THE PRODUCTION AND COLLECTING OF PLASTER AND SULPHER PASTE "IMPRONTE" AS GRAND TOUR SOUVENIRS IN THE 18TH AND 19TH CENTURIES

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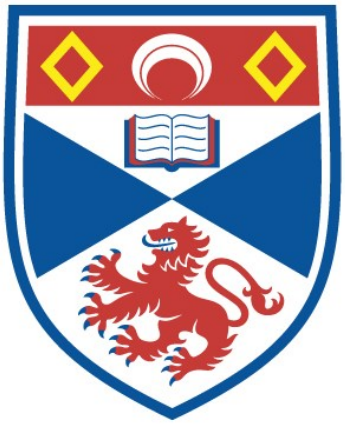

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THE PRODUCTION AND COLLECTING OF PLASTER AND SULPHER PASTE *IMPRONTE* AS GRAND TOUR SOUVENIRS IN THE 18TH AND 19TH CENTURIES

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M.Phil. in Art History
September 30, 1997

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Lettor, se truovi cosa che t'offenda in questo modestissimo librino non te maraviglar. Perche Divino, et non humano, e quel ch'e senza Menda.

Anon, Italian 17th century book.

ABSTRACT
This thesis stems directly from questions raised about *impronte* during an assignment for the taught component of the Museums and Gallery Studies course during the academic year 1995/6. Whilst investigating the origins and nature of *impronte*, it became increasingly obvious that as objects in and of themselves, very little comprehensive work had been done to address questions of where, how, and why these objects came to be made. Initial inquiries to various museums and individuals demonstrated that these were not particularly rare items, they were abundant, and commonplace but little understood as objects of art. Typically, *impronte* are considered to be representations of gemstones, this work is intended to demonstrate that there is a broader dimension to the subjects depicted by *impronte*.

Chapter one contains a brief overview of the historical context of gem collecting and the traditional processes of working on hardstones. The 18th century revival of interest in classical knowledge was directly responsible for the resurgence in the interest in amassing collections of ancient gemstones; as well as the collection of modern gemstones carved in the manner of the ancients. This revival, while stimulating renewed interest in gemstones, was so lucrative that it also encouraged numerous forgeries to be made. The quantity and quality of forgeries was to ultimately undermine confidence in the authenticity of gemstones and result in a collapse of the popular market for the collecting of gemstones, and by extension, *impronte*.

Chapter two is an examination of the practical issues relating to the materials, manufacture, and conservation of *impronte*. The materials commonly encountered are sulpher and plaster, on rare occasion, glass paste. A large portion of the chapter is devoted to the different aspects of manufacturing *impronte*. Other sections are concerned with the problems relating to the conservation, storage and cleaning of *impronte* in the museum environment.

Chapter three is an overview of the biographical details and commercial activities of the known makers of *impronte* represented in private and public collections in the UK and elsewhere.

Chapter four is a discussion of the variety of themes and subjects portrayed on *impronte*. There is a wide diversity of subject material contained in sets of *impronte*, and not all are strictly pertinent to the traditional subjects treated by gemstones. Large numbers of *impronte* are intended to be visual study aids, and souvenirs, of great works of art, both ancient and modern held in various famous collections popular with 'Grand tourists'. In many instances *impronte* are more similar to an 18th and 19th century version of a postcard, or slide package, purchased by modern museum visitors and art lovers.

The four appendices contain information about the collection of *impronte* at the Ashmolean Museum, Oxford; details from 19th century guidebooks to the artisans of Rome, written by Heinrich Keller; a catalogue of the collection of Paoletti *impronte* at the University of St Andrews; and sample details of the conservation survey of the Ashmolean collection.

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CHAPTER ONE:

The Historical Context of Gem Collecting

Chapter 1
INTRODUCTION:

The 'Grand Tour' of the 18th century has been, and continues to be a subject of considerable interest. The quintessential image of the 'tour' is that of an extended continental sojourn by young aristocrats between the years 1710 and 1793, when due to a variety of complex economic, social and political factors the British aristocracy, gentry and to a lessor extent, the recently evolved 'middle class' found themselves with the financial means, and requisite curiosity, to venture abroad. As a seafaring and mercantile nation the British took to travel with an unprecedented and unparalleled zeal during this period.[1]

However, the tour was not the spontaneous invention of the 18th century, it grew from the activities of various travellers, statesmen and scholars who had been going to the continent, for extended periods, for educational purposes from as early as the mid 16th century; but the concept of the purely educational, classically focused tour did not crystallize until the publication of the French translation of *Voyage or a Compleat Journey through Italy* (1670) by Richard Lassels, who was the first recorded individual to use the term 'Grand Tour'.[2] The tour was not, and did not always remain high minded in its intentions; the purpose and value of the tour was subject to the desires and disposition of the individual undertaking the voyage – factors no different from today. But there are recognized points where some transition of purpose occurred. Prior to the first half of the 18th century the tour was "dominated by the classical Grand Tour – young men travelling with tutors for several years in order to finish their education. In the second half...there were larger numbers of other tourists...who tended to make shorter visits...who did not stress education as a prime motive for travel. Instead enjoyment and amusement came increasingly to the fore."[3] Into the 19th century the 'Tour' declined in purpose, and although it continued to be undertaken, it was a pale vestige of its former grandeur and intent.

As much as the 'tour' was about education it also became about collecting and

1 Black, Jeremy, *The British and the Grand Tour* (Crom Helm, London 1985) p. ii
2 Wilton, Andrew and Bignamini, Ilaria, *Grand Tour: The Lure of Italy in the Eighteenth Century* (Tate Gallery Publishing, London 1996) p.13
3 Black, *The British*...p.244

enhancing the prestige of the tourists, and by extension Britain itself, by acquiring for themselves and the nation the trappings of antiquity. In fact, the collecting of major antiquities has been described as an "obsessive ambition of all visitors to Italy".[4] The problem was that the most significant works of art and sculpture already resided in the Papal collections or other similar ecclesiastic or aristocratic private collections. This meant that in order to satisfy demand new objects had to be found, stimulating the haphazard beginnings of what later became more systematic archaeology.

Obviously, an original work of art can only be owned by one person, in one place, at any one time, and to satisfy demand for art copies have always been available, from ancient times to the modern era. The ancient Romans made copies in marble of bronze statues, and during the early to mid 18th century European collectors began to collect life – sized plaster copies of statuary as their whiteness was often preferred to the stained and battered originals, which often did not live up to the expectations of the typical connoisseur. So collections of casts evolved as supplements to collections of originals and made it easier for students and artists to gain firsthand exposure to the scale and effect of famous works without having to travel to see them.[5] This was no pauper's pursuit: Joshua Reynolds and William Hamilton corresponded in the 1770s over matters relating to the acquisition of casts and the importance ascribed to them.[6] This interest in casts continued for decades and it was Sir Francis Chanterey who established the cast collection still now in the Ashmolean Museum.[7] The Ashmolean's collections of *impronte* are in effect a more specialized offshoot of this other practice of collecting life – sized casts. Initially it was those with specialist interest in coins and gems who began making and collecting *impronte,* but they quickly became more than mere copies of true gems, as will be shown in this work.

Although Italy, by way of France and other countries, was a prime destination for

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4 Wilton, *Grand Tour*...p.11

5 Boardman, John, *Greek Sculpture: The Late Classical Period* (Thames and Hudson, London 1995)p.224

6 Hilles, Frederick W., *The Letters of Sir Joshua Reynolds* (Cambridge University Press, 1929) pp.26-8

7 Penny, Nicholas, *Chanterey, Westmacott and Casts After the Antique* (Journal of the History of Collections, vol.3 no.2 1991) p.255

'Grand Tourists', more specifically it was visiting Rome that was the true goal. Latterly Naples and Venice, but above all else the British desire was to immerse oneself in the atmosphere of Rome and be exposed to the lingering aura of the splendour of ancient times. Today Rome is a sprawling metropolis, but during the 18th and early 19th centuries its population never exceeded two hundred thousand and was entirely contained within the Aurelian walls, some 16 miles in circumference.[8] Even within such a relatively small area the British had a tendency to cluster around the Piazza di Spagna, sometimes referred to as 'the English Ghetto'[9] and it is here that Roman merchants also congregated the better to serve the needs of the tourists. One of the larger tourist industries was the trade in gemstones and *impronte,* almost universally made by the same lapidary artisans. Collecting became very faddish and as with all fads there are the trend setters and the followers. The collecting of ancient and modern gems was one of the most fashionable pursuits of the late 18th century, and Rome was the centre of this neoclassical revival.

ENGRAVED GEMS IN ANCIENT TIMES: FUNCTION AND MANUFACTURE

Perhaps it is as ornamentation that gems have always been the most esteemed and utilized. The Greeks and Romans were no different from us in that the possession of valuable, rare, or lavish jewelry was used as a subtle or ostentatious exhibition of the bearer's wealth, and status; this ageless attention to current trends of fashion within society compliment personal style, adornment of the person or the home reflects ones status in society. [10] From ancient times value has always been associated with gemstones, although the criteria for ascertaining value have changed over the ages; through their rarity, colour, size and durability gems have conveyed wealth and information about their possessors.

