also Fig. 09 clearly shows a gabled roof above this central wing of the Second –and at the time of the photograph last– Storey. The staircase leading from the First Storey to the Second Storey belongs to the BP2.

Third Storey: All the walls belong to the BP3 and so are the floors and ceilings. The Concrete Structure differs from the one of the Second Storey (see structural system). The central wing of the Third Storey, –that is the Rooms 315–319– is covered by a gabled roof. The resemblance of this roof in Fig 09 with the actual state leads to an "instinctive" interpretation: it might be that the whole metal structure of the gabled roof was transferred from the Second to the Third Storey when this was added. But apparently this is only an assumption. The staircase leading from the Second Storey to the Third Storey belong to the BP3.

As far as the main façade is concerned –but similarly also the rest of them–all the decorative elements that can be seen today were placed in 1923–1930. Except for the Propylo that belongs to the First Building Phase.

4.4 Structural System

Load bearing walls that support flat slabs through horizontal beams is the basic structural concept. **In the ground storey** only, the long corridors still retain the original vaulting system reinforced by arches. The arches subdivide the corridors in smaller parts. In the corners, where the vaults of two corridors are met perpendicularly, cross vaults are formed (015, 043). Vaults of the so-called "Knappen" system cover the hall in front of the main staircase (041) and the two bathrooms flanking the staircase (051, 053). In the rest of the rooms of the ground storey and in the first and second storeys, the beams are small (approximately 100mm width by 200mm height) and very densely placed one to the other (approximately every 350–450mm). Except for the western wing (rooms 017 to 025, 116–117 and 210) where the beams are bigger and placed in pairs. In the third storey the beams are big (350mm wide by 500mm high) and have triangular supporting ends. They are placed far from one another (approximately every 3 meters). The beams do not extend to the corridors; this applies for all corridors of all storeys except for the eastern part of the northern corridor in the first storey.

There are no columns in the building; except from the central wing of the ground storey, divided into two parts through a slab.

4.4.1 Building Materials

The main building materials are: stones for the exterior and interior bearing walls; bricks for the interior division walls; bricks also for the vaults; concrete for the slabs and beams of all than the ground floor ceilings; concrete also for the steps of the two lecture rooms; Marble for the two staircases and the Propylo; wood for all the exterior and interior doors and windows; cast iron for the balustrades of the staircases and the three different type seats of the lecture rooms. All the exterior and interior wall surfaces are plastered. Cornices and other decorative elements have been constructed with the method of the "traced" plaster. Only three rooms on the First Storey that used to be professors' offices –named in the plans as rooms 138, 139, 140 have decorative "passamentos", painted imitations of dark brown marble. These rooms and another Professor's room of the Second Storey –room 234– have stucco decorations on the ceilings or in zones below the ceiling with Greek Border or flower motifs. Most of the floors are of the "granito" type except for some of the floors of the Ground Storey that have cement tiles. Many of the floors are covered with linoleum tiles over the "granito" floor.

The absence of any marble parts in the façade –other than the Propylo that is– of any wooden flooring, of any wooden paneling or more stucco elements for the interior decoration, as it has been the case for the main building of the university is a clear indication of the prominent <u>utilitarian</u> character of the building. It is also another characteristic of Ziller's work who prefers economic than expensive solutions and uses on purpose plastered pilasters and often white painted ceramic elements such as balustrades, capitals, decorative edge-tiles–meant to imitate the respective marble parts.

4.4.2 Interior Decoration

It cannot be absolutely sure whether such decoration was also missing from the building as before the fire of 1911. Yet, it is considered that in reality this has been the case. The two section drawings Fig. 06 and especially Fig. 03 show an elaborate decoration for the main amphitheatre: The two-storey room is divided in two parts, the lower one is divided in stripes creating an imposing base for the upper one which is arranged in surfaces surrounded by Corinthian pilasters. There are even some niches decorated with statues!

Even if this was actually the decoration of the amphitheatre in its first phase, the utilitarian character of the building in total and its modesty already since it was built is considered most possible. The photographs of the interior of the rooms as in the 1920s are a proof about that. But the modesty of the building is also being underlined by Anastasios Christomanos who comments: "... The only marble parts that someone can see are found in the Propylo and the staircase. Everywhere dominates absolute frugality". Then he gives a very detailed description of the amphitheatre but makes no mention to any possible decoration, focusing on the number of the students that can fit in the room. At some point of he speech he concludes that the materials of the floors and the doors ought to be better.²⁹

4.5 Movable and Unmovable Equipment

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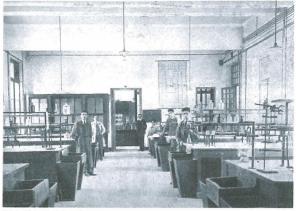
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If the building is and has always been poor in luxurious building materials or decorative elements, the same does not apply for the equipment of the chemical and the physical laboratories.

As far as the physics department is concerned, its instruments collection grew very big especially after the Convention of Versailles was signed and a certain amount of money that was to be paid to Greece by Germany was instead "paid" in the form of physics' equipment produced in Germany.

The photographs from the 1920s also prove that the Chemistry Laboratories were already at that time equipped with experiment workbenches and devices for the removal of the produced gases. The layout of the rooms appears very similar to the respective rooms of the laboratories of the Institute of Chemistry in Graz –as it can be judged from the photographs of the same period. It is quite possible that some of this equipment was replaced in the 1950s–1960s. This is said because not all of the equipment appearing in the photographs of the 1920s can be found in the building today; it is also said because in the 1950s–1960s the Institute of Chemistry of Graz was as well refurbished and the furniture of that time so much resemble the ones that are still found in the Old Chimio today.

²⁹ Speech of Anastasios Christomanos (Num 983, Athens, January 1888) included in the volume "ΛΟΓΟΙ ΓΕΩΡΓΙΟΥ ΚΑΡΑΜΗΤΣΑ, ΠΡΥΤΑΝΕΩΣ ΤΟΥ ΕΘΝΙΚΟΥ ΠΑΝΕΠΙΣΤΗΜΙΟΥ KATA TO AKAΔΗΜΑΪ́KON ΕΤΟΣ 1886–1887. (SPEECHES GEORGIOU KARAMITSA, DEAN OF THE NATIONAL UNIVERSITY DURING THE ACADEMIC YEAR 1886–1887). p.204–209



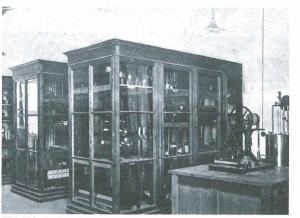
Old Chimio Fig. 1



Old Chimio Fig. 3



Old Chimio Fig. 5



Old Chimio Fig. 7



Old Chimio Fig. 2



Old Chimio Fig. 4



Old Chimio Fig. 6



Old Chimio Fig. 8

Source: "Athinisi Panepistimio"

As already mentioned, one of the tasks of this thesis was to record all the remarkable Unmovable Equipment of the building so that an inventory could be set up. This equipment is referred in this study as "Unmovable" Equipment to distinguish from the Movable one-that is all instruments and devices of -usually but not always- relatively small dimensions that are currently being registered by a team under the authority of the ministry of Culture. In reality the term "Unmovable" is used in a broad sense, for, at times some of this "Unmovable" Equipment like the Display Cases for example, despite their bulky dimensions can be actually moved.

The preliminary Inventory of the Unmovable Equipment produced includes:

- 1. Doors: 17 different types (15 Interior doors, 2 Exterior Doors). (Drw-05)
- 2. Cast Iron Seats: 3 different types. (Drw-06)
- 3. Wooden Tables: 3 different types and one Bookstand (Drw-07)
- 4. Display Cases and Book Cases: nine different types (Drw-08)
- 5. Workbenches for experiments: three different types. (Drw-09)

4.6 Protection of the monument

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The safeguard of such an academic institution that still preserves in place much of its equipment together with a very fascinating atmosphere refers to that area of Conservation, where, similarly to Industrial Archaeology this equipment is considered equally important with the edifice itself, as a testimony for the evolution of sciences.

In fact, in recent years there has been an increased interest for the protection of the monuments of the technical civilization; the equipment and the scientific instruments are considered extremely important for the History of Sciences and Technology. It has been within this framework that the ministry of culture decided the registration and documentation of the movable equipment and the instruments of the Old Chimio.

4.6.1 Listed rooms

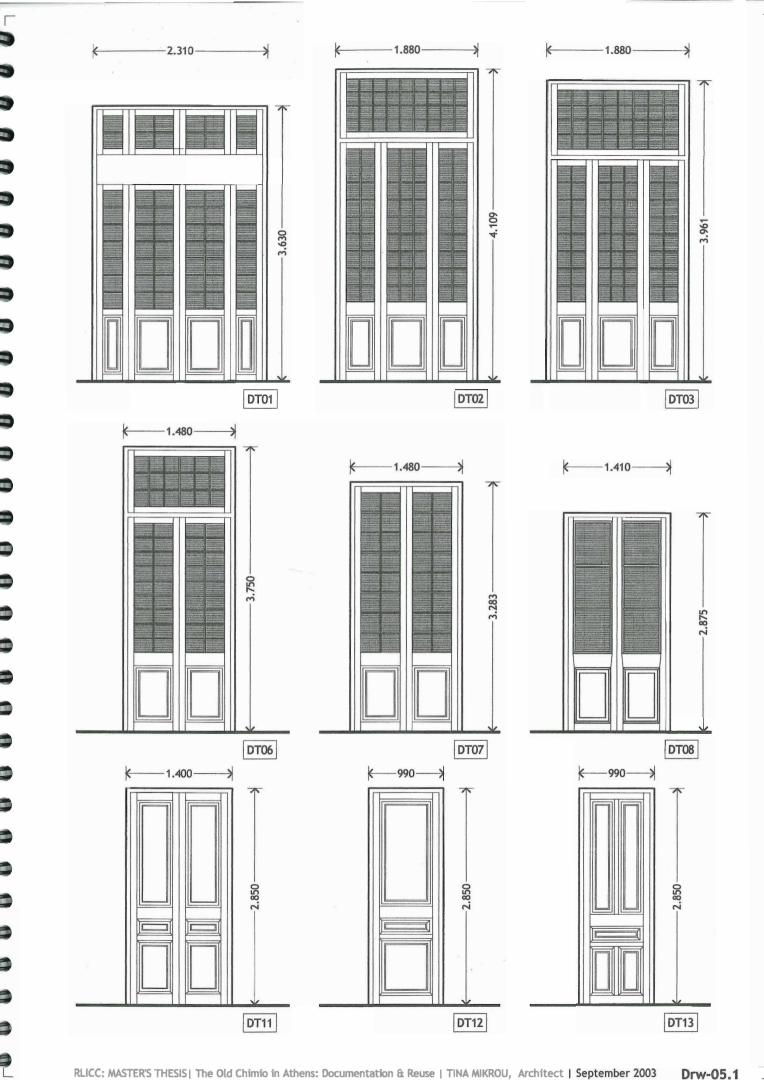
According to the Φ .E.K. 47/B' – 28/01/98³⁰, the Old Chimio and all of its equipment are classified as monuments to be preserved. In addition to that, some rooms in particular are listed to be preserved in situ:

In the Ground Storey:

- 1. The rooms of the western part of the southern wing where still lie all the components and installations of the radio station that used to transmit during the war times. Rooms 045, 046, 047, 048, 049, 050.
- 2. The lecture room in the eastern part of the southern wing. Room 054.

