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ALTE VITRIE

L'ARTE DEL VETRO E DINTORNI

Alembic in coloured glass

The precious glassware of the "alchemist"

at the National Museum for the History of Sanitary Art in Rome

Gaspare Baggieri

At the National Museum for the History of Sanitary Art, in the Santo Spirito Hospital Complex in Rome, there are glass objects referenced to the alchemist's laboratory part of the three collections located in the Capparoni and Carbonelli rooms, as well as in the laboratory itself. The origin of the exhibits is somewhat uncertain, as they were purchases made predominantly on the antiques market both by Pietro Capparoni and Giuseppe Carbonelli between the late 19th and early 20th centuries. It can be supposed that many of the objects in the Carbonelli room come from northern Italy, Piedmont, or the Lombardy-Venetia region (Prof. Carbonelli, originally from Turin, donated his vast collection to the Rome City Council in 1921), while Prof. Capparoni's contribution may originate from Tuscany, as he had family links there and spent many years

of his life in both Pisa and Lucca. The precise age of these artifacts is also unclear, though we can surmise that all the glass objects date back to at least the first half of the 19th century. For a better comprehension, it is helpful refer to the painting, "La bottega dell'alchimista" by Teodoro Filippo di Liagnio, better known as Filippo Napoletano (1589- 1629), preserved at Palazzo Pitti in Florence. A painting of faithful descriptive impact, it benefits from the painter's skill and ability to capture and depict all those characteristic details required of alchemical aparatus. Thus, he paints with crystalline abundance, highlighting his compositional elements, i.e. the glassware, against a dark oil-painted background. One can distinguish alembics, flasks and bottles, among other things. The period in which Laignio delivered the painting to Cosimo II de Medici coincides with the drafting of the famous treaty on the "Art of Glassmaking" by Antonio Neri (1612). In it are described all the various kinds of glassware present in an alchemist's laboratory.

Retort or Cucurbit

There are four of these objects which present variations of the aforementioned alembic, a spherical globe out of which a cylindrical tube protudes from the neck at an acute angle. It can be found in transparent coloured glass and fire clay, often in sandblasted glass to better tollerate higher temperatures. Size generally varies from a minimum of 30 cm to a maximum of 80 cm. Retorts in yellow, rust-coloured, green or colourless sandblasted glass were directly laid on the oven, or upon connectors. The spouts at the ends are "Wedgewood", and allow the insertion and interlocking of a tube linked to another device, a glass muffle to aid condensation, or directly to the flask. Often the spherical body features a second shorter spout to allow passage or to combine different distillates.

Alembic

Bottle

Florentine Bottle

It is a single specimen, a single body comprising a round squat body and a cylinrical tube in colourless and transparent white blown glass. Its size is approximately 12 cm (diameter of the bulb,with an internal surface indentation), and 40 cm from the base to the top of the tube, which in turn has a diameter of approximately 2 cm. Three quarters of the way up the bulb, a cylindrical swan-neck tube is cast onto it, about 20 cm long and with a diameter of 1 cm. It was used as a vessel for pouring essences, or for oils that required resting time. The surface liquid flows when poured from the slender tube, and is thus purified. A similar bottle can be found

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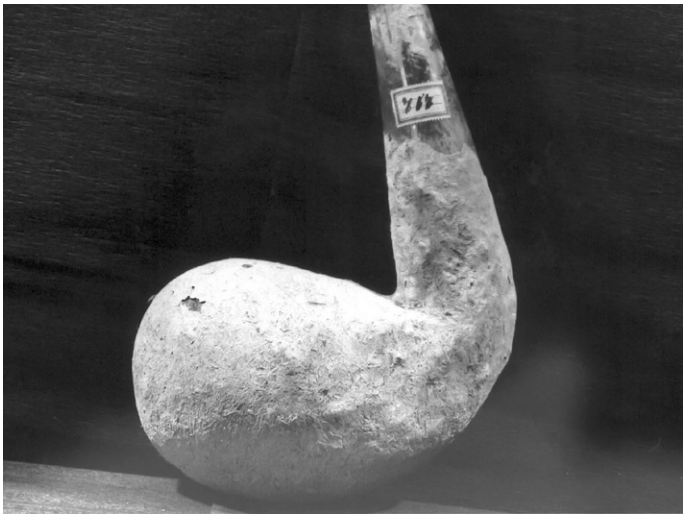

Sandblasted retort

at the Museum of the Pharmaceutical Perfume Workshop at Santa Maria Novella in Florence (XVII cen.), or in the spiceries at the Camaldoli Monastery.