Due to the abundance of gems in nature and their unique properties it is unsurprising that they should occur amongst some of the earliest decorative

8 Broeder, Frederick den, *Rome in the Eighteenth Century* (The University of Connecticut,1973) p.13
9 Ibid p.12
10 Richter, Gisela M.A.,*Engraved Gems of the Greeks and Etruscans: A History of Greek Art in Miniature. Part I* (Phaidon, London 1968) pp.2-3

artifacts known to us. The specific practice of engraving distinct images on to small stones and cylinder seals is known to have occurred during the Sumerian period in Mesopotamia and as far back as the sixth millennium BC.

The most commonly occurring types of gemstones and cameos in western collections, and therefore the most often studied and imitated, are those produced by the Minoans, Greeks, Etruscans and Romans,[11] large collections of which were developed in the late medieval period. Gems survived because of their durability, commercial value and iconographic interest, while other types of materials, such as bone, ivory and softer minerals like steatite or alabaster, perished; many other materials, such as the precious metals gold and silver, were melted and reused.

In art the carving or engraving of gemstones is generally referred to as *glyptics*. This is derived from the Greek word glyphe, to carve. When channels or grooves are cut into gemstones they invariably occur in two forms, incised into the stone, whereupon this negative image is called *intaglio;* or the stone is carved in positive relief, and is referred to as *cameo*. [12] Aside from their differing forms, the two styles also vary in function. While decorative, *intaglio* are primarily functional as seal stones, providing a compact and durable means of distinguishing the bearer's identity or authority, and only secondarily as adornment; when pressed into wax or soft clay or any other soft material they leave a mirror image in relief. On the other hand, a cameo is intended to be seen exactly as it is carved in relief, having no function other than decoration.

The methodology, tools and techniques of the ancient and modern carvers were not complex and basically consisted of these main devices: the wheel, the drill, some form of belt drive and a diamond point.[13] Polishing tools such as files and whetstones played significant parts in the finishing stages, and in many cases, certainly up to the sixth century BC, much work and finishing was completed by

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11 Neverov, Oleg, *Antique Intaglios in the Hermitage* (Aurora Art publishers, Leningrad.1973) p.7
12 Untracht, Oppi, *Jewelry Concept and Technology* (Doubleday and Co., New York 1982) p.590
13 Middleton , J.Henry , *The engraved gems of classical times with a catalogue of gems in the Fitzwilliam Museum.* (Cambridge University Press,1891) p.103

hand without the aid of mechanical devices.[14] It is important to mention that in the case of gem engraving there has been comparatively little change in the basic techniques of carving; the primary tools remain the same as they were in the earliest days. Perhaps the only significant alterations have been in the manner of how the stone is addressed to the cutting and polishing surface and the use of mechanical devices. In ancient times the gem appears to have been fixed into position and the cutting tools worked around it. Evidence to support this supposition comes from depictions on gems themselves. In particular a famous Greek scarab of the 5th century BC in the British Museum's collection shows a man using a bow drill on an object fixed to a table.[15] Since the 15th century revival of gem carving it has been the practice of engravers to fix the cutting tools into position and work the gem against them.[16] This change of position results in slightly different scoring on the face of the gem and so gives subtle clues as to whether or not a gem is likely to have been made by a modern carver.[17]

The type of drill employed by ancient carvers was a simple bow drill of the type most people would be familiar with as a friction device for igniting a fire. It consisted of a piece of string, cord, sinew, etc., attached to a piece of bowed wood to create tension and then wound around a thin wooden shaft. This was then secured by some sort of supplementary clamping device, such as a tube or piece of wood with a hole cut into it, in order to prevent the hand from coming into contact with the shaft and impairing its revolution, as well as to protect the skin from extreme heat caused by friction (the modern component is called a mandrel.)[18] Energy is imparted through rapid forwards and backwards strokes in order to rotate the point of the shaft with enough speed to cut into the stone face. The tip of the shaft was capped by some sort of soft metal – copper, bronze or iron – which was more resistant than bare wood to degradation from the extreme heat caused by friction arising from the drilling action. The final essential component

14 Boardman, John, *Archaic Greek Gems: Schools and Artists in the Sixth and early Fifth Centuries BC* (Thames & Hudson, London 1968) p.170

15 Middleton,*Engraved...* p.105

16 Renton, Edward, *Intaglio Engraving past and present* (George Bell& Sons, London 1896)pp.90-1

17 Throughout this work the term 'Modern' is used to describe any gem or cameo produced since the Renaissance.

18 Renton, *Intaglio...*p.84

to cutting the gem surface was a slurry formed by a light drizzle of some form of lubricant, like olive oil or water, which had been fortified by a finely powdered diamond dust (in ancient texts called *adamas*,[19]; and in the 19th century *emery of naxos*,[20] this dust would have been any mineral rated 9 or 10 on the Mohs[21] scale, such as diamond, sapphire or corundum). It is this slurry which was the main cutting element, the extremely abrasive action of the harder minerals upon softer minerals enabling the delicate and minutely detailed intaglio and cameos to be created.

The tubular drill was another prevalent type of tool used for working stone, but it was not often used on gems as its larger dimensions prevented finely detailed work from being executed. On gems it was usually used to create rounded details such as eyes. The form of the drill was of a hollow bronze tube with an abrading substance such as small crystals of corundum set on the working edge.[22]

The wheel was typically a small diameter disc of metal, such as bronze, which was set on the end of a shaft in similar fashion to that of the drilling point. It was lubricated in the same manner as the drill and all the cutting principles are the same. The only minor difference is that the cutting edge of the disc was at right angles to the shaft and was not a precision tool; "To use the wheel for any other purpose than blocking out the design requires exceptional skill on the part of the operator; otherwise it produces a very coarse and clumsy style of work."[23]

The *diamond point* is the name given to what is essentially an etching and finishing tool. There is no direct evidence to support the use of diamond by the ancients, but another hard stone such as sapphire or corundum would have achieved the same etching effect, being significantly harder than the chalcedonies and quartzes commonly used for intaglios. This hard tipped tool was used in the

19 Warmington, E.H. (Ed.). *Pliny: Natural History* (Harvard University Press, 1938) H.N. xxxvii. p. 200

20 Neverov, Oleg, *Antique Cameos in the Hermitage* (Aurora Art Book publishing, Leningrad, 1974) p.54 : Encyclopedia Britannica Eleventh Edition vol.XI p.562

21 Named after the 19th Century German Geologist Friedrich Mohs, who created a system of hardness values for minerals, ranking them from the softest, 1, to the hardest, 10. The harder minerals will always cut into any softer mineral. Typically, gems used for cameos and intaglios are in the 5 to 7 range.

22 Neverov, *Antique Cameos...* p.108

23 Middleton, *Engraved gems...* p.109

same manner as a pen or brush, hand held and applied directly to the stone's surface without the use of an abrading liquid. The point was used for finely detailed work on the gems, such as the creation of wavy effects in hair or costume, or to rough out the basic design on the raw surface of the gem. The naturally occurring form of the crystal would have been used simply due to the fact that crushed diamond would not have achieved the desired effect, being too small. Pliny also states that diamond splinters were sought out by gem engravers and set in iron, and easily hollow out stones of any degree of hardness.[24]

After the carving was completed the final step was to bring about a finished surface to the gem. There were different objectives to the polishing of the gems: in the case of intaglio to provide as smooth a surface as possible so that the soft material used for impressions was less liable to stick to the gem surface and result in an inferior seal;[25] to remove any imperfections left by the carving process and make an appealing stone for setting into a metal carrier; and in the case of cameos to impart a smooth and lustrous surface finish which was vital to the attractiveness of the gem.

To smooth out rough edges or remove larger masses of material a modified form of the wheel was used. A form of whetstone was attached to the end of the shaft and moistened in the manner a modern whetstone is used. There is no direct evidence but it is supposed that some form of lathe was used and the gem manipulated by hand around the rotating whetstone. As a supplement to the whetstone, a type of soft file, made from a mixture of emory and melted resin, was used. To impart the lustrous, polished final finish, a fine abrasive powder was placed onto a textile surface, moistened and then the gem was carefully worked to its final form before being placed into its setting.[26] The settings utilized by the ancient craftsmen were diverse and creative, much as the subjects on the gems themselves: frescoes found in Crete show lens and almond shaped gems being worn in metal swivel settings that are suspended from the wrist,[27]

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24 Warmington, *Pliny...* H.N. xxxvii p.60
25 Ibid p.104
26 Middleton, *Engraved Gems...* pp.113-4
27 Neverov, *Antique Intaglios ...* p.10.

set into finger rings,[28] on statues and furniture,[29] on dishes, caskets, musical instruments, and the robes of priests, nobles and kings.[30] Clearly the mania for gems of all types, shapes, sizes and colours was a dominant feature of taste and style for more than a millennium.