In the First Storey:

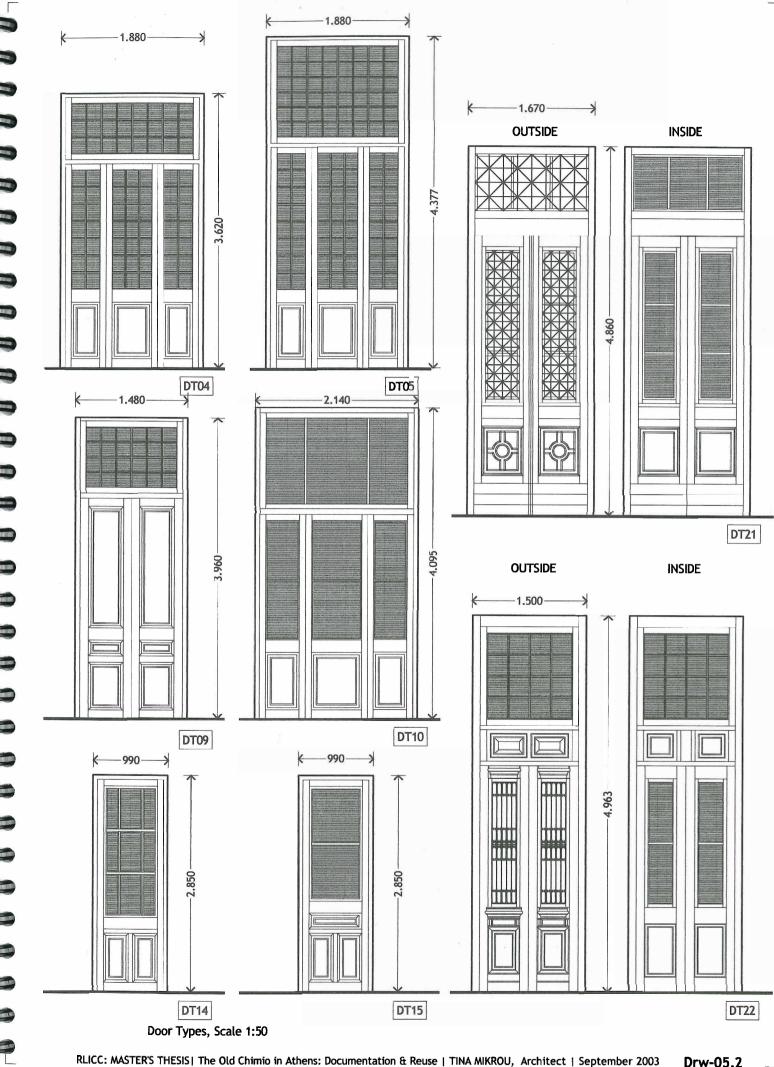
³⁰ Φ.Ε.K edition of the newspaper of the Government



RLICC: MASTER'S THESIS| The Old Chimio in Athens: Documentation & Reuse | TINA MIKROU, Architect | September 2003

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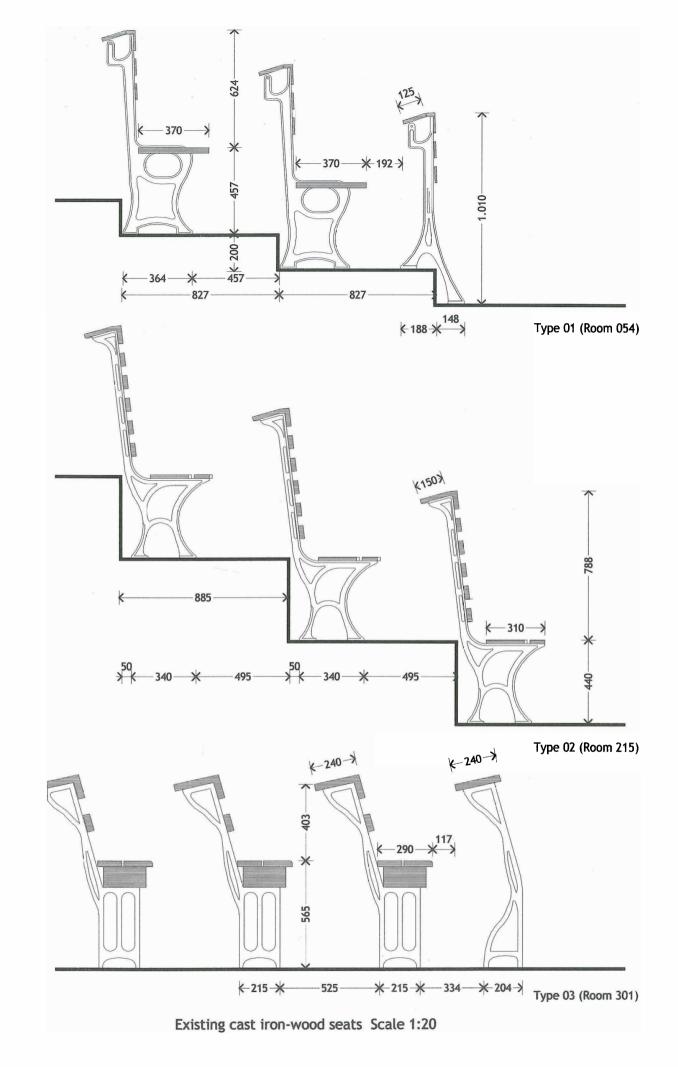
Drw-05.1



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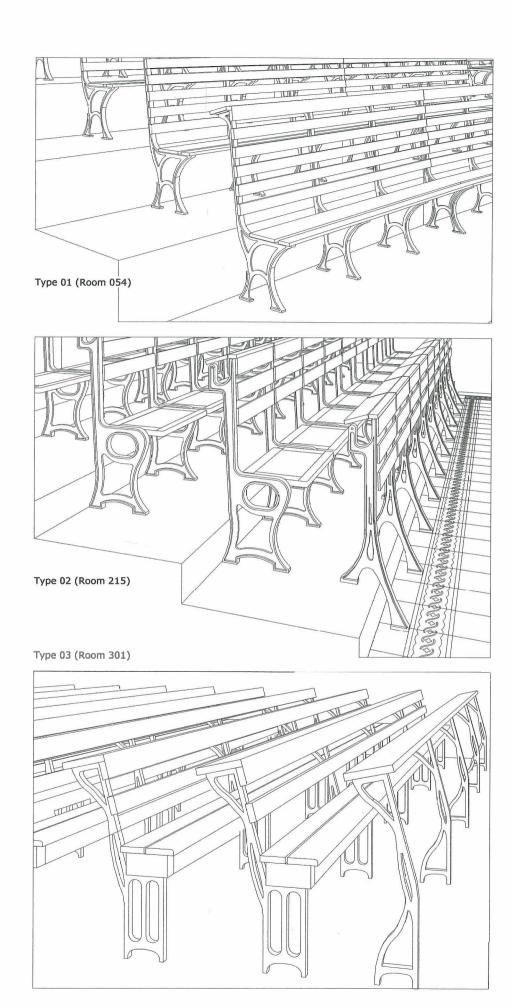
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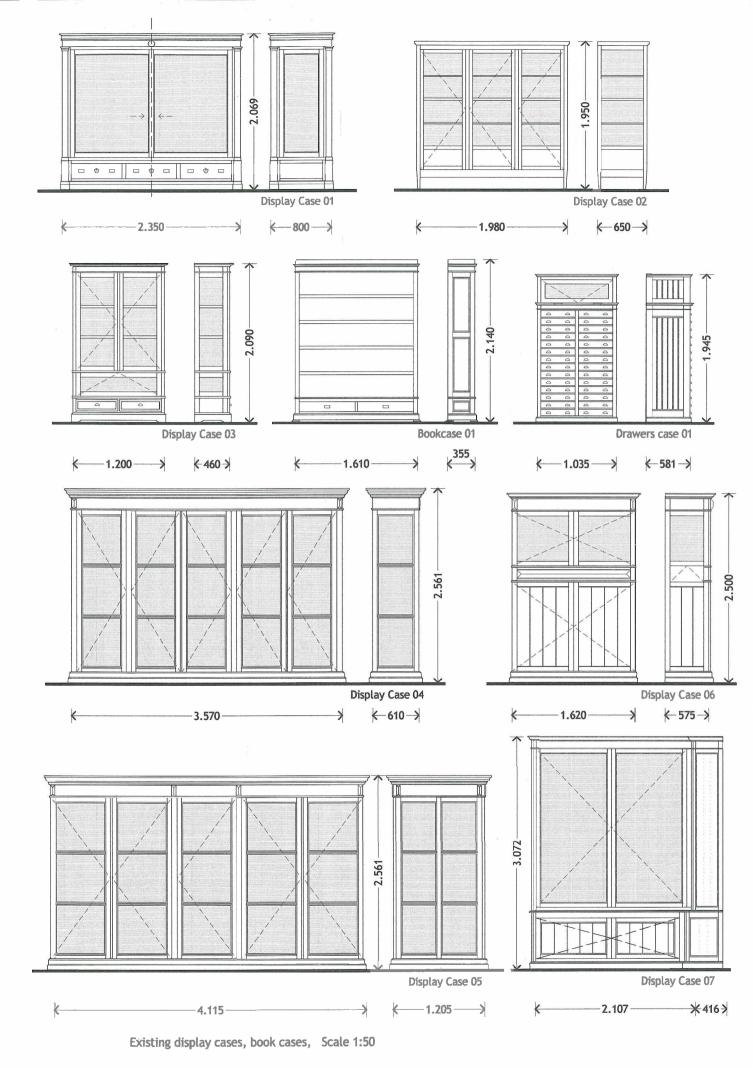




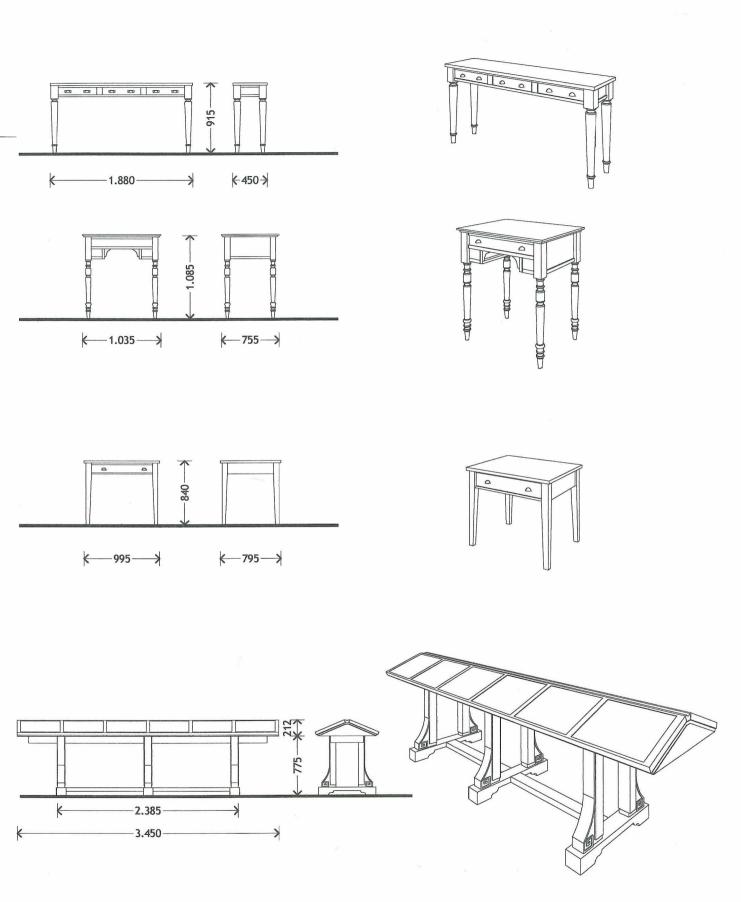
Existing workbenches and chimneys, Scale 1:50

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Existing Tables, Bookstand Scale 1:50

- The rooms of the eastern part of the southern wing where the office of professor Zeggelis used to be. Rooms 138, 139, 140
- 2. The western wing. Room 117

In the Second Storey:

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- 1. The western wing where the chemical laboratory used to be together with the workbenches. Room 210
- 2. The central wing where the main lecture room still is. Room 215

4.6.2 Proposal that more rooms be listed in situ

Because of their aesthetical and/or historical value three more rooms is considered that should be listed in situ:

- Rooms 009 and 010. In the eastern part of the northern wing in the ground storey, the so-called mihanourgio, a turnery-workshop, is equipped with lathes and other machines and tools for the maintenance and repair of the instruments of the Chimio. Such a room would be anyway necessary as the maintenance unity of the museum; the layout of this workshop and its existing decoration make it worth to be preserved as it is.
- Rooms 233 and 234. In the western part of the southern wing in the second storey, room 233, used to house the office of a professor and adjacent to the office was his personal laboratory room 234. (See photograph "Old Chimio Fig. 6). This is the only such layout (office + personal laboratory one next to the other) remaining in the building. Moreover than that, room 233 is one of the very few rooms –the only one in this storey– with a stucco decorative zone just behind the ceiling.
- Rooms 314 and 320. The western and eastern wings of the third storey are equipped with more recent work-benches that could however be preserved to ensure that different types of work benches referring to different periods are all present in the Museum.



Actual Situation Fig 01: Room 009



Actual Situation Fig 03: Room O54



Actual Situation Fig 05: Room 117



Actual Situation Fig 07: Room 210 $\rightarrow N$



Actual Situation Fig 02: Room 009



Actual Situation Fig 04: Room 054



Actual Situation Fig 06: Room 117



Actual Situation Fig 08: Room 210 $\rightarrow N$



Actual Situation Fig 09: Room 210



←N Actual Situation Fig 11: Room 215



Actual Situation Fig 13: Room 215 ←N



Actual Situation Fig 15: Room 233



Actual Situation Fig 10: Room 210



Actual Situation Fig 12: Room 215



Actual Situation Fig 14: Room 215 $\rightarrow N$



Actual Situation Fig 16: Room 234 ←N

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Actual Situation Fig 17: Room 301



Actual Situation Fig 19: Room 320 ŤN



Actual Situation Fig 21: Room 335



Actual Situation Fig 18: Room 320



Actual Situation Fig 20: Room 320 **↑**N



Actual Situation Fig 22: Room 335



Actual Situation Fig 23: Room 335 ←N

4.7 Actual State of Conservation

The building does not appear to suffer major mechanical damages or stability problems. Decay due to natural factors and malfunctions (e.g. water penetration) and filth are however most evident. Yet a more thorough inspection of the building in collaboration with a civil engineer would be required in a next stage

4.7.1 Exterior

The three façades that can be visible from the street have all been impaired by perforation that preceded the placement of air conditioning devices below the sills of or on the windows.