Flask

It is perhaps the most simply produced vessel, as the blowing of the glass with the blowpipe is restricted to merely increasing the volume of the molten glass ball, which may reach several dozen centimetres. There are six specimens. Generally in colourless transparent glass, sometimes the colour of the glass is green and often the large bulb is packed with straw to protect it from any impact. The standard flask may give rise to numerous vessels which in an alchemist's laboratory are perhaps the most numerous and have a double purpose. A container of liquids ready to use and to be administered, another to complement the distillate aparatus, where it represents both the first stage of gathering for distillation, and the last step, which is condensation. Of interest is a painting from the first half of the 18th century by Folco Rinuccini, held at the Crusca Academy, in which the process of distillation with flasks is cleary depicted. Large flasks with liquids to be administered, on average between 40 and 70 cm tall, generally contained distillate (from wine or vinegar), or water from herbs or juices (chicory, roses, cucurbits, etc.), but also syrups and oil, as well as other considerably diluted extracts. With capacities ranging from 3 to 6 litres of liquid, they were generally positioned on the bottom shelf and just behind the sales counter or work bench, which is clearly represented in a fresco by Issogne (Valle d'Aosta) from the XV-XVI century. Here, the flasks are wrapped in a protective mesh. The outwardly turned rim of the flask's short spout, from 4 to 10 cm in diameter, allows it to be sealed with cork, hemp, linen or rope in order that it is airtight but still easily opened in order to pour the liquid into smaller vessels.

The **smaller flask** on the other hand, less than 40 cm tall, generally features a rather long cylindrical tube of diameters ranging from 2 to 4 cm. It is another vessel that takes on the sole purpose of a bottle, allowing the content to be verified thanks to its transparency. The smaller flask in sandblasted glass is used as part of the still aparatus. There are 6 of these objects held at the museum.

Retort or cucurbit

Alembic

Though no better than Folco Rinuccini's painting, the form and the functionality of the glass alembic can be greatly appreciated, and there are 4 on display in the museum. In blown glass, either coloured or colourless but transparent so as to be able to see the progress of the distilled substance, which from the flask or jug placed

- *G. Conci, Pagine di Storia della Farmacia, Ed. Vittoria, Milano 1934.*
- *A. Benedicenti, Medici, malati e farmacisti, Hoepli, Milano 1947.*
- *G. Donzelli, Teatro farmaceutico, dogmatico e spagirico, Venezia 1675.*
- *M. Fumagalli, Dizionario di alchimia e di chimica farmaceutica antiquaria, Edizioni Mediterranee, Roma 2000.*
- *A. Neri, L'arte Vetraria distinta in sette libri, Stamperia de Giunti, Firenze 1612.*

on the source of heat crosses the alembic, itself perfectly attached to the mouth of the jug. The alembic, with a long lateral spout, was linked to another jug and allowed the condensed distillate to drop down. Obviously, this is a simplfied description, as other apparatus, such as the glass cucurbit, was used to aid this procedure.

Matrass or Bottle

There are six of these in the museum, either in colourless or transparent yellow glass with a spherical and oval shaped body. The characteristic of these bottles is in their shape, which is a cylindrical tube of reasonable length (20 – 25cm) meeting a spherical body, or with a tube which protrudes from an oval body, where

Florentine bottle

Glass composition for distillation and furnace

subsequent precipitates were sedimented. Colouring varies, and can range from light blue to yellow, green or a rusty red colour, as well as the transparency of colourless glass. Its function is to collect liquid with the help of a funnel, but it can also act as a complement to the alembic. The mouth is generally sealed with a cork stopper. In blown glass, it would not appear to have been difficult to make, as it was freely blown using a blowpipe. It would simply have been a question of expanding the ball of molten glass, taking into account the ratio of the tube in relation to the sphere and its thickness.