Although certain types of rock carvings in relief have been made since the dawn of art, the specific form of the cameo as we recognize it today did not begin to appear until the 4th century BC when an abundance of new materials was introduced to craftsmen in the wake of Alexander the Great's conquests in the Middle East.[31] With the new stability across the Middle East, trade with northern India was made easier and it is materials from here that enabled the form of the cameo to be more artistically pursued. A characteristic of the cameo is its 'banded' layers of distinct colours. Any mineral may be carved in relief but it is extraordinarily difficult for the eye to distinguish the detail in relief of a single colour, hence the utility of intaglios whose impressions are more readily recognizable to the eye. The chalcedonic varieties of quartz were the stones most commonly used by the ancients for the carving of cameos. These stones are banded in two layers of colour and the relief of the cameo is cut parallel to the strata; the differences in colour are a result of the presence of iron and other impurities in the quartz at the time of its geological formation. Two distinct groups of banded onyxes exist: white and black, sometimes white/black and brown, and known as onyxes (and variously called Nicolo); when onyxes are banded with carnelian or sard (which tend to be a peach or rose colour) instead of blackish bands, they are called sardonyxes.[32] No matter what name or in what era they were used the nomenclature of gems is often imprecise or misleading. Even when named it is never absolutely clear exactly what type of gemstone was referred to, or if the modern designation would be at all appropriate as many are mere colour variations of the same type of gem. The skillful cutting away of various layers of differing materials resulted in the decorative cameo, which on the whole was usually possessed of more artistic flair and a more complex

28 Boardman, *Archaic Greek Gems* ... p.176
29 Richter, *Engraved gems pt I...* p.3
30 Neverov, *Antique Cameos...* p.53
31 Tait, Hugh, *7,000 Years of Jewelry* (British Museum Press, Hong Kong 1986) p.216
32 Neverov, *Antique Cameos* ... p.52

Chapter 1
treatment of subject matter in larger scale.

It is difficult to completely ascertain the various designs on gems made prior to the sixth century BC, as there is no complete existing series of gems, chiefly owing to the fact that it was unusual, prior to this era, for harder stones, such as chalcedonies, to be worked. Earlier Mediterranean peoples, Minoans, Mycenaeans and Cretans, had a tendency to use soft stones, like steatite or ivory; materials easily destroyed over time.[33] In the transitional era of the sixth century the scarab shape was giving way to lenticular, or lens shaped, and glandular shaped stones of a smaller size, more suitable for being set into rings rather than being worn from the wrist.[34] By the fifth and fourth centuries BC the sizes and shapes of carved gems were evolving, the motifs diversified and changed from a typically rigid, linear image to a fleshier and more sophisticated form.[35] This evolution can be attributed to the use of new tools, such as the bow drill, which allowed the engraver to tackle more intricate designs and harder materials than tools had hitherto made possible; technical innovations resulted in stylistic and material developments.[36] By the second and first centuries BC, Hellenistic and Roman styles were overlapping as the two cultures increased their cultural and economic exchanges. The depictions on gems became less classical and displayed more mannered and precise portraits on gems, which tended to be purely decorative in nature.[37] The subjects depicted on gems are as diverse as the human imagination allows. The ancients particularly favoured themes which displayed the gods, the actions of mythical heroes, portraits of illustrious personages, animals, daily life, paintings, sculpture etc.,[38] subjects which were skilfully emulated by the neoclassical engravers – giving rise to considerable confusion concerning authenticity.

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33 Boardman, *Engraved Gems* ... p.13
34 Ibid p.18
35 Ibid pp.14-15
36 Neverov, *Antique Intaglios*... p.17
37 Boardman, *Engraved Gems* ... p.18
38 Richter, *Engraved Gems of the Romans* ...p. vii Although all of the sources dealing with gems inherently deal with the motifs at great length and for the purposes of this work it is unnecessary to go into any great discussion of this complex and diverse issues.

Chapter 1

The relatively few gems which survive from the Roman Republican era show a variety of Hellenistic and Etruscan influences. The surviving stones of the Roman Imperial era are most abundant in quantity, diversity of theme and materials.[39] It was during the Imperial period that the collecting of gems became a popular pursuit of the elites; *Dactyliothecae* –"cabinet of rings" were compiled by various luminaries such as Caesar and, by Octavian's son Marcellus, and dedicated to various gods and their temples.[40] On average the size of the stones, cameos included, in these cabinets and in general circulation were small and easily set into rings and other devices.

As the Roman Empire declined so did the quality of the gems produced, and as Christianity rose, gems with Christian symbolism, fish, anchor, ship, dove, the Good Shepherd and the lyre, were produced. From the second to the fourth centuries AD the majority of intaglios created were of gnostic types which featured an odd blend of writing and imagery. The symbolism on gnostic gems is most often associated with Mithraic worship.[41] These gems also incorporate all manner of ancient pagan beliefs and doctrines of ancient Egypt and astrological significance, which reflected the superstitious and syncretic nature of gnostic cults and their mystical world view.[42]

After the fall of the Roman Empire and the ascendancy of Christianity as the dominant religious and political dogma in Europe, the iconoclastic suppression and assimilation of ancient beliefs was fervently pursued by the new theocracies. Many wonderful works of ancient art were destroyed on account of their heretical nature. However in many instances old symbols were adopted and given new interpretations and gems performed much the same function for their new owners as they did for their previous ones.[43] Cameos and intaglios were widely adopted by the Christians (which helped preserve them during the middle ages) and new interpretations were ascribed to the depictions on the

39 Richter, *Engraved Gems of the Romans*... p.1

40 Ibid p.23: Also Richter,*Pt. II* ...p 1

41 *Encyclopaedia Britianica*, Eleventh Edition XI ...p.568

42 Neverov,*Antique Intaglios* ... p.21: Zazoff,Peter, *Die Antiken Gemmen* (C.H. Beck'sche Verlagsbuchhandlung, Munchen 1983) p.349

43 Zazoff, *Die Antiken Gemmen* ...pp.381-2

gems, particularly to cameos which were often incorporated into devotional artifacts at cathedrals and monasteries, such as altars, crucifixes and the like. In fact the term *cameo* is not an ancient one; likely it was derived from the French term *camaieul* or *cammaheu* which appears in French documents of the thirteenth century. It is thought that this was adapted from the Greek word, heard by crusaders, literally 'a jewel'.[44] The veneration accorded to many cameos reflected the faith of the Christians; some held the cameos to be "the work of the children of Israel during their sojourn in the wilderness, while another theory held them to be direct products of nature, the engraved figures pointing to the peculiar virtue lodged in them. Interpreters less mystically inclined found biblical interpretations for the subjects"[45] One excellent example of this practice of reinterpretation is to be found in the Grand Cameo of *Sainte-Chappelle* in the collection of the Bibliothèque Nationale in Paris. The genuine representation is of the Glorification of Germanicus attributed to Discorides and made during the reign of Tiberius. The clerics of *St. Chappelle* chose to interpret the scene as the triumph of Joseph over Pharaoh.[46]

The gemstone has occupied an important place in the artistic and social development of the western world, and indeed the world as a whole; its beauty and durability standing as mute testament to the creative urges in humankind. It is therefore no wonder that after a few turbulent centuries the rediscovery of ancient knowledge during the Renaissance would trigger a renewed appreciation, and the custom of carving and collecting reached its zenith during the neoclassical revival and 'Grand Tour' in the latter part of the 18th and early part of the 19th centuries. Gem carving and collecting has been in decline since the mid 19th century and has virtually ceased to be practised as high art in the 20th century. Cameos are now almost entirely produced from cheap marine materials such as conch shells and are used mainly as inexpensive ornamental devices for rings and brooches.

The practice of gem engraving was for the most part dormant, though not

44 Neverov, *Antique Cameos ...* pp. 69 and 51

45 Encyclopedia Britannica, Eleventh Edition vol.XI... p.568

46 Leroux, Ernest *Bibliotheque Nationale: Cabinet des Medailles et Antiques: Les pierres Gravees* (Paris,1930) pp.51-55 entry 264, plate XII

extinct, from the end of the Roman Empire to the Renaissance, when once again the allure of gems as adornment and as valued works of art motivated wealthy aristocrats anxious to build collections of gems. In particularly the Medicis (especially Lorenzo 1449-92), the Gonzagas (Cardinal Francesco, and Barbara) Isabella d'Este, the sculptor Donatello and Popes such as Paul II and Paul III,[47] were great collectors of gems. As well as fueling an interest in acquiring genuine ancient gems, the creation of new works was also stimulated. Owing to a similarity in techniques gem engravers in this era were often engravers of dies for medals and coins – both forged and genuine.[48] (see figs. 1 + 2) Gems were most often collected by aristocrats and individual collections could be large, but there was not really a broad interest in collecting gems until the very early part of the 18th century (c.1724, see discussion of Stosch below) when a more vigorous revival occurred in response to the publication of a book dedicated to the study of gems bearing signatures, from the collection owned by Baron Phillip von Stosch, a noted antiquarian and scholar with a particular interest in numismatics and the collecting of engraved gems (Stosch's sizable collection was later catalogued, posthumously, by the art historian J.J.Winckelmann in *Description des Pierres Gravées du feu* [sic] *Baron de Stosch, 1760)*.