The southern -main- and the eastern façades suffer minor detachments of the plastered surfaces; more extended in the lower part -base- of the building more exposed to humidity as a result of the adjacency to the ground. Whereas the plaster of the western façade has been completely removed to prevent any accident by the loose and cracked plastered surfaces after the earthquake of 1999. The projecting cornice separating the third Storey from the rest of the building is also flaking.



Actual Situation Fig 24: West Part of Southern Façade



Actual Situation Fig 26: Lower Part of Eastern Façade



Actual Situation Fig 25: Western Façade



Actual Situation Fig 27: Lower Part of Western Façade

Writings, some painting –that attempts to hide the writings– and some accumulation of filth visually impair the marble parts of the Propylo, that are for the rest in a good state of conservation.

The stone fences defining the two parterres that flank the exterior staircase are in good condition whereas some parts of the iron railing on the top of the stonewall are bended and/or rusted. As for the parterres themselves are currently completely neglected. The existing seats are broken. They are also hidden by overgrown vegetation and so are parts of the façade.

The doors and the windows are in relatively good condition.



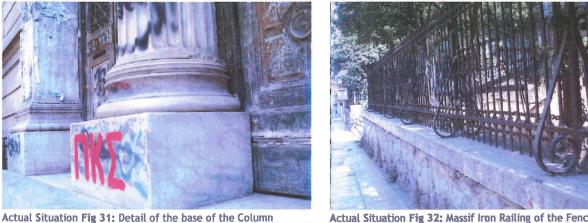
Actual Situation Fig 28: Upper Part of Propylo



Actual Situation Fig 29: Lower Part of Propylo



Actual Situation Fig 30: Part of the Western Facade



Actual Situation Fig 32: Massif Iron Railing of the Fence

4.7.2 Interior

The general impression of the interior is that of complete neglect and accumulation of layers of filth. Smaller and bigger vertical and horizontal tubes and wires hanging all over the corridors, writings on the walls and spider's webs create a feeling of confusion and add to the general atmosphere of degeneration.

Water penetration through the small terrace over the Propylo has created humidity problems especially in the space of the main staircase. Parts of the plastered surfaces of the walls in this area are already or will soon be detached. The rest of the plastered surfaces in the interior are in relatively good condition.



Actual Situation Fig 33: Main Staircase (From R041 to R100) ↓N



Actual Situation Fig 34: Main Staircase (R041) $\rightarrow N$



Actual Situation Fig 35: Main Staircase (towards R100) ↓N



Actual Situation Fig 36: Main Staircase (R128)



Actual Situation Fig 37: Main Staircase (R128 to R200) ←N

The "granito" floors are all in very bad state. They have been worn out, and small stone pieces are missing. Most important, big surfaces have been perforated to allow for tubes to pass through so that cement patches can be seen here and there. In several rooms these patches are hidden below plastic tiles that create an ugly impression, worse even, when parts of the plastic tiles are worn out or missing. The cement–tile floors preserved in only a few of the rooms, present minor damages.

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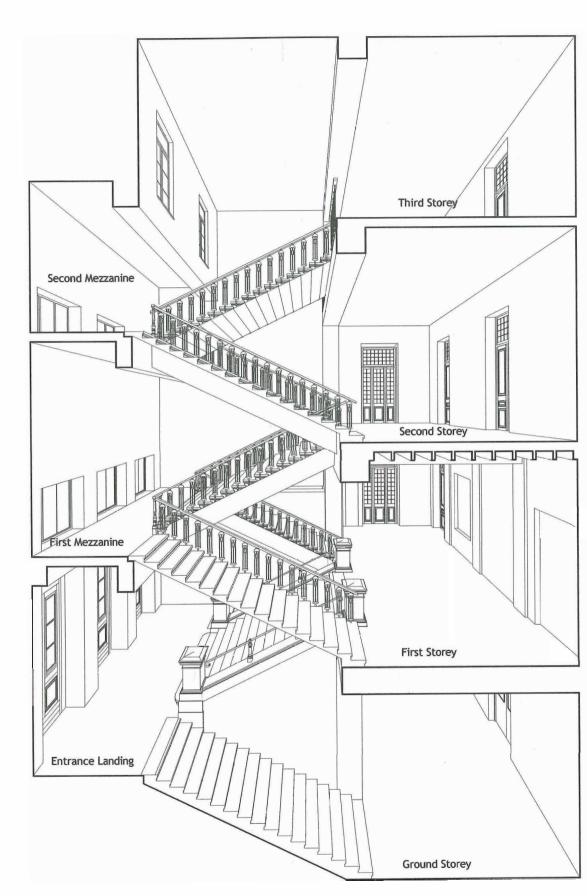
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False roofs, extremely deteriorated, hide the ceilings in most of the rooms of the First Storey.

The steps of the marble staircase are worn out —especially in the middle of their length. The handrail composed of elaborate cast iron balustrades and a wooden handle, is missing some elements, yet it appears absolutely stable. The inclined beams that connect the concrete beams of the ceilings of the first and ground storeys with respective beams of the ceilings of the southern landings of the main staircase have significantly altered and visually impaired the side views of the flights. What used to be a very fine selfbearing staircase composed of whole marble parts incastrated one into the other is now a very heavy structure.

The wooden doors and windows are in relatively good condition. Some are broken or have missing parts such as handles, lockers or glasses and wooden panels.



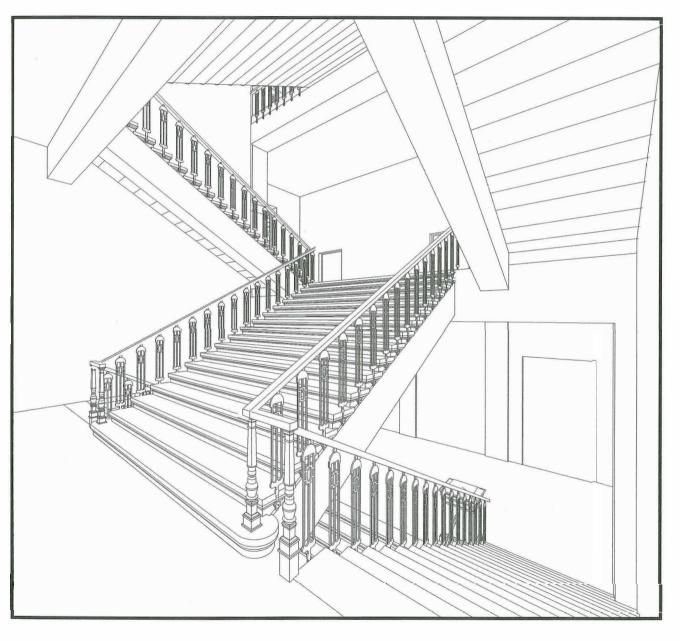
Perspective Section of the Main Staircase





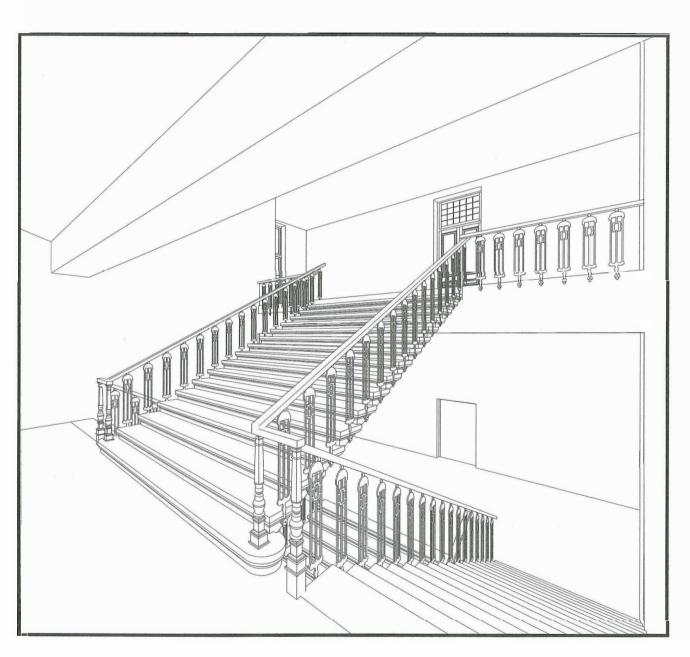
Main Staircase. Perspective View of the flights connecting the Entrance Landing with the Ground and the First Storey





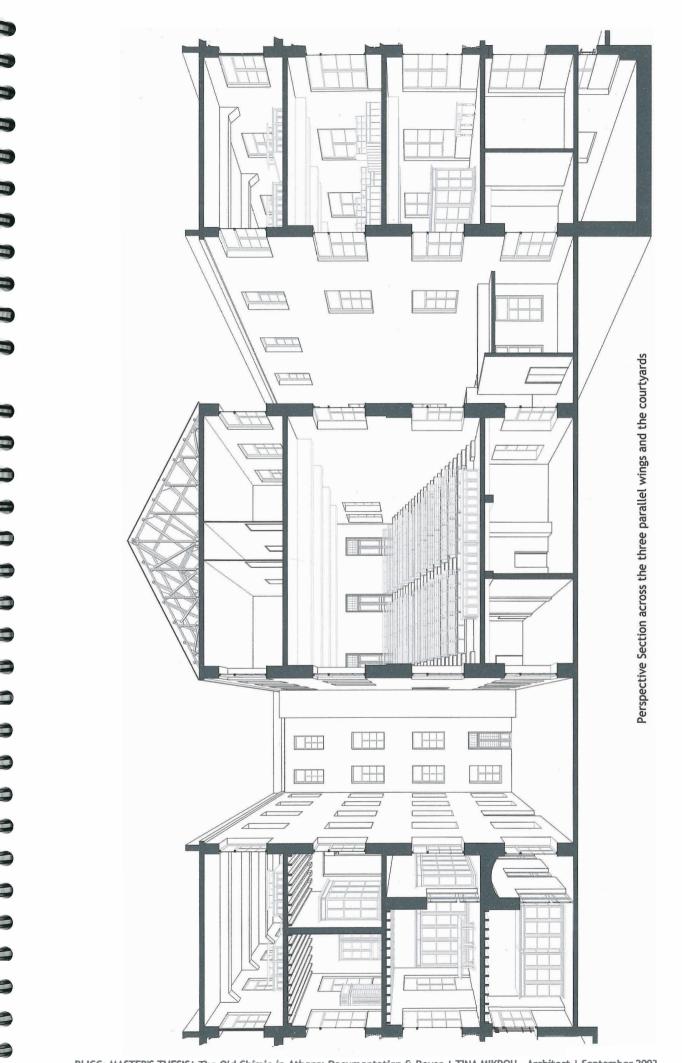
Main Staircase. Perspective View of the flights connecting the First Mezzanine with the First and the Second Storey