Thanks to MelAMi, European Cultural Art Science and Culture Association of Rome for having collaborated and made available some of the reference material.

Glass Pill containers

at the National Museum for the History of Sanitary Art in Rome

Gaspare Baggieri

The five glass pill containers present in the Capparoni Room at the Museum for the History of Sanitary Art (Santo Spirito Hospital, Rome) are complements of the glassware collection, which chemist's once displayed on their counters in the entrance to their shops. They are not to be confused with those vessels used as instruments in the production of pills, composed of a mixer and a cutter for spheres which appeared at the beginning of the 18th century. In this case, dried medicinal herbs were mixed with auxiliary agents, such as honey or sugar. The resulting mixture was inserted into the pill containers and came out in cylindrical rods which were in turn broken into numerous little sections, each one rubbed between index finger and thumb so that they would assume a spherical form.

Glass Pill container

Glass Pill container - detail of the workmanship of the foot

Finally, those pills that remained soft where laid out on a surface covered with flour or lycopodium powder so that they would not stick. The pill containers preserved in the museum, made of blown glass, may date back to a period preceding the first half of the 19th century and they were probably made by a craftsman from the Veneto area. Of the five lightweight thin glass pill containers, four are similar in terms of size and shape. Unlike a glass albarello, they do not boast sinusoidal forms, rather they are characterised by chalice-like shape starting from a foot with a circular base, where the glassware is then completed with an ornamental crest and an overturned rim. This interesting item, with its dome-shaped lid and a pinnacle which serves as a handle with which to open the container, gives the piece a particularly elegant and sophisticated appearance.

The fifth container, on the other hand, is comparable to a dagevoir, a classical sweet jar, and is heavier than the others. Just a little under 30 cm high, it features a classic raised foot from which a bowl form develops, around 20 cm in diameter and 15 cm high. Its surface presents some pleating and double-curved handles (for one of which, unfortunately, only a small graft remains), and it has a bell-shaped lid, which is also decorated with pleats. At the top, it has a solid glass knob. The piece is representative of a style defined as "Empire", of French influence, which could indicate that it was manufactured in Venice.

Ever since their first appearance, these characteristic pill containers have been used to hold tablets, candies, pills or sweets (which may have been purgative, containing eucalyptus, liquorice, barley, coffee etc). They were also used for chopped or flaked medicinal herbs or spices such as cinnamon, mallow, nutmeg, camomile and a wide variety of seeds. They would also contain powders such as cinchona, saffron, plant-based flours etc.

Sweet jar

Glass Pill container

They were the preserve of chemist's shops, spiceries and grocery stores during the second half of the 18th century. Made from blown glass but also with moulds, their graceful appearance and transparecy meant that we could also find them at the beginning of the 20th century on display in ice cream parlours and cake shops, alongside porcelain vases decorated with biscuit relief which was common of the period. The fashion then extended to wealthy households, where pill containers (containing biscuits, chocolates, candies, wafers, conserves, almonds, hazelnuts or candied fruit) would be proudly displayed in sitting rooms alongside liqueurs, teas, cold drinks and coffee.

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Study Day Proceedings

Glass for Scientific Use. Preservation and Promotion of a Little-Known Heritage

Altare, June 2019

In July 2020, the Study Day Proceedings for "Glass for Scientific Use. Preservation and Promotion of a Little-Known Heritage" were published. The Study Day was held on June 22nd 2019 in at the M.A.V (Museo dell'Arte Vetraria - Museum of the Art of Glassmaking) in Altare. The event was sponsored by ICOM Italia, ANMS (Associazione Nazionale Musei Scientifici – National Association of Scientific Museums) and Film Museum Ferrania. The publication, edited by Luigi Campanella and Andrea Macchi, brings together the contributions of the various guest speakers who attended the conference, highlighting the multiple levels of significance offered by an initiative foreseeing the reordering and systematic presentation to the public of glass for scientific use, inherited by the Altare museum from S.A.V. - Società Artistico Vetraria, a glassware producer which operated in the Ligurian town up until 1978.