THE 18TH CENTURY REVIVAL OF INTEREST IN ENGRAVED GEMS

Phillip von Stosch is one of those figures of the 18th century whose modern reputation is based upon his scholarship, but his living reputation was somewhat more eclectic – in particular his book of selected gems from his large personal collection entitled *Gemmae antiquae caelatae, scalptorum nominubus insignitae* (1724) was a key work which helped to ignite the mania for gem collecting. The notorious adventurer and amateur art historian, Baron d'Hancarville, in his book entitled *Monumens du culte secret des dames romaines,* makes a number of references to erotic gems previously owned by Stosch. However, like Wincklemann and d'Hancarville, Stosch in his day was equally notorious for his non scholarly activities – debt, blasphemy, sexual

47 Brown, Clifford Malcolm, *The Farnese Family and the Barbara Gonzaga Collection of Antique Cameos* (Journal of the History of Collections vol.6 no.2 1994) pp.145-6: Kagan, J., *Western Cameos in the Hermitage Collection* (Aurora Art Publishers, Leningrad 1973)p.12

48 Jones, Mark (Ed.) *Fake?The Art of Deception* (University of California Press, Berkeley 1991) p.138

deviance, etc., – although his prodigious intellect enabled him to stay on good terms with the more respectable company that he kept. Stosch was a secret agent in Italy for the British government, keeping tabs on the Jacobites in Italy,[49] and he was also a very close friend of Cardinal Alessandro Albani (discussed in more detail later) and shared a house with J.J. Winckelmann for years.[50] Winckelmann was also a dominant figure in 18th century art history. Also of humble origins, he was befriended by Albani and worked on numerous commissions for people in and around Rome, a sort of mercenary scholar.[51] Yet another one of Stosch's keen interests was the collection of sketches by the artists Ghezzi and Odam, of all the marbles, bas-reliefs, statues, bronzes, engraved gems and medals "which illustrated the dissipations of the Ancients, their Bacchanals, Priapic games and sacrifices."[52] Stosch, like Winckelmann,[53] was a man of diverse sexual tastes and recieved no small measure of notoriety on account of it.

The techniques and themes employed by 18th century engravers, inspired by men like Stosch, were basically no different from those of the ancients; any advances were solely in the types of drilling and polishing apparatus that took advantage of mechanical adaptations which enabled sustained drill speeds and lessened fatigue to the engraver. One tremendous consequence of this was that it enabled unscrupulous dealers and carvers alike to fake gems. As techniques were basically unaltered, the available raw materials were unchanged, and stones are little affected by age and do not acquire any patination, it was comparatively simple to pass off modern gems as ancient. Therefore one of the few means of assessing the authenticity of any engraved gem is a stylistic comparison to other gems. But as no two gems are identical this enterprise is fraught with peril and it is not unusual for expert archaeologists to disagree with one another about the authenticity of gems.[54]

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49 Lewis, Lesley, *Connoisseurs and Secret Agents in Eighteenth Century Rome* (Chatto and Windus, London 1961) p.49

50 Lewis, *Connoisseurs...* p.39

51 Ettlinger, L.D. 'Winckelmann' in The Arts Council of Great Britain's Exhibition *The Age of Neoclassicism* (1972) p.xxx

52 Lewis, *Connoisseurs...* p. 67

53 Ettlinger, L.D. 'Winckelmann'... p. xxxiii

54 Richter, *Engraved gems of the Romans...* pp.22-23

Chapter 1
THE PROBLEM OF FORGERY AND FRAUD RELATING TO ENGRAVED GEMS

Another consequence of Stosch's book is that it stimulated demand for signed gems, and while gems were signed by some engravers in ancient times, this was not very commonplace. So in response to collectors demands for signed ancient gems (and the higher prices paid for such examples) 18th century carvers, dealers and connoisseurs engraved fabricated names in ancient Greek, or names of genuine ancient engravers, on unnamed ancient gems. In other cases the names of ancient carvers were inscribed on false modern gems (and the names of modern carvers, in greek, on modern gems), outright fakes – a practice to which Lorenz Natter, a celebrated late 18th century carver working in Rome, openly confesses that whenever he desired he made copies of gems and passed them off as genuine.[55] This willful and open deception was not a consequence of naivete, it was recognized that what was going on was outright fraud and the goal was to make money. Thomas Jenkins, one of the most successful, and dishonest, dealers in Rome was notorious for selling fakes for exorbitant prices. Early in his career the sculptor Nollekens aided Jenkins in 'restoring' statues and observed that

> Jenkins followed the trade of supplying the foreign visitors with intaglios and cameos made by his own people, that he kept in a part of the ruins of the Colisseum, fitted up for 'em to work slyly by themselves. I saw 'em at work though, and Jenkins gave a whole handful of 'em to me to say nothing about the matter to anybody else but myself. Bless your Heart! he sold 'em as fast as they made them. [56]

Of course it was not only the signatures and images that were wantonly fabricated, the actual stones themselves were adulterated in a myriad of creative ways.

> At times a real gem is used to create one of greater value, this happens especially with the saphire[sic] which is given the appearance of a diamond in a way that is difficult to distinguish from the real thing. The white saphires[sic], many can be found for little money. Forgers take these saphires[sic]...white powdered enamel mixed with spit coat the saphire[sic], let it dry, and put it in the pot with equal amounts of steel dust and enamel powder. Having heated it very well they make it shine so that it cannot be

55 Natter, Lorenz, *Methode de graveur en pierres fines* (1754) p. xxx

56 Ford, Brinsley, *Thomas Jenkins: Banker, Dealer and unofficial English Agent* (Apollo, June 1974) pp.416-7 and taken from Whittens, Wilfred, *Noellkens and his Times* (London, 1920)

> distinguished from a diamond...It makes one wonder why great amounts of money are spent on the real gems when the fakes look so real![57]

This practice was commonplace and undoubtably some stones were later engraved and passed off to unsuspecting and gullible connoisseurs and tourists alike. This is not to suggest that all carvers were involved in deceit; many were celebrated artists in their own right and openly worked in what they considered to be the classical style, and it was others who mistakenly or deliberately asserted that modern gems were in fact ancient. This was not helped by the fact that many of these carvers habitually worked in a classical Roman style, but curiously signed their names transliterated into Greek, often as an anachronism ruse to catch out 'connoisseurs'.[58] Some of the more famous carving 'names' of the 18th and 19th century are:

> Amastini, Aschari, Bernabe (g), Becker, Beltrami, Bernini, C.Brown, W.Brown, Burch(g), Cades, Cerbara, Constanz(g), Dorsch, Ghingi(g), Gibbon, Girometti(g), Guay, Jacobson, Krafft, Manson, Marchant(g), Morelli, Natter(g), Passiglia(g), A.and L. Pichler(g), Pistrucci, Rega(g), Rosi(g), Santarelli, Siries, Flavio and Francesco Sirleti(g), Torricelli(g), Tuscher(g), Vernon, Walther(g), Weber(g),and Wray(g).[59]

A number of these carvers repeatedly surface in connection with sets of *impronte,* either as makers of them or as artists whose works are prominently featured depicted on *impronte*. The *impronte* themselves were in no way intended to be fraudulent, being made of plaster and sulpher, but some *impronte* makers did skirt the bounds of legitimate and fraudulent behavior. As will be shown later, Tommaso Cades was intimately connected with the faking of gems, and many carvers such as Pistrucci, Marchant, Cerbara and Girometti are also implicated in faking or have had their own works misrepresented as ancient. This was not helped by the production of *impronte,* which popularized many of these artisans, made collecting by category and sequence fashionable, and gave forgers easy access to accurate representations of classical figures to copy. Mind you, this is not to suggest that dealers and carvers were solely to blame for

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57 Aldini, G.A., *Instituzioni Glittografiche* (Cessena, 1785) pp.316-7

58 Natter was well known for this – signing his name in the Greek word for 'snake'-the meaning of his German surname.

59 Richter, *Romans...* p.19: see also Dalton, *Catalogue of the Engraved Gems of the Post-Classical Period in the British Museum* (1915) p. XLVIII (g) indicating signatures are known in Greek.