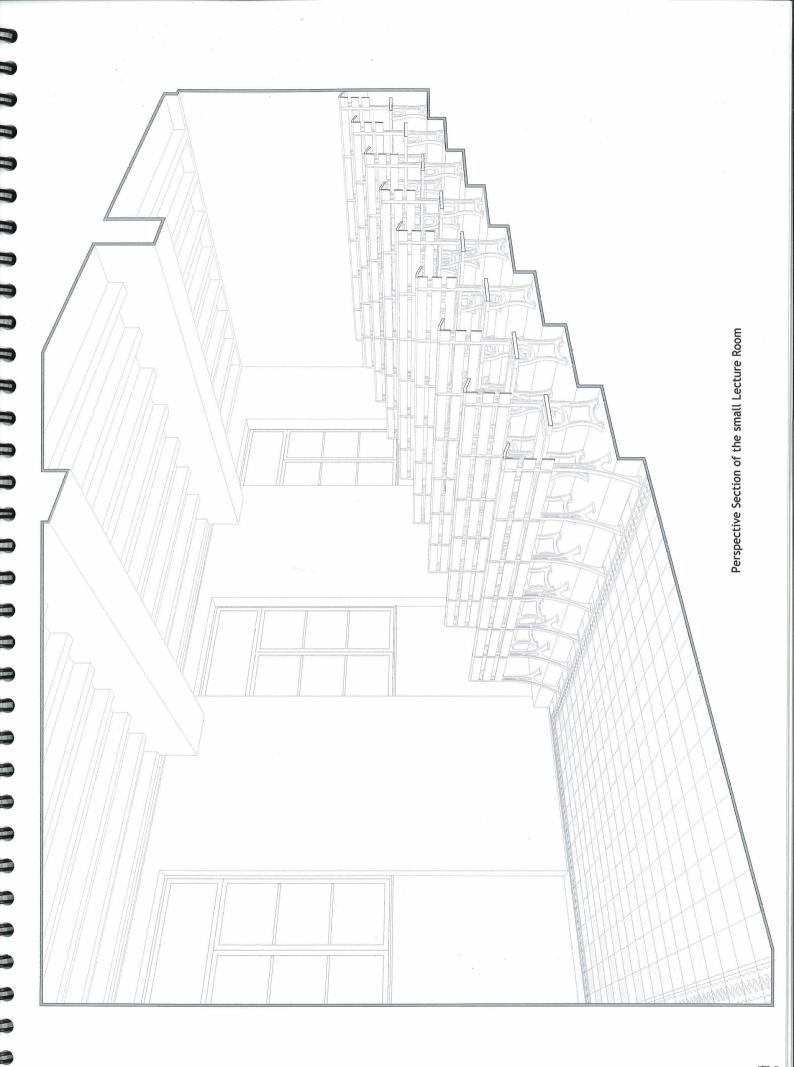




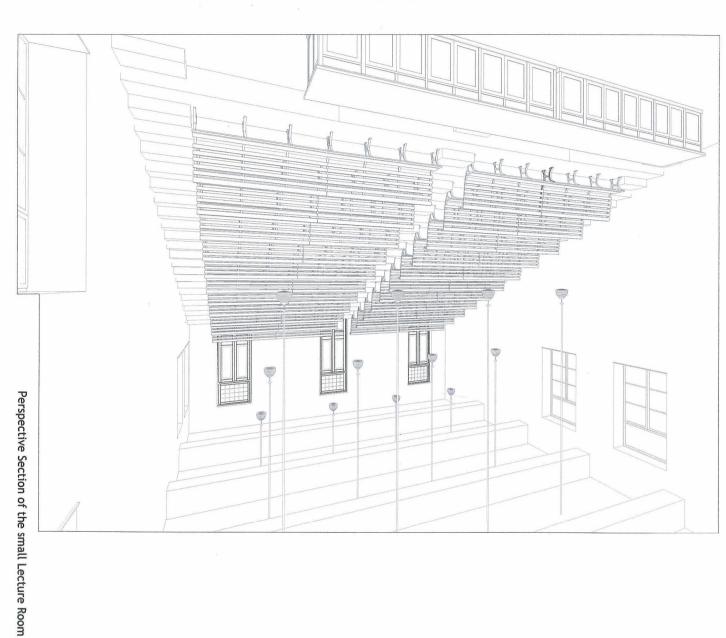
Main Staircase. Perspective View of the flights connecting the Second Mezzanine with the Second and the Third Storey

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Perspective View of the Main Lecture Room

5. REUSE

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5.1 Synthesis

Before proceeding to the elaboration of a global plan of Conservation a synthesis of the results of the historical, urban, architectural and technical analysis is necessary.

5.1.1 Evaluation of the building as in its current state

The proportions of the façades totally changed when the Second and the Third Storey were added. However they were thereafter organized in a composition that brings several neoclassical features and is considered successful although slightly less elegant. In the current state disturbing elements spoiling the facades are mainly the air-

conditioning devices and the detached plastered surfaces.

The plans in all stories follow the general layout as indicated in the drawings designed by Ziller. Modifications from later building phases mostly regard the subdivision in smaller rooms to accommodate more activities.

The two courtyards are among the features of the building that have been more seriously affected by the addition of the Second and then the Third Storey. These two stories obviously increased the height a lot and subsequently, totally changed the proportions of the courtyards converting them into what more resembles airshafts. Moreover than that, the presence of the pipes in several casual positions, the different colorations, the rubbish and some growing plants have so much decreased the quality of these spaces and contributed to a dramatically miserable atmosphere. The two constructions in the western courtyard with very small historical and absolutely no aesthetic value additionally reduce its quality.

The formerly very elegant self-bearing flights of the main staircase are very much spoiled by the inclined beams.

The three lecture rooms are equipped with marvelous cast iron and wood seat preserved in a rather good condition. The aesthetical value of the main lecture room in particular is however



Actual Situation Fig 38: Western Courtyard



Actual Situation Fig 39: Eastern Courtyard



Actual Situation Fig 40: Eastern Courtyard

very much affected by the very poor quality of the materials of the floor, the alteration of the size of the windows as seen from inside, the absence of absolutely any decorative elements.

5.2 The values of the Building

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The **Architectural** value of the Old Chimio is undeniable, for it is an example –perhaps the only one in Greece– of a particular building type designed on respective European standards. It is also a very interesting case study of a Neoclassical composition of the 1890s that evolved through time to reach its final aspect in the 1930s though the reinterpretation of the neoclassical "vocabulary" according to the aesthetical standards as defined by that time (e.g. the use of the double height pilasters that succeed to unify the façades and emphasize the vertical dimension). The fact that it is associated with Ernst Ziller increases its value as a source of architectural information related with the study of the work of this popular Architect.

Related with significant historical moments of the country, and bearing various building phases indicated by different structural systems, it has no doubt increased Historical Value. More over than that it still contains an invaluable source of historical evidence: a "temple" of the Natural Sciences where a lot of testimony as to the development of Chemistry and Physics in Greece can still be found. Walking around the -sometimes overloaded- rooms is a magnificent experience for the architect, the chemist but also the non expert: like in a time machine, all of them will enjoy the fascinating atmosphere of a chemical laboratory with the working benches and the shelves full of devices for experiments and dusty vases of so many different shapes. The display cases full of thousands of bigger or smaller instruments showing the evolution of physics will certainly attract the attention of any visitor as well. As for the cast iron and wooden benches, no one would resist sitting on their hard and uncomfortable surface to pretend he is attending a lecture as in the 1920s, from the same position where some, famous now, physicist or chemist would have sat. All the image, the information, the reference is still there, offering an opportunity for an immediate experience of the period of the last 100 years, during which these sciences were born and developed in Greece.

The **Environmental** value of the Chimio refers to the interaction with its surroundings. Standing as a very sad and miserable Landmark on Solonos Street, its reintegration into the life of the city would certainly contribute to the revitalization of its immediate surroundings.

As value of **Use** is meant the indisputable opportunity to reuse 4000 m2 that lie at the moment neglected and "forgotten".

5.3 The Choice of the New Use

"The Conservation of monuments is always facilitated by making use of them for some socially useful purpose. Such use is therefore desirable but it must not change the layout or decoration of the building. It is within these limits only that modifications demanded by a change of function should be envisaged and may be permitted".³¹

What is an urgent need today is the reintegration of the building into actual life, so that further deterioration can be avoided, conservation can be ensured and a socially useful purpose can be fulfilled. Any new use that would contribute to the continuation of the being of the monument and would require minor interventions as far as the existing layout is concerned is theoretically welcome. Nevertheless, in this process of elaboration of alternative scenarios, the initial use of the building, the function it was originally planned to serve, should be seriously taken into account as a definitive parameter.

The Old Chimio is a property of the Kapodistrian University of Athens. As such, more than one Departments of the University have shown during the past few years an increased interest as to the revalorization and the reuse of the building for their own purposes.

This on one hand is good, for it proves the acknowledgment of the "prestige" of a particular Historic Building. It is also an indication of a socially amplified –but at times also rather superficial– sense of appreciation towards the aesthetical values of the Historical –broadly mentioned as Neoclassical– Buildings in general.³² On the other hand however this "revendication" among the different interested parts has prevented the actual implementation of any plan of conservation.

It is not the object of this thesis to say which Department of the University has more rights than the other to use the building. Yet, it seems quite reasonable that an edifice that has been originally designed for, and throughout more than 100 years has been associated with, the Departments of Chemistry and Physics, all of a sudden shifts to the administration of the school of Law for example. This is also a matter of "collective memory" which should be taken into consideration; it seems fair enough that the Old Chimio –as its name suggests– should better be also in the future linked, at least conceptually, with an activity that has something to do with the Natural Sciences.

5.3.1 The Contemporary Debate going on

Two projects regarding the rehabilitation of the Old Chimio have come to our attention:

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³¹ INTERNATIONAL CHARTER FOR THE CONSERVATION AND RESTORATION OF MONUMENTS: ARTICLE 5. ICOMOS – 1966

³² The historical buildings in Greece are generally recognized as "Neoclassical" by the broad public; even if they belong to other than this period or bring decorative elements that refer to other architectural styles, such as eclecticist, arts-nouveaux etc. While so many of these buildings were demolished in the 1950s-1970s, during the last thirty years the sensibility for their safeguard is growing always bigger. Several of them – both of major and minor scale and/or importance- have been renovated and restored – not always very successfully though- to accommodate new activities. This tendency – or maybe trend (?)- is certainly being enhanced but at the same time also enhances the improvement of the aesthetical criterion of the people.

Project 1: entitled "Restoration of the Old Chimio and Conversion of the Space into Library". Submitted in 1994 by the architectural team: Bogakos, Kourmouli, Raptis, Pandazis OE. Advisor: P. Kalligas

Project 2: entitled "Modification and Adjustment of the Existing Project of the Old Chimio". Submitted in 1997 by the same architectural team and advisor M. Tillianakis.

Project 1 completely ignored any remnant of history inside the building and met the strong opposition of the "Society of the Friends of the Museum of Natural Sciences" who then applied for the listing of the building and its equipment; which indeed happened and certain rooms were classified in situ.

Project 2 was in reality a revised version of Project 1 that took into consideration the new facts as far as the Preserved in Situ Rooms are concerned. The technical report accompanying the drawings³³ refers to the "conversion of the Old Chimio into a Museum of the History of Natural Sciences and Technology and the creation of space for the needs of the Central Library of the University of Athens. What seems, an attempt to satisfy both the two parts -- the society of the friends of the Museum of Natural Sciences and Technology and the those arguing for the conversion of the Chimio into the central library- is the result of the restrictions of the ministry of culture that has listed in Situ at least one room in each different floor. It is evident in this project that the dominating function in the Ground, First and Second Stories, is the one of the Central Library. In the ground Storey, the rooms where the installations of the radio station are set, and the small lecture room are preserved; the majority of the rest of the rooms are unified to allow big reading rooms to be created. The same applies for the First and Second Stories where, the Main Lecture room, the Chemical Laboratory and the Professor's office are preserved while most of the division walls are demolished so that big spaces can better serve as reading rooms. The Third Story is aimed to serve as the Museum of Natural Sciences and Technology. It appears on the drawings with big unified rooms two in each of the Northern and Southern Wings and one in each of Eastern and Western Wings. The idea behind these big rooms is that since there is no museolographical study at the moment, whenever this will be available the space will be adequately arranged according to the proposed specifications.

The above-described arrangement obviously slightly changes the original typology of the building – the smaller rooms are unified for instance- and creates a rather "strange" coexistence of quite different functions –Reading Room, Room for Various Cultural Activities, and a Chemical Laboratory, one following the other in the Second Storey. The project also ignores any, other than the Listed in Situ, remarkable equipment of the building. Concluding, the idea is to create as much as possible space for the needs of the Library but –since it cannot be otherwise- preserve some remnants of the former use.

³³ The drawings of the project have been kindly provided by Mr. M. Tillianakis

These comments should by no means be considered a critic to the architectural composition or the authors of this composition, the architects are obviously only trying to fulfill the requirements as defined by the program of functions suggested by the University. The intention is to stress that the attempt to incorporate the two quite different uses into the same context is followed by disadvantages and harms the "personality" of the building. The main objection is that by integrating a library into the building, a lot of the valuable existing material will have to be removed. At the same time, by trying to fit together the two uses, not much chance is left for either a <u>proper</u> Museum of Natural Sciences and Technology, or a <u>proper</u> Central University Library to be set up.

5.4 Elaboration of a Global Plan of Conservation.

"Items of sculpture, painting or decoration which form an integral part of a monument may only be removed from it if this is the sole means of ensuring their preservation.⁴⁹⁴

It is probably already clear that this study pays particular attention to the equipment of the old Chimio and considers this an indispensable parameter as far as the Restoration of the building is regarded. Although the above article from the charter of Venice mostly refers to decorative or artistic elements, it is used here to emphasize that similarly to items of sculpture, painting or decoration, the Unmovable Equipment of the Chimio constitutes an integral part of the monument; certainly any proposed removal of a big part of this equipment to new premises is not being suggested for the insurance of its preservation. On the contrary, it is for granted that such removal will decrease much of the value of the equipment –both aesthetical but also as a source of historical evidence—that was meant to be in a particular setting, placed in a particular manner, lighted in a certain way. But it will also decrease much of the value of the edifice when deprived of its "soul"; not to mention the possibilities of loss, misplacement etc.