The project constitutes a fundamental element of I.S.V.A.V's mission (Istituto per lo studio del vetro e dell'arte vetraria, Institution for the Study of Glass and the Art of Glassmaking), an organisation founded in 1982 in order to guarantee the preservation and promotion of the glassware produced by S.A.V. from 1856 onwards. Preserving a little-known heritage, such as that represented by scientific production, allows us to protect an industrial legacy and raise awareness of it. One must consider that, most of the time, scientific and pharmaceutical aparatus was not subject to inventory restrictions and, due to the manner of its use, was often destined to be lost. During the study day, the significance of M.A.V.'s collection of laboratory and pharmacy glassware stimulated a series of considerations on the need to involve a range of disciplines including not only the scientific sector, but also historical, catalographical and museological fields in order to trace links of continuity within the Altare museum.

The conference therefore represented the conclusion of a complex project, undertaken thanks to the contribution provided by the San Paolo Company within the context of 2017 edition of the "Places of Culture" tender. The event also benefited from the collaboration of MiBACT, the Polo Museale della Liguria (Museum Hub of Liguria), A.I.H.V. and I.S.V.A.V., which promoted an organic study of such objects leading to the publication of a specific catalogue.

The research, carried out also thanks to the support of Prof. Paolo Ferloni from the Department of Chemistry at the University of Pavia, involved a careful revision of all scientific aspects, highlighting the function of a lot of aparatus and bringing to light their technical characteristics and how they worked. In all, around 700 objects were presented, preserved in the museum's exhibition rooms and in its store rooms. They were all catalogued in a process which also benefited from archive sources, including catalogues compiled by the glassworks itself for its own customers. As well as the research, these studies enabled the preparation of two of the museum's rooms with the specific aim of presenting the purpose of these objects and aparatus in line with current guidelines regarding exhibition and preservation.

Starting from this milestone, it was crucial that during the study day we also considered the role of museums through the example and experience of the University of Siena, following the recovery of scientific material which can today be used by scholars and those interested in the subject thanks to the birth of the SIMUS Service Centre, responsible for all actions regarding the recovery, safeguarding, cataloguing, preservation and promotion of such heritage. In 2017, thanks to this activity, an exhibition space was inaugurated in Siena's historical centre: the Museum of Medical Instrumentation.

Attention to preservation, enhancement and promotion also demonstrates the need, as highlighted in the various presentations during the event, to strengthen didactic activities within the museums in order to design and test new and fundamental synergies with regard to learning, not just about art and culture but also science and chemistry. This constructive exchange between school and museum lays the foundations for the education of new generations, in terms of looking at the past with a view to future growth, not only on an individual level but also with reference to the community as a whole. Focus on the local community thus becomes another crucial element of the museum's mission. Today, the role of the museum as a public institution, capable of observing and being part of a community, is becoming increasingly important. In the case of the Altare Museum, the exhibits are owned by I.S.V.A.V., while the liberty building in which it is housed is owned by the state. The people of Altare represent the community. The museum therefore belongs to the community not only due to its role and function, but also because it preserves material objects which in the course of history have been made, used and accumulated by this very community: they constitute a memory that allows the town and its inhabitants to perpetuate themselves over time. The M.A.V. in Altare therefore distinguishes itself through an unequivocal characteristic of its identity: it is a museum that has developed from the bottom up, expressed and moulded by a community rather than being the fruit of institutional planning dictated from above, and that makes it an exemplary component of the territory in which it stands.

Villa Rosa - site of the Altare museum

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In copertina:
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