the proliferation of false gems in the 18th and 19th centuries; collectors and connoisseurs were often not able to gain sufficient experience with genuine ancient gems because many definitive references, such as Stosch, Winckelmann (purported to have mistaken the works of Giovanni Pichler as antique[60]), Mariette, Gori, Maffei and others, were themselves mistaken in attributing gems to the ancients, and it was not until classical archaeology became more systematic and scholarly in the late nineteenth century that a clearer historical understanding evolved that past errors of attribution were rectified. In other cases, connoisseurs could be wilfully ignorant of the authenticity of gems in order to protect their reputations. A example of this is an incident involving Richard Payne Knight and the Roman carver, Benetto Pistrucci, over the authenticity of a cameo *Head of Flora*. Knight had bought the cameo in London and considered it to be an antique; in 1815 Pistrucci (then a die engraver at the Royal Mint) proclaimed the work to be his own. A very public polemic was conducted via the journals of the day and Pistrucci made a very good case for his authorship but was not 100% convincing. Knight refused to admit that the gem was dubious, probably in large part due to ego and partly owing to the fact that his reputation was already eroding due to his opposition to the acquisition of the Elgin Marbles by the British Museum and he was anxious to avoid further embarrassment.[61]

The reasons why fakes abound are complex – from innocent emulation to pure avarice – and deeply rooted in human psychology. In fact the actual definition of what exactly is fake can entail an almost metaphysical construction. But at least in the case of gems in the neoclassical era the primary reasons for fraud generally conform to these points:

> They are, before all else, a response to demand, an ever changing portrait of human desires. Each society, each generation, fakes the things it covets most...For Renaissance humanists it was relics of a different kind, of that source of all beauty and enlightenment, the ancient world. Succeeding generations added demand for the work of famous artists, for things associated with famous people and, by the late nineteenth century, for almost anything that spoke to them of the calm certainties of the vanished

60 Kagan, *Western...* p.22

61 Clarke, Michael and Penny, Nicholas, *The Arrogant Connoisseur: Richard Payne Knight 1751-1824* (Manchester University Press, 1982) pp.74-75

> past...if the market concerned is in antiques, however broadly defined, the fakes produced for it will reflect its demands more accurately than the genuine works traded in it.[62]

THE PONIATOWSKI GEMS

The so called 'Poniatowski Affair' of the 1830s did much to discredit and undermine confidence in and ultimately wipe out the market for the collecting, by connoisseurs, of gemstones both ancient and modern.

Prince Stanislas Poniatowski (b. Warsaw, 23 Feb, 1754; d. Florence, 13 Feb, 1833) was an extraordinarily wealthy collector and patron of the arts during the late 18th and early 19th centuries, owned several significant properties in Poland, and lived in Italy from 1800 to his death. In Rome he owned two palaces, one on the corner of the Via della Croce and the other at what is now the Via di Villa Giulia. His collecting interests were extremely diverse, archaeological, ethnographic, classical and neoclassical objets d'art, drawings, paintings etc. A well known fixture in artistic and aristocratic circles, he was socially and professionally associated with painters such as Anton Mengs and Angelica Kauffman, and the sculptor Canova.[63]

It was the prince's interests as a gem collector that were to cause him such posthumous notoriety. Poniatowski inherited about 150 gems from his uncle, King Stanislas of Poland, comprised of some ancient, some modern, and Renaissance gems; his collection was carefully rendered inaccessible but in 1831, shortly before his death an anonymous catalogue (presumed to have been written by Poniatowski himself) of his collection appeared, which described a collection of 2,601 gems-20 of cameos, the remainder intaglios.[64] The problem which disturbed so many collectors was the presence of 1,737 signatures of ancient engravers on the gems; even more problematic was the tremendous similarity in size, shape and composition of these gems. It was not until the sale of the majority of the collection by Christie's in London during April of 1839 that

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62 Jones, *Fake?...* pp.13-14

63 Turner, Jane(Ed.), *The Dictionary of Art* (Grove, London 1996) vol. , p.213

64 Jones, *Fake?...* pp.149-50 and: Middleton, *Engraved Gems...* Appendix ,p.xxv

the truth began to emerge.[65] The purchaser of 1,140 gems that day was Col. John Tyrell, who promptly hired the antiquary, Nathaniel Ogle, to write about the collection, but Ogle exposed the fraudulent gems as contemporary works by Italians such as Pichler, Girometti, Cerbara, Rega, Odelli, Dies and Cades, which enraged Tyrell.[66]

The prince's motives in commissioning such gems are unclear and various scenarios have been proposed, it is generally accepted that the prince was too knowledgeable to have been deceived by engravers or dealers himself. As he never tried to sell the gems in his lifetime, profit can be eliminated as a motive; some have suggested that he intended the series to challenge modern engravers to achieve the skill of the ancients, but that is undermined by the seeming need to add ancient signatures. A passage in Forrer quoted from another source on the subject remarks that "Altogether the whole performance carries us beyond the realm of any reasonable line of explanation and one is driven to take refuge in a suspicion that Prince Poniatowski had simply become an unbalanced monomaniac on the subject".[67] Undeterred and unconvinced by the controversy surrounding his collection, Tyrell had another book/catalogue written by James Prendeville and published in 1841, which accompanied plaster cast impressions of the Poniatowski gems in his possession; a large number of these are in the Ashmolean collection, sixteen collections of varying numbers. (see Appendix A for more details and figs. 3 + 4). However, this attempt to rehabilitate the reputation of the Poniatowski collection failed, and although gems continue to be studied by a small number of modern academics, in the wake of this mid 19th century controversy, there has never been a revival in the widespread popularity of the study or collecting of ancient gemstones.

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65 See Christie's catalogues for April 29, 1839, and corresponding articles in *The Times* for May 7, 18 and 22, 1839.

66 Various sources disagree over which carvers made the gems and which added the signatures,or both. But all of the names listed above are agreed to have been involved in various stages of the production of the gems for Poniatowski.

67 Forrer, Leonard, *Biographical Encyclopedia of Medalists, Coin, Gem, and Seal Engravers, Mint Masters, etc., Ancient and Modern: With Reference to Their Works. BC 500-AD 1900* (Spink and Son Ltd. London 1904-30) vol. VII A-L supplement pp.143-44

CHAPTER TWO:

The Materials, Manufacture and Conservation of *Impronte*

Chapter 2
IMPRONTE: MATERIALS, MANUFACTURE AND CONSERVATION

In various museums and university collections around the world quantities of plaster, sulpher and glass – paste casts after coins, gems, sculpture etc., exist, but have usually been neglected, both in academic and material terms. During the mid 18th century a growing interest in the antique spawned a demand for readily accessible and portable, yet attractive visual study aids. The impressions in plaster and sulpher produced by the Roman workshops were uniquely adapted to serve this purpose. In *The Materials of Sculpture*, Nicholas Penny makes the succinct observation that "For the most part plaster casts have not been regarded as works of art. They were above all, aids to study, an essential feature of the artist's academy and they also became valuable to archaeologists as photographic collections were for students of the history of painting. In addition, they played a crucial role in the making of sculpture"[1] Although referring directly to large statuary and portrait busts these observations most certainly can be applied to the sulpher, glass paste and plaster *impronte* produced in Rome for souvenirs of the Grand Tour.

These objects, variously referred to as *impronte, calchi* and casts are simply impressions, in relief, of miniature works of art such as ancient gemstones, cameos, ancient and modern coins, medals, and imagined depictions of gods, heroes, mythological themes, famous locations, paintings, portraits of famous people, inspirational mottoes and other themes. Although they occur in wax, and very rarely in glass paste, the predominant materials are plaster or sulpher paste. The specific forms and variety of the collections will be discussed in a following chapter on the makers and themes depicted by the *impronte.* It is important to point out that there is no 'standard' representation or presentation of *impronte;* each set is unique to itself. Conclusions drawn from the immense collection of *impronte* in the Ashmolean Museum form the basis of this discussion. As far as can be ascertained the Ashmolean has the single largest and most diverse collection of these Italian Grand Tour souvenirs in the world, 135 sets[2] (see fig. 5) and thousands of individual *impronte* long since separated from their original display cases. The British Museum has four sets; by Dolce, Burch;

[1] Penny, Nicholas, *The Materials of Sculpture* (Yale University Press, London 1993) p.198
[2] Refer to the Ashmolean catalogue in Appendix A

one by Cades and one considered to be by Cades; the Victoria & Albert Museum two, one of Tassie and twenty trays by Paoletti; the Fitzwilliam Museum transferred most of its collection to the Ashmolean. The Museo di Roma, the Uffizi and the Bibliotecha Casanatense(Rome) all have small single collections of works by Bartolomeo Paoletti, notably in glass paste as well as plaster.[3]

The collections range from small, specific sets, for example, those representing illustrious men, such as the Twelve Caesars of Suetonius, to enormous collections known as 'Dactyliothecae' – Lippert's Dactyliothecae being notable amongst these. The typical form of sets of *impronte* is a box comprised of various numbers of nesting and stacking wooden trays containing affixed and numbered inventories of specific *impronte* arranged in didactic groupings, e.g. heroes, Caesars, coins, works of Canova, sculpture in private collections such as Sommariva's and that of Cardinal Albani (see fig. 6). *Impronte* are also small, round or oval and occasionally square in form, typically between 2 and 5cms in diameter, with some exceptional pieces as large as 12cms in diameter, and not more than 2 and 3cms thick. The *impronte* made by the Roman workshops are invariably bordered by stiff card paper, usually in grey or white gilded paper, but some with black paper are encountered. The paper borders are intended to provide strength and protection to the casts as well as to enhance their appeal to the eye, and they also serve as a good surface to glue upon (see figs. 7,8,9). In original and untampered sets that are as their makers intended, the arrangement of the casts is very meticulous. They are arranged stylistically and symmetrically so that groups have an even balance. A key indication that casts have been removed from their original setting is an uneven or asymmetrical linear arrangement. As these were items of low to moderate cost, the quality of the mountings varies considerably too. The stacking trays are usually made of very thin cheap scraps of wood;[4] more elegant and likely more expensive sets are mounted in cases made to resemble books, individually and in multi-volume sets. In all likelihood the folio cases would have been commissioned from bookbinders (see fig. 10). Other sets have been removed from their original cases

[3] Confirmed through written correspondence with the relevant curatorial staff and personal visits to the British collections by the Author.