5.5 Similar Case Studies

It was among the aims of this study to investigate what has happened with the Chemical Laboratories or Natural Sciences buildings of other Universities or Technical Schools in Europe. Whether these are still being used as such –and if so whether they have still maintained the equipment of previous periods, or whether they have been converted into museums where part of this equipment is among the exhibits or whether at the end they accommodate new uses that have nothing to do with the original ones.

At the end, the answer to this question was possible only in two cases:

The **Old Chemistry Building of the University of Graz** was renovated in the 1980s and a brand new modern building was erected just next to the old one. The Old Chemistry Building got new equipment and is housing now laboratories, seminar rooms and

³⁴ INTERNATIONAL CHARTER FOR THE CONSERVATION AND RESTORATION OF MONUMENTS: ARTICLE 8. ICOMOS – 1966

offices of Analytical Chemistry and small parts of Inorganic Chemistry, Pharmaceutical Chemistry and Biochemistry. The old lecture rooms were removed; the new lecture rooms are now accommodated in the adjacent new building. "Unfortunately we kept no museum in the Old Chemistry building because there is too little space for such rooms."³⁵ However the old equipment is document through a series of detailed photographs.

The **Institute of Natural Science of the University of Berlin**, is now used as an institute for microbiology and hygiene of the University Hospital while part of it was converted into the Robert Koch Museum, because Robert Koch the discoverer of the tuberculosis-bacillus worked there until 1891. As can be seen in actual photographs of the building and if compared to the relative section drawing, at least the decoration of the main lecture room remains still the same.³⁶

5.6 Options for the New Use

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Two alternatives were considered in the phase of the elaboration of a Global plan of Conservation; these have in common that on one hand are linked with the Natural Sciences and on the other allow –or better say require the preservation of a big part of the existing equipment as one indispensable feature, "actively" integrated in the new activity. More over than that, the actual layout of the building could effectively serve the needs of any of the two these activities with only minor interventions.

- The Chimio on Solonos Street could become again School of the Natural Sciences. A "branch" of the departments of Chemistry and Physics in the City Center that would function additionally as to the main buildings in the University Campus. There, some courses related with the History of Natural Sciences could be taught and certain experiments that require the specific old equipment could take place. In this case some rooms could perhaps be equipped with contemporary instruments and devices.
- Use the Building as a Museum of Natural Sciences and Technology, where educational activities can take place and certain courses from the school of Physics or Chemistry can be supported.

The first alternative respects the initial use of the building. The second respects a big part of the actual installations inside the building; at the same time the educative role of the building is retained. The second alternative was selected as a more feasible one – since the distance between the University Campus and the City Center is quite long thus it might not be that convenient for students to move from one place to the other.

³⁵ Dr Wolfgang Stadlbauer, Professor at the University of Graz, kindly offered the above information and several relative photographs through electronic mail.

³⁶ Mr Bernhard Kohlenbach kindly offered the above information through electronic mail.

A similar approach has been adopted for other important institutions in the nearby area. The National Library is actually being converted into what will more resemble a library museum addressed mainly to researchers; -there the oldest, most valuable collections will remain while the rest will be removed to new premises. The Eye Clinic is also actually being remodeled to a relative museum. The School of Georgios Papadopoulos has already been rearranged to house the offices of professors emeritus.

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Yet the idea is that the Museum of Natural Sciences and Technology be addressed to a <u>broad and not very specialized public</u> that could not guarantee the success of the whole attempt. Therefore, schools could include visits to the Old Chimio for young pupils to attend experiments and the academic program of the faculties of the Natural Sciences should require that certain courses be taught there. On the other hand and in order to make the Museum more attractive and ensure its liveliness, complementary activities are proposed to be housed in its premises. As such are considered the creation of a specialized and up-to date bookshop related to the Natural Sciences; the existence of an attractive café where the students of the adjacent New Chimio or the School of Law –and of course not only them - could meet; the organization of temporal exhibitions and other events in the atriums on a regular basis; the hosting of conferences and other meetings in the main lecture room.

6. THE MUSEUM OF NATURAL SCIENCES AND TECHNOLOGY

6.1 Background

The notion of Heritage nowadays equally applies and includes non-material sectors such as music, cinema, languages etc. In this framework the chemical Heritage or the Natural Sciences Heritage may also be considered worth to be preserved.

6.1.1 The Chemical Heritage

As far as the Preservation of the Chemical Heritage is concerned, there seems to be an interest about it in international level:

"Preserving this rich history and celebrating the men and women who bestowed this brilliant legacy on us all, and educating future generations" is among the aims of the Chemical Heritage Foundation; an organization created to "serve the community of the chemical and molecular sciences and the wider public by treasuring the past, educating the present, and inspiring the future".³⁷

The preservation of the equipment of the Old Chimio in its original context is no doubt a way of safeguarding valuable information regarding the history of Chemistry in Greece.

6.1.2 History of the Museum of Natural Sciences and Technology

The Museum of Natural sciences and Technology was set up already in 1838 under the name "Instruments Fund". In 1996 the Council of the University approved the establishment of the Museum, yet many of its exhibits already existed as a Collection of Instruments since the 1850s. The museum is housed at the moment in the premises of the Old Chimio, in the sense that all the movable and unmovable equipment that can be found there is considered property of the museum. However the museum is not open to the public or the students since there is not the necessary adequate infrastructure. Thus the Old Chimio is at the moment the Museum's "Conservatory". "The Task of the Museum is to present to the society the achievements of the various sectors of the Natural Sciences and Technology through exhibitions and "touch on" installations" and "accomplish an important role educating young people in technological and natural sciences issues, additionally as to the education provided at schools and other institutions of the country".³⁸

6.1.3 The Museum of Arts et Métiers in Paris

The Museum of Arts et Métiers in Paris was examined as a case study that presents similarities as far as the concept –of the Museum of Technological Innovations–

³⁷ http:www.chemicalheritage.net as in 30 of July 2003

³⁸ <u>http://www.cc.uoa.gr/physics/odigos/mouseio.html</u> (As in 20/07/2003)

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http://www.arts-et-metiers.net

Educative Conservatory– but also quite a few of the exhibits and the display cases are concerned.

Abbé Gregoire formed in Paris in 1794, under the name Conservatoire des Arts et Métiers, a depository for machines, models, tools, drawings, descriptions and books in the areas of the arts and trades". The reason behind this initiative is that "he wanted to unite knowledge in the technical fields and put together a three dimensional encyclopedia that would serve as a model, a reference and an incentive to inventors, researchers and curious people of all social standings."³⁹ The museum was closed for renovation in the early 1990s to allow for a better presentation of the exhibits and was reopened in 1995. At the moment only 2000 out of 8000 objects are actually on display!

6.2 Main Tasks and Principals of the Conservation Project

6.2.1 Tasks

The Conservation Project develops on the basis of the arrangement of the space that will house and efficiently serve the first and only Museum of Natural Sciences and Technology in Greece. It has been a great fortune that a collection of so many different instruments, devices and installations from different periods has survived. It is thus considered so reasonable that the University should take profit of it and use it in the direction of educating future generations by supporting the attempt and supplying the appropriate means and funds. It is also considered a feasible perspective that the manufacturers of some of these instruments –firms like SIEMENS, AEG etc– would be willing to sponsor such an effort, if they were aware of the existence of these object, for their collective and historical value.

Given the agreement of the University and the reassurance of the necessary funds a museographical study should be put forward thereafter.

In the current stage, the thesis deals on one hand with the general arrangement of the rooms through the composition of a preliminary program of functions –which would probably need to be revised once the museographical study would be ready. On the

³⁹ Musée des "Arts et Métiers", a special issue of "Connaissance des Arts"

other hand it discusses the restoration of the building itself, that is the restitution to its original form as finalized in 1926.

6.2.2 Aims and Principals

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Among the primary aims of the project is to reveal all of the qualities and values of the building respecting its original layout and concept. The idea is not to return to some particular building phase but keep them all and let them visible, for they all represent the material evidence of the history of the Old Chimio; any traces indicating the existence of former phases should also be preserved (the holes of the balustrade on the marble stairs where the second floor used to finish for instance).

Another aim is to recreate the atmosphere of the past inside the rooms using as much as possible of the existing furnishing still found in the building and taking into consideration the old photographs.

The "rough" character of the building is also to be preserved. The lack of any luxurious building materials –other than the marble staircase and the marbles of the Propylo– and the absence of any decorative elements in the interior lead to a similar approach in the stage of the proposed building materials where replacements or modifications are suggested. Correct coloring is also one of the major concerns.

Demolitions are proposed where a latter building phase has altered the layout –and subsequently the concept– of a former phase (e.g. the division walls of the western wing of the Ground Storey). They are also proposed for the disturbing constructions inside the western courtyard.

Features of the building that have been more seriously affected as a result of the different building phases or by the implementation of specific constructive solutions (e.g. courtyards and main staircase) is proposed that they be reconstituted to their original proportions and form.

6.3 Plans: General description of the distribution of uses

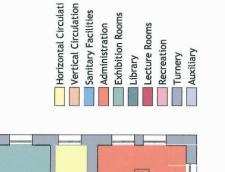
A set of drawings was composed showing the proposed distribution of uses as defined in the Draft of the Program of Functions.

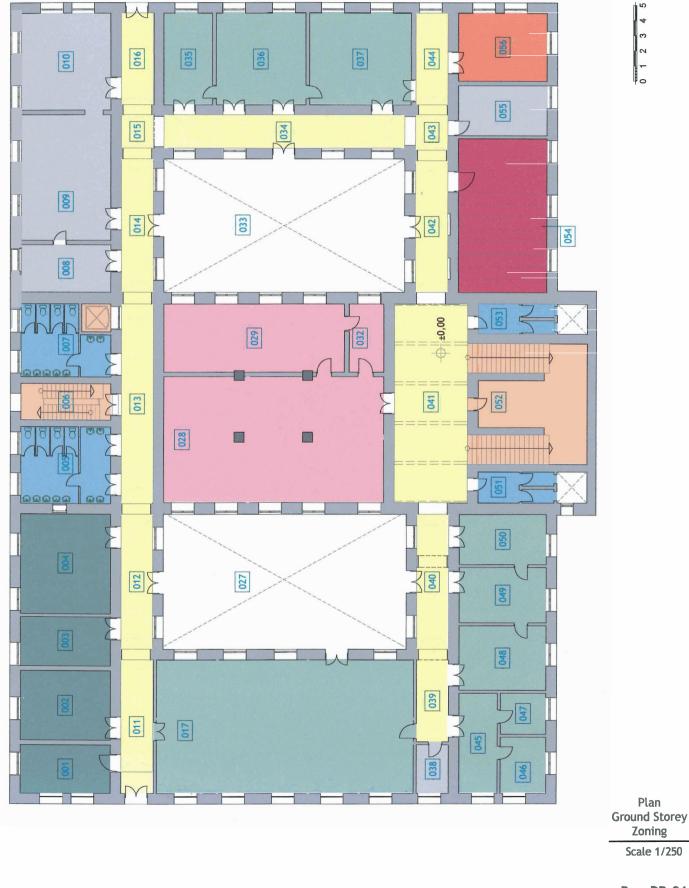
Ground Storey: In the western part of the southern wing of the ground storey (Rooms 045-050) can be still found the equipment and installations of the radio station that allowed the communication with the Greek troops during the military expedition in minor Asia in 1922 and that was secretly in function during the Second World War. Apparently this equipment has exceptional historical value and should be preserved and exhibited as such. The western and the eastern wings are reserved for exhibition rooms. The western part of the northern wing is used for book keeping. The eastern rooms of the northern wing are actually equipped with all the necessary machines and tools for the

maintenance and repair of instruments of the museum and are maintained with the same function. A small lecture room occupies the eastern part of the southern wing; this

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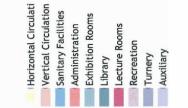