[4] David Jones, a furniture historian at the University of St Andrews provided this assessment of the wood and the joinery employed in their construction. He conjectured that they could have been made from scraps of construction wood, old shipping crates, or commissioned from furniture makers.

and remounted as their owners saw fit; others were placed into medal cabinets; some, such as the Christian Dehn collection in the British Museum, were in all probability originally mounted in medal cabinets; many were mounted into picture frames and hung from walls, others never made it out of their original shipping crates. One of the few sets in the UK that was examined which had an unbroken provenance was that in the collection of the present Lord Elgin at his family home, Broomhall, near Dunfermline, Scotland.[5] When the roof of the house underwent repairs about seven years ago the workmen discovered a large box of *impronte* in the rafters. They were in a large heavy wooden box, nailed shut and still wrapped in their original tissue paper (see fig. 11). Lord Elgin is absolutely certain that they would have been purchased in Rome by or for Thomas Bruce, the seventh Earl.[6] Unfortunately, no specific reference to this purchase was recorded in his diaries or in his account of expenditures (kept by his secretary William Hamilton) which itemize only large and significant purchases. It is assumed that this collection would have been included in sundry expenses. Nevertheless, it is an important collection, not only for its provenance but also for the fact that it seems obvious that the intent was to mount the *impronte* into more suitable surroundings at their destination. All of the *impronte* are numbered and presumably a manuscript catalogue was included, but it could not be found. It is the author's strong opinion that Lord Elgin's *impronte* were produced by the Paoletti firm, owing to the likely relatively early date of acquisition, the large quantity and the inclusion of certain casts, such as a large gorgon's head, which only appear in Paoletti collections in the Ashmolean; but it is not certainly known which maker produced these, as there were no labels or identifying marks evident. It is interesting to note that the man who brought the Parthenon Friezes to Britain saw fit to bring a collection of *impronte* as well. The other set with unbroken provenance was a set of casts after neoclassical gems made by Burch and Marchant, which was purchased by Sir John Soane to complement his collection of about 400 classical and neoclassical gems still at his

5 Information obtained during a personal visit to Broomhall, Dunfermline in order to view the casts and review the diaries in Lord Elgin's private archive. May 21,1996.

6 Lord Elgin spent some time at Canova's studio in Rome, near the Piazza di Spagna, consulting the sculptor about 'restoring' the Parthenon friezes, so his entourage was very near the centre of *impronte* makers. See also Checkland *The Elgins 1766-1917.*

Chapter 2

residence in Lincoln's Inn Fields, London.[7]

After lavish Dactyliothecae were made by Daniel Philip Lippert it became increasingly fashionable for the crowned heads of Europe to amass large collections of miniature casts for study purposes. This in turn provided the stimulus for less esteemed individuals to own sets of casts as well. The mania for sets of casts seems not to have taken off in Italy until sometime during the 1780s and peaked between 1815, shortly after the end of the Napoleonic wars made it safer to travel in Europe, and 1839, when the Poniatowski affair basically put an end to gem collecting. One basis for this stems from the examination of dictionaries of art contemporary to the 1790s in which few entries for *impronte* can be found.[8] However by 1821 they were more usual; a long entry was found in editions of dictionaries of art of which the following is an example:

> IMPRONTA. An image or imprinted figure for the carved half of whatever subject. These are chiefly of the representations that are obtained in any soft matter in relief, paste impression of a carved stone, or carved intaglio. For the purpose of collecting multiples of the impressions of the stones, or of the ancient and modern pastes, are formed into bountiful collections. They are commonly made with gesso, or with liquefied sulphur, mixed with vermilion of Dutch origin,which in molten sulphur doesn't blacken and sets in seconds after simple cooling. On those selected objects,prepared with the dessicant glue which dissolves in water, one pours liquefied matter on the hollow, soon after setting it can then be polished with stone of tripoli. Now they often are the most common in Rome, where a big traffic in them is practised, with a volume three times of that elsewhere. It is understood that because of thrift by the makers only a thin amount of gesso is faithfully poured over the cast object, so it is always preferable in sulphur, because after long time, the gesso cast fades, or is blackened, so that it is difficult to recognize, it is not hard to pass a feather, a sponge or some cotton , or other material lightly dipped in the oil, over the sulphur and all the representations revive in an instant, which with the other materials is not obtained, because the gesso absorbs the oil, and is in this way obscured, without reversal. Many have collections of impressions that have been publicized in copper plates; such it is that of the Abbe. Rapony's grand volume in folio: those of other collections have not yet been publicized in catalogs. But the most bountiful and most celebrated is that of James Tassie, the Scottish sculptor, who with inconceivable promptness was able to pick

7 Information from correspondence with Helen Dorey, Deputy Curator, dated Sept. 20th , 1996. confirmed by a personal visit on September 26, 1996. Made by Burch in Rome.

8 For example: Milizia, Francesco. *Dizinario delle Belle Arti Del Disegno estratto in gran parte Dalla Enciclopedia Metodica*, (2 volumes, Bassano 1797.)

> up from all the museums in Europe,over 15,000 impressions of carved stones, which he published in the year 1791 in London by Raspse, in 2 vol. in 4.° Improntare of his own impressions of masters of the gem and of the coin. In *Prose Fiorentine* certain impressions of medals are named, as are those other imaginative impressions sculpted in wax.[9]

In fact so rare are eighteenth century references to the techniques of manufacture of *impronte*, or even their very existence, that the preliminary essay on neoclassical gemstones in *Del Arti Del Disegno* indicates that Aldini is the only recognized, reliable source of information on impronte from this era.[10]

While nowadays plaster is still a versatile and widely employed artistic and construction material, sulpher and glass paste are no longer encountered. Furthermore, plaster has many diverse applications and is suitable for the creation of monumental copies, such as those on display in the Cast Gallery at the Victoria and Albert Museum in London- notable is the full – scale plaster replica of Trajan's column- as well as being admirably suited for casting exact copies of coins, gems and other finely detailed and small works of art. Sulpher seems only to have been useful for the replication of small – scale items; its long splintered crystalline structure and unique cooling properties makes sulpher inherently brittle and therefore unwieldy and unstable in any large – scale application. Glass paste was a material mastered and used only by a few well – known makers, the most famous being James Tassie. Contemporary accounts of Bartolomeo Paoletti's activities indicate that he also executed works in glass paste, but the only known collections are in the Museo di Roma and the Uffizi.[11] Glass paste *impronte* are very rare items and seldom appear in museum collections.[12] Works in plaster are by far the most common, followed by sulpher. The reasons for this are seemingly simple: while sulpher delivers exceptionally detailed and robust impressions it is a very caustic and unpleasant material with

9 Vallardi, Pietro E.Guiseppe. *Introduzione allo studio Delle Arti Del Disegno Vocabolario Compendioso : Per uso degli studiosi amatori delle opere di architettura, scultura, pittura, intaglio ec.* (2 vol. Milano, 1821. libro secondo) pp.157-8

10 Ibid pp.143

11 Archives of work done for Ferdinand III, Grand Duke of Tuscany, during 1796/7 account that Paoletti cast copies of the Grand Duke's gem collection in glass paste. 641 of these *impronte* are in the collection of the Museo di Roma. These are in all likelihood production matrices rather than 'end' products for sale. See the Chapter on 'Makers' for details.

which to work and in the production stage will also easily cause damage to many materials such as bronze medals and some minerals in gems, not to mention irritation to human organs, whereas supplies of plaster were widely available, as was the knowledge of how to work efficiently in the medium. Plaster is also a very benign, forgiving material and does not pose the immediate environmental complications inherent to working with sulpher. No information has come to light which would indicate that there was any appreciable price difference in the raw materials for any of the casting processes. While *impronte* have been primarily utilized as teaching aids to represent gems and such items, little attention has been given to the actual process of creating these cast impressions. This is as true today as it was two hundred years ago; a number of modern conservation and industrial/construction references deal with the various types of plaster, very few are known to deal with sulpher or which refer to the actual manufacturing process of *impronte*. The only 18th century continental account of the casting process known to be available is a short description by Gioseff-Antonio Aldini in *Instituzioni Glittografiche,* published in Cesena, 1785.

> If one has all the comfort, time and will to make such impressions, customarily portrayed in scajola, that or a strong, shiny and diaphanous chalk – in vulgar terms called *Specchio d'asino* (Literally, mirror of ass, presumably a very lustrous form of plaster), which may be selenite or speculatively the 'stone of Pliny'. This calcinated (literally 'limed stone') stone which is then reduced to gossamer like powder and sieved many times to prepare it for making into a paste from which any cast could be formed. I have seen in Vallombrosa and in Firenze many many works made from/by(?) P.D. Henry Hugford, abbot of that congregation who died in 1771. These most excellent casts imitated the disposition of many kinds of marble, of rare stones, by mixing varied ingredients that imitate the colour of those things that one wishes to represent with said powder of scajola. Some other similar pastes were worked and produced very handsome cameos and small portraits which were edged and surrounded with a thin layer of lead, or gilded card paper. They are then sold for what price can be had for their weight. I am satisfied from those I have acquired that they strive to conserve the memory of antiquity, or the portrait of any man of dignity or letters, or for any other subject dear to one of which they don't have the availability of the genuine effigy in engraved stone or specific medal.
>
> Sulpher is another material well adapted to delivering beautiful casts, it should be very clean and pure and if liquefied with a small quantity of some colour of your choice: a few of which are earth green {terre verde}, smoky black, ocher[sic], and yellow. After being well mixed the coloured material

> has to be poured on to a sheet of paper which is very smooth and greased with olive oil. One needs to be sure that you take a portion which is sufficient enough to make a cast as big as the stone you wish to represent. Put the mixture of sulpher on an iron or brass spoon and make it liquefy for a second time, while being careful to remove any dirt or scum that may appear. After this step it then has to be poured upon the stone which has to be secured with a little frame of lead or stiff paper fixed into place with a little brass wire so that it can hold the liquid without spilling. The material has to be carefully detached from the mould. After making the cast impressions one has to take away from them all the excess material that has over spilled. It is also necessary to cut them down or file them and give them a regular shape. The last thing to do is to border them with little pieces of golden coloured stiff paper. Next they are fixed to a board and arranged in a delightful pattern which not only gives them a sense of clarity but also protects them from touching and makes them more durable and lasting. If one has a few of these impressions he can put them into order, and so as to be able to look at them more comfortably one can view them on some numbered sheets of iron or wood which can be kept in order like a lot of little closets[sic]as people used to do with medals.[13]

Before considering the actual process of preparing moulds and the actual casting of the *impronte* it is important to examine the materials predominantly utilized in their creation. Of the three types of *impronte* the most frequently occurring materials are plaster and sulpher. Both of these materials are naturally occurring, abundant, easily worked and most significantly, cheap. However, when discussing the materials generically referred to as plaster it becomes readily apparent that it is a confusing, misleading and sometimes contradictory material to attempt to define. In the modern era industrial processing has succeeded in providing a chemically uniform product. Until very recently this was not usual as plaster products have a tendency to take on unique characteristics which are dependent on trace elements in the larger matrix of calcium, which is the primary constituent of plasters. To further complicate matters, until the 20th century plasters were generally mixed locally and individual artisans, craftsman and construction workers all had their own subtle, and not so subtle variations in the type of recipe used to mix plaster, which resulted in intentional and unintentional variations in properties dependent on the quality and composition of local sources of limestone and gypsum. It is commonly said that there are as many recipes for goulash in Hungary as there are cooks; the same could be applied to the making of plaster.

13 Aldini, G.A. *Instituzioni Glittografiche* (Cesena, 1775) pp.337-9, 343.

Chapter 2
PLASTER

Strictly speaking there are two varieties of plaster: Lime (calcium carbonate, $CaCO_3$) plaster[14] and Gypsum (calcium sulfate dihydrate, $CaSO_4$-$2H_2O$) plaster.[15] In a separate sub-category is plaster of Paris, which is essentially pure gypsum that is roasted and calcinated so that 3/4 of the original H_20 is driven off.[16] Gypsum plaster can be defined as "all that class of plastering and cementing materials which are obtained by the partial or complete dehydration of natural gypsum, and to which certain materials that serve as retarders or hardeners, or that impart greater plasticity to the product, may or may not have been added during or after calcination."[17] Gypsum plasters are processed differently according to their intended application and are classified as follows:

> A) Produced by the incomplete dehydration of gypsum. The calcination being carried on at a temperature not exceeding 190° C (374 °f).
> *Plaster of Paris,* produced by the calcination of a pure gypsum, no foreign materials being added either during or after calcination...
>
> B) Produced by the complete dehydration of gypsum, the calcination being carried on at temperatures exceeding 190°C (374 °f).
> *Flooring plaster,* produced by the calcination of a pure gypsum.
> *Hard-finish plaster,* produced by the calcination, at a red heat or over, of gypsum, to which certain substances (usually alum or borax) have been added.[18]

Calcination is the term applied to the roasting procedure which dehydrates the lime and gypsum.[19] Slaking is the term used to describe the process of rehydration of calcinated lime or plaster by its re-exposure to molecules of water, either through brief immersion in liquid water or exposure to atmospheric

14 Gettens, Rutherford J. and Stout, George L., *Painting Materials a Short Encyclopedia.* (Dover Publications, Inc. New York. 1966) p. 238
15 Ibid. p. 117
16 Rader, Lloyd F., *Materials of construction: their manufacture and properties.* (John Wiley and Sons Inc. New York, NY. 1915 Revised and rewritten 1942) p.265
17 Ibid p.264
18 Eckel, E.C. *Cements, Limes and Plasters.* (John Wiley and Sons Inc. New York, NY. 3rd ed. 1928) p.18
19 Rader, *Materials*....p.265

water; the latter process is often mistakenly referred to as 'air slaking'.[20]

In terms of utilization in the production of *impronte* only the very finely powdered lime and gypsum plaster products would have been used. The following varieties are all possible candidates for matrix material in plaster *impronte*: Plaster of Paris, Scajola, Gesso (sometimes called stucco), Lime plaster, Lime Putty and Pozzolina.

Plaster of Paris: so called because of the fine quality plaster obtained from the huge deposits of gypsum in the Parisian suburb of Montmartre,[21] is the hemihydrated sulphate of calcium ($2CaSO_4\text{-}H_2O$)[22] produced by roasting finely ground and sieved gypsum at a temperature of around 145°C. When the resultant powder is mixed with water it rapidly regains its lost water molecules and sets quickly into a solid.[23] In theory, to set plaster a quantity of at least 18% of the powder's weight must be water; in practice 30-35% is used.[24] In order to reduce the setting time of plaster of Paris it is common to mix retarding agents such as glue, vegetable gums, blood, packing house tankage (abbatoir waste) or other colloidal and mucollinguous materials.[25] Conversely, plaster of Paris can have its setting speed accelerated by the addition of alum or NaCl – common table salt.[26] The retarding agents keep the calcium molecules from coming into too close contact and delay crystal growth, and hence hardening; accelerators produce the opposite effect. Pure plaster of Paris sets within five to fifteen minutes, retarded or impure plasters require one to two hours to set and completely dehydrated types of plaster can take significantly longer.[27]

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20 Ibid pp.277-8

21 Penny, *The Materials* ... p.194

22 Zumdahl,Steven, *Chemistry* (D.C.Heath and Co. Toronto, 1989) p.211

23 Gettens and Stout, *Painting Materials* ...:p.253

24 Ibid p.253

25 Penny, *Materials* ...p.194: Rader, *Materials of Construction* ...p.267

26 Mayer, Ralph, *A Dictionary of Art terms and Techniques* (Barnes and Noble, New York 1969) p.297: Rader, *Materials of Construction...* p.267

27 Rader, *Materials...* p.268

Another characteristic of plaster of Paris is that it thermally expands slightly upon setting, which makes it a choice material for casting purposes as the expansion ensures that excellent detail can be obtained from the mould. [28] Pure plaster of Paris is highly absorbent and is not well suited for painting, but by immersing the set plaster cast in various materials like melted wax, paraffin, stearin, milk, shellac, etc.,[29] the pores are filled and the surface is smooth and resistant to the adherence of dirt and grease, enabling the plaster surface to be washed, and painted if so desired. If the plaster is mixed with glue, as opposed to immersed, the plaster sets to a very hard consistency and can be sanded and given an ivory – like surface lustre.[30]

Gesso: is an Italian term derived from the Italian word for gypsum; sometimes it is referred to as *stucco, gesso duro, gesso sotile,* or *gesso grosso.* Gesso, as its name implies, is based on gypsum and not lime. This term is specifically used to describe a material employed in artistic rather than construction applications. Gesso is a white priming ground that is very well suited for use as a foundation layer for painting or gilding when applied to unsuitable materials such as wood and uneven wall surfaces, whereupon it can be very finely worked and carved with ease.[31]

Although the definition of *gesso* varies considerably from source to source traditional Italian gesso was made from burnt plaster of Paris (completely dehydrated gypsum, which nowadays would technically be considered a hard finish plaster.)[32] If correctly prepared, gesso sets harder and more slowly than plaster of Paris (in hours rather than minutes) and it can be smoothed and manipulated more easily than plaster of Paris. The set surface is highly suitable

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28 Gettens and Stout, *Painting...* p.252

29 Gettens and Stout, *Painting...* p.253; Cutbush, James, *The American Artist's Manual, or Dictionary of Practical Knowledge in the application of philosophy to the Arts and Manufactures Selected from the most complete European Systems.* (Johnson and Warner Pub. Philadelphia, 1814)entry for Plaster-no page numbers; Unpublished letter to Professor John Boardman from Ian Kuniholm, Curator of Classical antiquities at Cornell university. March 9,1979.