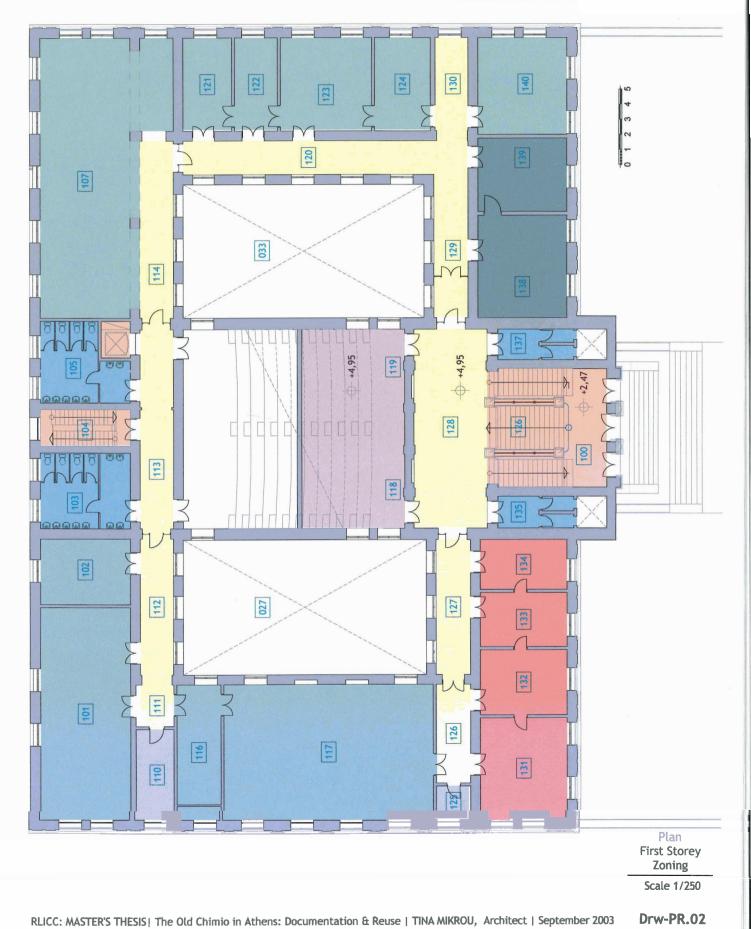




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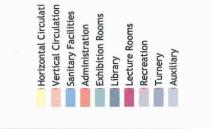


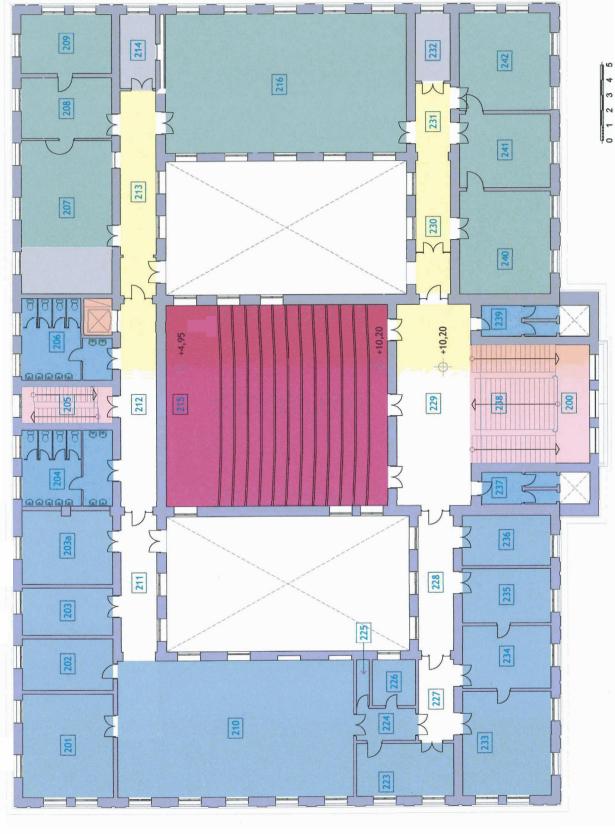






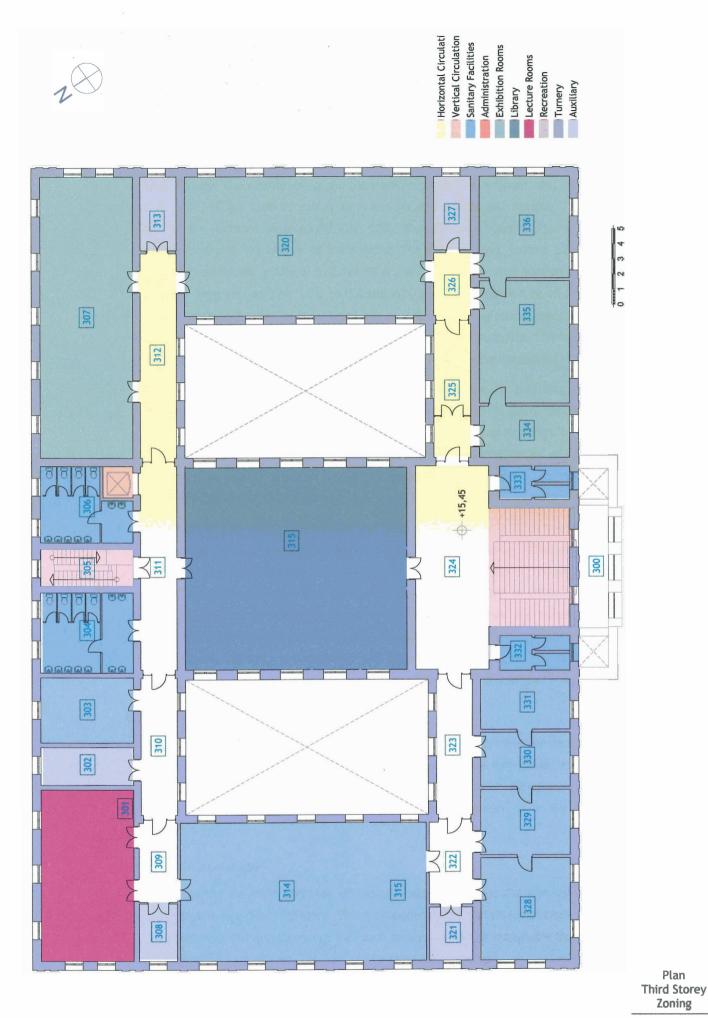






Plan Second Storey Zoning Scale 1/250

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is also maintained. The central wing is used for recreation purposes, what was above described as the incorporation of "other activities to ensure the liveliness of the project". Therefore an attractive café and a multimedia center are planned in the central Rooms 028 –032 extending also to the flanking atriums.

First Storey: The western wing and the western part of the northern wing (rooms 101, 102, 116–117 are used as exhibition rooms for instruments and devices. The eastern part of the northern wing (rooms 107, 108,109 unified into room 107) are exhibition rooms displaying the history of the building The Eastern wing, (rooms 121–122 and 123–124) exhibition, a tribute to Ernst Ziller's work in Greece. The eastern part of the southern wing (rooms 138, 139, 140) listed in situ, is preserved as it is; all the decoration of professor's office is maintained and so are the reading rooms preceding it. The western part of the southern wing is used for administration purposes. The rooms below the main lecture room (rooms 118, 119) are unified to house the specialized bookshop.

Second Storey: All the rooms in the Second Storey are Used for Exhibiting except for the central Main Lecture Room intended to serve lectures from different departments of the University but also host scientific and other conferences and meetings. In particular Rooms 210 (listed in Situ), 223 –226 and 233-236 are maintained as an "ensample" comprising in a raw a chemical laboratory, preparatory rooms and a professor's office with the adjacent personal laboratory.

Third Storey: The eastern room of the northern wing is used as it is, as another lecture room preceded by a preparatory room and a room for the keeping substances. (Rooms 301-303). The western wing (Room 314), the eastern wing (Room 320), the eastern part of the northern wing (Room 307) and the eastern part of the southern wing (Room 334-336) are used as exhibition rooms where the display means are the actual workbenches and where also experiments can take place. The western rooms of the southern wing (Rooms 328-331) are furnished with display cases existing in the building. The central wing is unified to allow for a spacious reading room to be created.

6.3.1 Access and Circulation

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Access is possible through the main entrance on Solonos Street and the secondary entrance on Mavromihali Street. Horizontal circulation is possible through the existing corridors as in the actual layout of the plans. An elevator, situated in the central part of the northern wing, facilitates the vertical circulation complementary as to the two staircases.

6.3.2 Main Staircase

To recuperate the initial elegance of the self-bearing staircase the removal of the inclined beams would be necessary. This is proposed with a certain reservation, for it was not possible at the end to ensure that such removal would be acceptable from a structural-stability point of view. Yet it should be seriously considered.

6.3.3 Exhibition Rooms

Three different ways of exhibiting are being suggested on the basis of the display

means used.

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- In the long rooms where workbenches are maintained, the exhibits are placed on them, allowing at times also for experiments to take place.
- In the rest of the rooms, the objects are placed in display cases, in drawers or on tables – all display cases, drawers and tables that can be found today in the building.
- Additional display material such as modern exhibition panels, touch screens and information kiosks are also proposed that be used.

6.3.4 Lecture Rooms

In the current state of the building three lecture rooms are available, one in each storey –given that the main lecture room in the central wing occupies two stories. All three of them are maintained so that theoretical teaching can take place in any of the stories.









The lecture room in the western part of the southern wing (Room 054) is maintained as it is. The missing or broken wooden parts of the seats are replaced and so is the long table in front of the seats. The cement tiles are preserved and restored where missing. The plaster of the walls is removed, reapplied and painted.

The Main Lecture Room is considered that will also serve for conferences and official Lectures of the University –by important guest professors or in special occasions. As it has been already mentioned, the main lecture room was meant to bring several decorative elements –as the respective section drawing suggests (Fig...). Yet it is not known whether it was actually decorated or not. We suppose that it was not, but even if it was for the first twenty years of its life –and then it was in another position anyway (Ground

and First Storey)- it was not for the rest 80 years. Therefore the initial consideration in the course of the project to restitute a more elaborate character for the main amphitheatre was later on abandoned. Also -and mainly- because such an approach would result in a rather striking and odd impression compared to the very sober character of the rest of the building.

Yet certain ameliorations are proposed:

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The concrete steps are covered with wooden planks to allow for a cleaner and more attractive final surface. The initial height of the room is restituted through the removal of the intermediate ceiling. In this way the concrete beams will be visible again. The wooden frames that surround the windows in the interior –used as guides for the shaders– are removed so that the original dimension of the windows is restituted. Another shading system is proposed. The lamps with adjustable hanging chains so that their height can change, are being repaired and reused. For the rest, the missing or broken wooden parts of the seats are repaired.

Room 301 in the third storey is also used for theoretical teaching. Remains as it is with the cast iron and wooden seats and the teaching table.

6.3.5 Library - Reading Rooms

The Museum of Natural Sciences and Technology owns about 20000 books. Some of them are kept in bookcases in the listed in situ rooms of the eastern part of the western wing of the first storey (rooms 138, 139) the rest are at the moment spread in several rooms of the building. The project suggests that the Museum disposes of a proper library that will be continuously updated and enriched with editions related with natural sciences and technology. Thus it is proposed that specific rooms are reserved for the needs of this library.

Rooms 138 and 139 are preserved as they currently are for books to be kept and read. Additionally to them, the rooms of the western part of the northern wing in the ground storey are considered the most adequate ones for the books to be kept, for they are quite dark and are placed in the lowest level of the building –therefore can bear extra weight. As for the rooms that would be most suitable as reading rooms two options were considered:

The central wing of the ground storey would make an adequate reading room because of its vicinity with the proposed keep–books rooms and its adjacency to the courtyard – the readers would have the possibility to "extend" to the court if they would wish.

The central wing of the third storey on the other hand, being the most quiet and the best naturally lighted one is considered as another alternative.

6.3.6 Courtyards

The project suggests the revalorization of the two atriums -so typical for neoclassical architecture and so important for the particular building type- through a better ar-

rangement of the pipes, a thorough cleaning of the facades and removal of the plants. In the western courtyard the two small buildings are being demolished. It is proposed that the courts be covered with glass roofs -to allow natural lighting and ventilation- so that they can be used as reception or recreation spaces. Two different alternatives were examined different as to the proposed height where the glass roof would be placed:





- The first option proposes that the glass roof is set on the top of the atriums. A staircase could then vertically connect all the four stories inside the atrium.
- 2. The second option emphasizes on the restitution of the initial proportions of the courtyards and therefore suggests that the glass roof is positioned in the middle of their height. That is on the limits of the ceiling of the First Storey indicating what the initial height used to be. At the end, this second option was selected and implemented as more respectful to the original appearance of the atriums.

The atriums will appear with a modern "touch" as far as the materials are concerned.



6.4 Facades

The correct coloring and reapplication of plaster on the facade should be of high priority. Not much detail is given here. However the example of the restitution of the facades of the German Archaeological Institute –another work by Ziller- is considered an exceptional example and a similar approach is suggested in this case. "All facade wall surfaces were smoothed with the trowel, pressed over and over again until a perfectly even surface was achieved. External surfaces were colored by spraying in two to three very fine layers, thus avoiding brush marks and reducing the risk of peeling^{r40} The whole facade appears in the same ochre color for all walls and decorative elements,

⁴⁰ C.P. Mylonas, Architect "Restoration of the Facades of the German Archaeological Institute" (Art + Design 20/1989

therefore only very light variations -of the same ochre color- between pilasters, cornices and walls should be allowed.

6.4.1 The Garden and the Fence

Removal of the overgrown vegetation and restitution of the seating benches aims to the revalorization of the parterres and their transformation into a more attractive reception space.

6.5 Building Materials

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The general concept of the proposed repairs is that as much as possible of the original building material is kept. This rule is not applied in certain cases to avoid the danger of a patchwork like results.

All the "granito" type floors are being replaced by new ones of the same type. To achieve an improved final appearance these are surrounded and subdivided by pieces of marble stripes.

6.7 Urban Setting - The context

6.7.1 Accessibility issues

Situated in the very center of Athens, the access to the building is facilitated by the presence of all types of public transport in very short distance –bus terminals on Academias Street, bus stops on Ippokratous and Harilaou Trikoupi Streets, Metro station on Panepistimiou Street. More over than that, a multi–storey parking place is only two blocks away.

In order to facilitate the auxiliary entrance from Mavromihali Street, it is proposed that the part corresponding to the Chimio –which has very law traffic anyway–, be pedestrian. Disturbing elements such as rubbish bins, signs, stands defining parking space for the motorbikes are to be removed; So that in completion with the proposed arrangement in the garden, an enhanced perception of the building can be achieved from at least one corner.

6.7.2 Revalorization of the Cultural Setting

The Old Chimio constitutes one of the three Landmarks on Solonos Street; the other two are the Cultural Center of the Municipality of Athens and the School of Law –that is all three of them related in a way or the other with educational purposes. Set in a context where cultural and youth activities have always been the most predominant ones, the revitalization of the monument, would certainly contribute to the revival and the upgrade of its immediate surroundings. It would also ensure the continuation of the "intellectual atmosphere" on this part of Solonos street where perhaps the densest concentration in bookshops and publishing houses can still be found.

7. CONCLUSIONS

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This study has certainly not been exhaustive; certain issues have not been examined in depth, either for lack of time or for lack of the appropriate means or even for lack of experience. Yet what has been attempted is a circular route meant to comprise all necessary steps for the thorough understanding of the building.

- 1. Collection of the necessary material (through survey and archival sources)
- 2. Analysis of the assembled material (historical, architectural, technical, urban)
- 3. Synthesis, evaluation, conclusions

What the thesis primarily aimed to prove is that the Old Chimio constitutes an important historical monument, testimony also of the evolution of the Natural Sciences in Greece. Then to stress the urgent necessity to safeguard this monument and prevent further deterioration that could eventually lead to complete destruction. Such a possibility would be extremely harmful not only for the loss of an important Ziller's work but also for the context of the building, for the Old Chimio with its small garden represents a pleasant "exception" in the raw of the 5-6 storeys cement blocks on Solonos Street.

To ensure the safeguard of the monument, a new use has to be assigned to it. The most this new use will respect the personality of the building, its layout and its equipment, the better it will be. In this direction, the conservation project evolved, referring to the main principals and describing the general guidelines as to the reuse of the building. Because of the size of the building, the choice was made to deal with general aspects and handle the edifice as a whole instead of a more detailed approach that would concentrate in specific areas. Therefore technical aspects of the conservation project have not been studied in depth, which is considered a drawback and should by all means be dealt with in a next stage.

As far as heritage is concerned, it has been a common practice in Greece –perhaps also in other countries- to destroy first or let be destroyed by non maintenance and exposure to continuous deterioration and then, when it is already too late, regret the loss and search for responsibilities. Hopefully the Old Chimio will have a better chance and survive for the sake of future generations to have the opportunity to wonder around its fascinating rooms.

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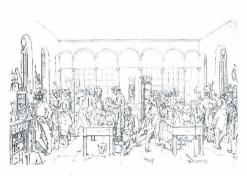
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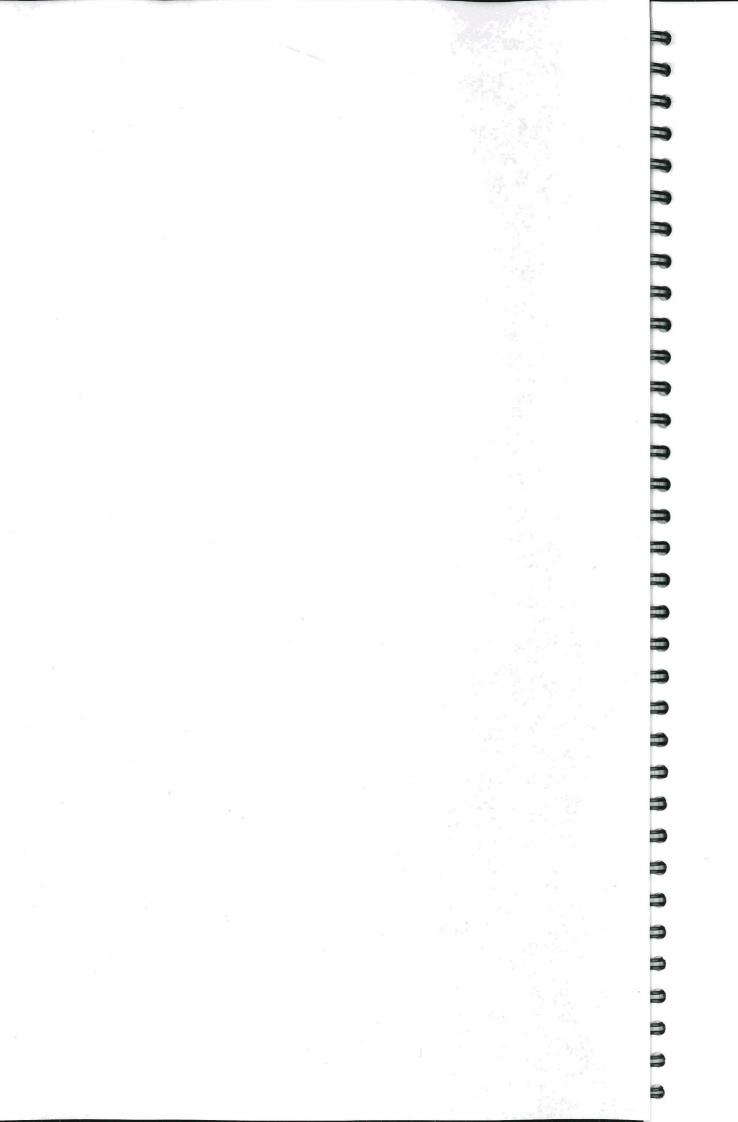
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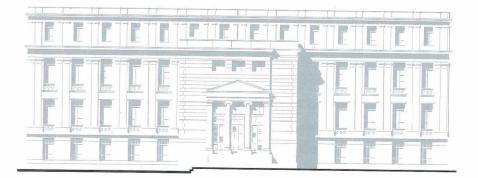
The Chimio Building on Solonos Street, Athens: **Documentation and Reuse**

Promoters:

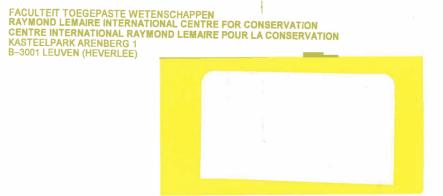
Maro Kardamitsi-Adami

Barbara van der Wee

Thesis to obtain the degree of Master of Conservation of Historic Towns and Buildings Presented by Stamatina Mikrou



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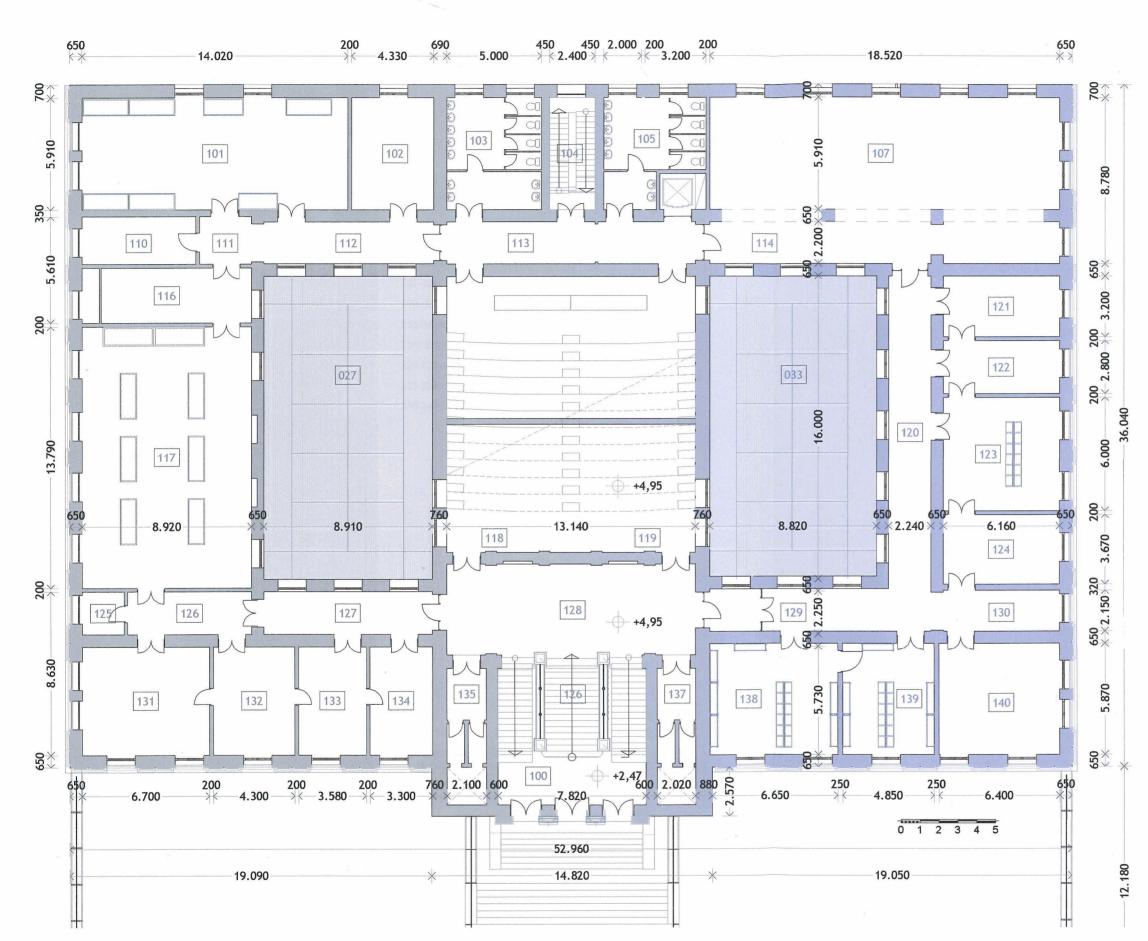
PLANS

LEUVEN, JUNE/SEPTEMBER 2003



001-004: Book Keeping 008-010: Turnery 017: Exhibition Room 027: Temporary Exhibitions 028: Multimedia Room 029-030: Cafe 035-037: Exhibition Rooms 045-050:Installations of Old Radio Station 054-055: Lecture Room 056: Administration-Guard

RLICC: MASTER'S THESIS: The Old Chimio in Athens. Documentation & Reuse DrawingTitle: GROUND FLOOR PLAN		
Stage: PREL	iminary Study	Drawing Number: $\Delta - 0$
Scale: 1:200	Date: SEPTEMBER 2003	AUI
Project Proposal: MUSEUM OF NATURAL SCIENCES AND TECHNOLOGY		
Promoters: Maro Kardamitsi Adami, architect Barbara Van Der Wee, architect		
Student: TINA	MIKROU, ARCHITECT	



T L

101-102: Exhibition Rooms 107: Exhibition Room / History of the Building 116-117: Exhibition Rooms 118-119: Bookshop 121-124: Exhibition Rooms / Ziller's Work 131-134: Administration 138-139: Library 140: Exhibition / Professor's Rooms

RLICC: MASTER'S THESIS: The Old Chimio in Athens. Documentation & Reuse		
DrawingT FIRST	itle: Γ Storey Plan	
Stage: PREL	IMINARY STUDY	Drawing Number: $\Delta - 02$
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	rs: D Kardamitsi Adami, archi Dara Van Der Wee, archit	
Student: TINA	MIKROU, ARCHITECT	

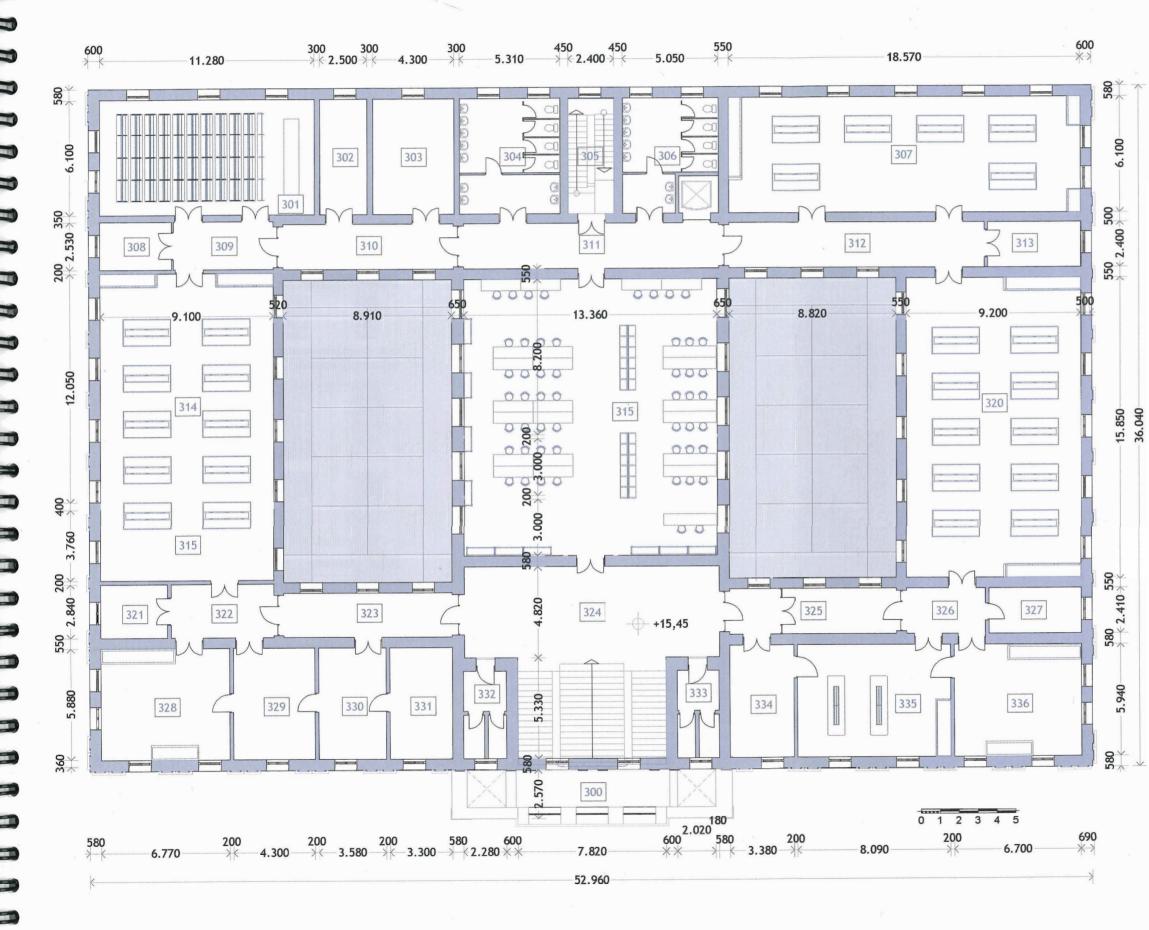


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201-203a: Exhibition Rooms 207-209: Exhibition Rooms 210: Exhibition Rooms /Existing Work Benches 215: Main Lecture Room 216: Exhibition Rooms 223-226: Exhibition Rooms - Stock 233-236: Professor's Office & Personal Laboratory 240-242: Exhibition Rooms

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Project Proposal: MUSEUM OF NATURAL SCIENCES AND TECHNOLOGY		
Promoters: Maro Kardamitsi Adami, architect Barbara Van Der Wee, architect		
Student: TINA	Mikrou, architect	Barry and an and a second s



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301: Lecture Room 303: Exhibition Room - Stock 307: ExhibitionRooms /Existing Work Benches 314: ExhibitionRooms /Existing Work Benches 320: ExhibitionRooms /Existing Work Benches 328-331: Exhibition Rooms 334-336: ExhibitionRooms /Existing Work Benches

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	rs:) Kardamitsi A ara Van Der 1		
Student: TINA	Mikrou, arch	ITECT	

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Promoters: Maro Kardamitsi Adami, architect Barbara Van Der Wee, architect		
Student: TINA	Mikrou, architect	

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ident: Tina Mikrou, architect

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 PRELIMINARY STUDY
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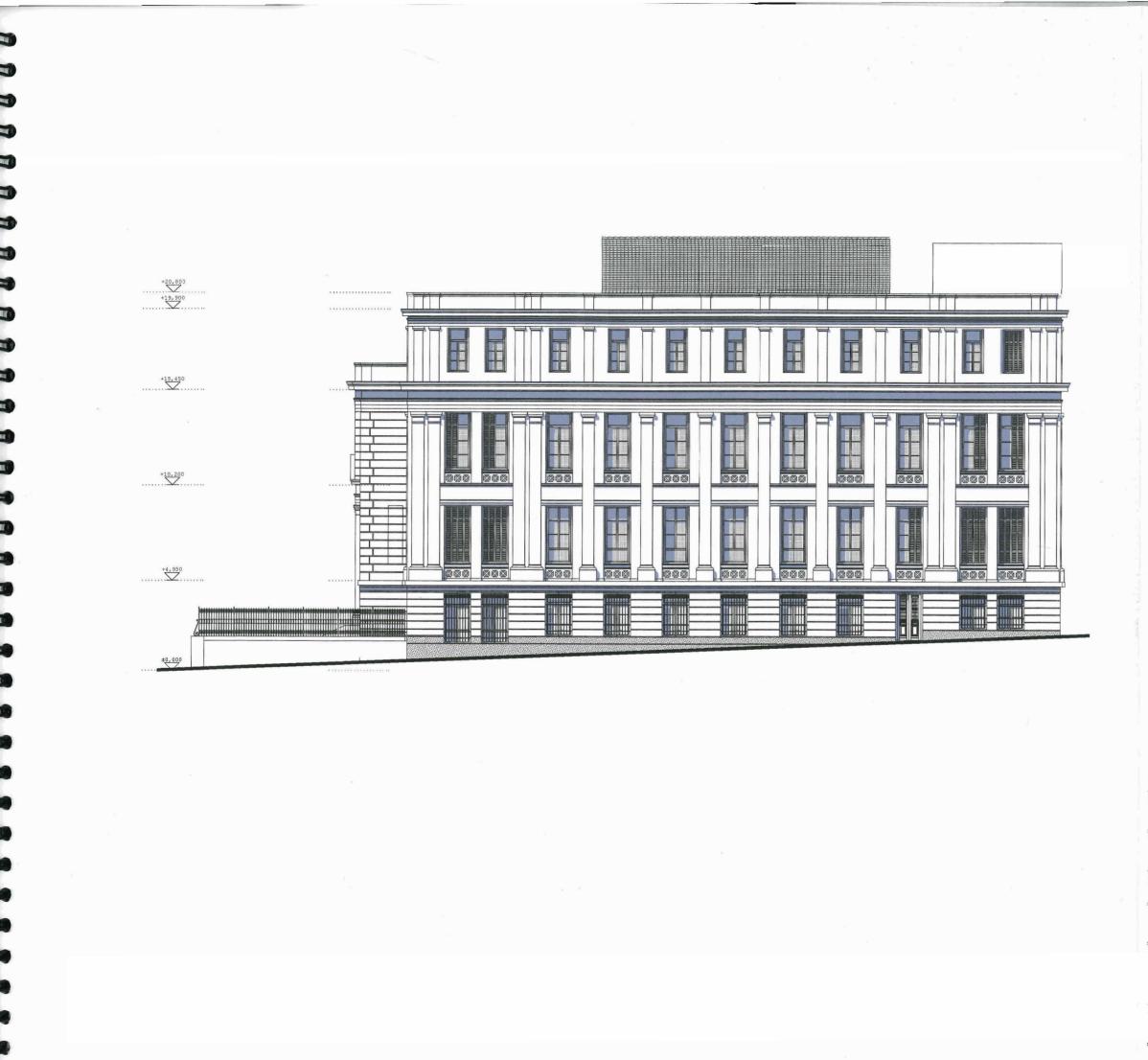
 Project Proposal:
 MUSEUM OF NATURAL SCIENCES AND TECHNOLOGY

 Promoters:
 MARO KARDAMITSI ADAMI, ARCHITECT

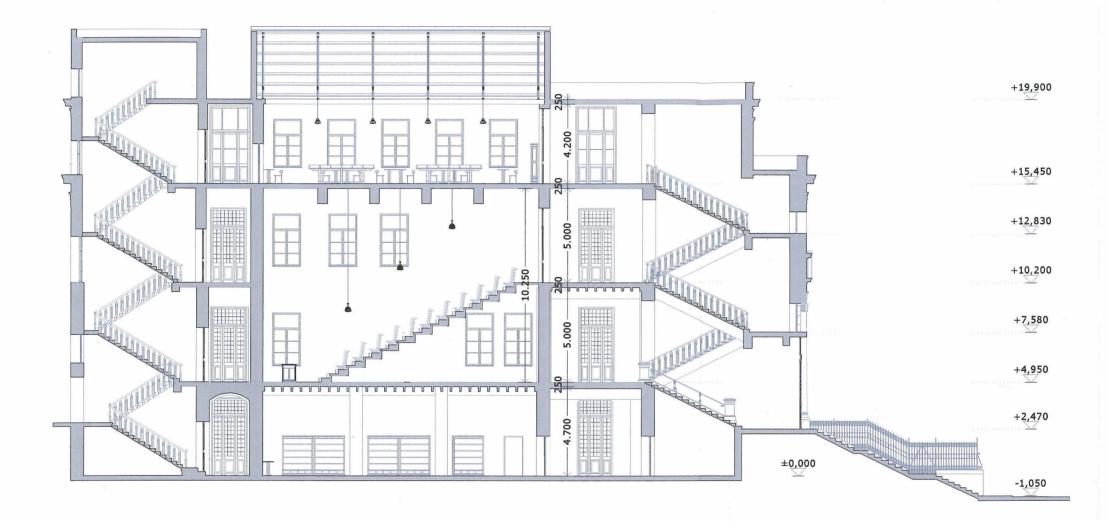
 BARBARA VAN DER WEE, ARCHITECT
 Student:

DrawingTitle: WESTERN ELEVATION

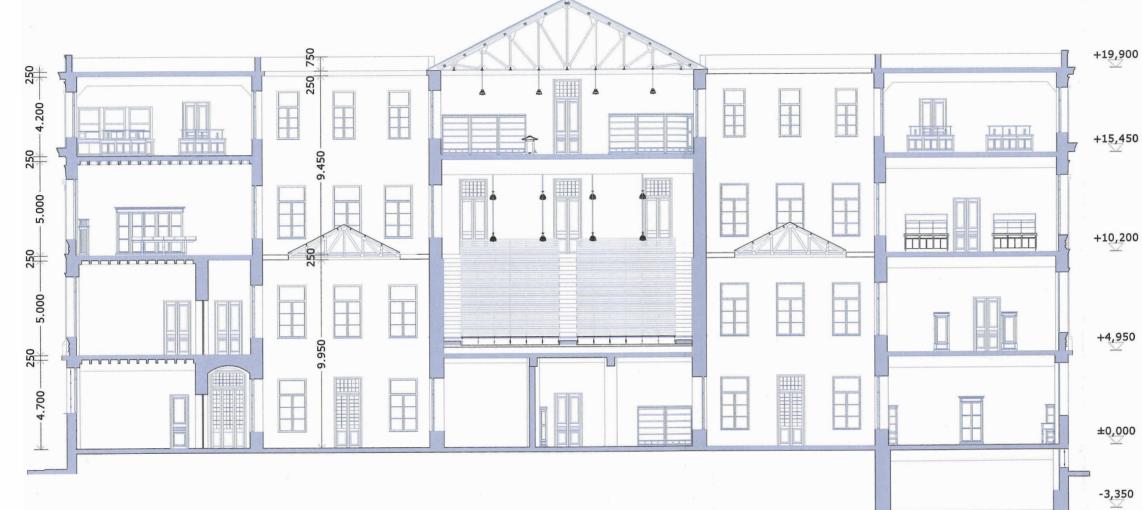
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RLICC: MASTER'S THESIS: The Old Chimio in Athens. Docum entation & Reuse			
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Project Proposal: MUSEUM OF NATURAL SCIENCES AND TECHNOLOGY			
Promoters:			
Maro Kardamitsi Adami, architect			
BARBARA VAN DER WEE, ARCHITECT			
Student: TINA	Mikrou, architect		



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