30 Gettens and Stout, *Materials...* p.253

31 Ibid p.233

32 Rader, *Materials...* p.264

for painting and can be sanded and polished to an ivory like finish.[33]

The burnt gypsum that is used for preparing gesso is often mixed with animal glues, casein, parchment glue, fish glue, etc.; the variations of retarder are diverse and subject to the whim of the individual preparing the gesso.[34] In the twentieth century *gesso* is generically used to describe any form of whiting or ground material used in art regardless of its composition.[35]

Scagliola: is a specific variation of basic plaster of Paris that is blended with pigments and marble dust and/or other inert fragments which when set is an effective and attractive simulated marble. The finished surface, depending on the type of pigment and fragments mixed together, will easily take on a pure white or variegated marbled pattern.[36] A close relative of scagliola is *stucco lustro* which has a higher degree of marble dust content and is based on stucco, which contains fibrous filler material for larger construction applications.[37]

The name scagliola is derived from the use of the small fragments and splinters of marble which in Italian are called scagliole. Purportedly invented by Guido Sassi of Cari, Lombardy, in the early sixteenth century, it is more likely that he revived an ancient process of preparing plaster and his innovation was the addition of white marble, coloured marble and alabaster which provides a very hard lustrous workable surface finish. The use of coloured plaster for imitating marble was practised by the ancients-recorded by Pliny as *marmoratum opus* and *albarum opus*. [38]

Scagliola is a very cheap and versatile material which is easy and forgiving to

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33 Gettens and Stout, *Painting...* p.233

34 Mayer, *Dictionary...* p.164

35 Mayer, *Dictionary...*p.164: Penny, *Materials....*p.194

36 Mayer, *Dictionary....*p.347

37 Penny, *Materials...*p.311; Mayer, *Dictionary...* p.347

38 Hodgson, Fred T., *Mortars, Plasters, Stuccos and Artificial Marbles, Concretes, Cements and Compositions: A thorough and Practical Treatise.* (Frederick J. Drake and Co. Chicago, 1912) p.260 This being one of very few detailed descriptions of making and working in scagliola that could be found.Typical entries merely state that scagliola is plaster of Paris or gesso with marble fragments added to the mixture.

work with, it sets hard and is workable in monumental or minute detail.[39] Scagliola needs to be mixed in a dust free, warm but not too damp environment; glue water (or sized water) should be mixed as needed and only with clean fresh, not salt, water.[40] For use in small and finely detailed applications scagliola can be worked almost like bread dough. Finely sieved plaster of Paris and sized water are mixed and left to stand for about six hours, and the marble dust is added by cutting off portions of plaster and kneading together by hand on a clean marble or slate slab. If colour is desired the kneading procedure is repeated with the desired shade of marble dust. When thoroughly mixed, the paste is then rolled out and cut into slices about one inch thick, and next, in the palm of the hand rolled into walnut sized pieces. It can then be pressed into moulds, worked in situ or rolled into thin sheets depending on the requirements of the job at hand.[41]

To impart a polish to set scagliola a simple process is followed: the glue and dirt from the working stage are cleaned from the surface using a brush, sponge and plenty of water. Then a solution of glue water is applied to seal the pores and the plaster is left to dry completely. The drying time can take from one to five days depending on the size of the piece; this atmospheric drying can be hastened by adding a siccative, but must not be done by applying heat.[42] "If the polishing is well and carefully done, the polish on scagliola will equal, if not surpass that on real marble. Tripoli polishing stone, sometimes called *alana*, is a kind of chalk of a yellowish-grey colour. Water of Ayr stone is also used for polishing...salad oil is sometimes used for finishing. Linseed oil makes the hardest finish, and dries quicker."[43]

Lime plaster: is an ancient building and sculpting material and is used in a wide variety of applications.[44] It is prepared from various forms of calcium carbonate:

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39 Ibid p.262
40 Ibid p.265
41 Ibid p.271
42 Ibid p.276
43 Ibid p.277
44 Penny, *Materials* ...pp.194-5 : Gettens and Stout,*Painting*....p.251

limestone, marble (metamorphic limestone) and chalk, and is almost completely dehydrated during the calcination process. When applied to walls or moulded it is mixed with various agents to give the mass bulk and greater cohesion; materials such as salt, glue, casein, sand, hair, jute straw, finely crushed marble etc. are all used.[45] When fresh it is a highly caustic material known as quicklime and it readily decomposes organic matter. When slaked for a period of time it becomes less volatile and is most often used as a mortar for construction purposes, and as a wall dressing.[46]

Lime putty is calcium carbonate which has been slaked by brief immersion in water and then aged; it becomes a soft plastic paste that can be mixed with fine sand or marble dust. Typically it is used for fresco; this putty must be pure and aged for at least six months. A curious property of lime putty is that its modeling characteristics improve immensely with time; plasticity and consistency improves and it becomes less subject to setting defects such as 'popping'. Aged lime putty is also very typically used for ornamental plaster work. Since the Renaissance it is reported that hoards of aged lime putty have been stored below the frost line in the ground at secret locations and handed down by Italian craftsmen from generation to generation. It is nowadays a very scarce material.[47]

Pozzolanic plasters: are a specific class of plaster which is most commonly used as a cement material in construction, and occasionally as a plaster base for fresco.[48] It is essentially a compound of lime, silica and alumina, or lime and magnesium, silica, alumina and/or iron oxide. It is hydraulic, that is, it sets under water. The name is derived from the original source of the material, volcanic deposits at the town of Pozzuoli, near Naples.[49] Pozzolanic plasters are not dependent on filler materials to prevent shrinkage and facilitate binding on account of their high silica and alumina contents; when set they form a very hard and smooth surface

45 Gettens and Stout,*Painting*... p.250: Rader,*Materials*...p.285

46 Gettens and Stout,*Painting*... p.238.

47 Mayer, *Dictionary*...p.236 This section was condensed from Mayer's entry as it was the most concise reference to lime putty found.

48 Gettens and Stout,*Painting*... p.250

49 Rader, *Materials*... p.287

that takes paint and polishing well.[50]

SOURCES OF RAW MATERIALS

In Italy there are numerous sources of raw materials for making plaster. There are large deposits of gypsum at Volterra,[51] marble and limestone in the western Apennine mountains and the Dolomite ranges,[52] the famous quarries at Carrara, and the Apuan Alps[53] to name but a few. In his introductory paragraph to the Chapter on *Stucco and Gesso*, Penny observes that the process of burning marble or Roman travertine combined with lime was rediscovered by the Renaissance artists in order to provide stucco and plaster for low relief decoration in new buildings. "It is striking that the expansion of the marble industry had made large quantities of waste available at that same period"[54] However this new industry was not as benign nor serendipitous a development as one may be led to believe from these remarks. In fact a prime source of raw material for plaster was not by – products or waste of the marble industry but statuary and buildings intentionally destroyed for the express purpose of making lime for plaster.

> In Rome itself, the destruction carried on by the natives was for the most ignoble, most humdrum of purposes: marble, burnt, yields lime which can be used for plaster. Virtually every major building in Rome had in, or near it, a limekiln which was steadily fed irreplaceable fragments of the city's past glory. In February 1883, Lancini(Professor of ancient topography at the University of Rome) found one of these kilns that had been packed with statuary, awaiting the torch,and his description has a touch of the macabre about it. The kiln was near the atrium of Vesta *'and was wholly made up of statues of the Vestales maximae, some unbroken, others in fragments. The statues and fragments had been carefully packed together, leaving as few interstices as possible between them...there were eight nearly perfect statues* '...Petrarch was one of the first to protest about this peculiarly wanton means of destruction; but it was still going on over a century later, the architect Pirro Ligorio making one of the most chilling suggestions any artist could possibly make about the work of another. Powdered Parian marble makes excellent plaster, he notes, and it can be obtained from the statues which are

50 Gettens and Stout, *Painting...* p.250
51 Penny, *Materials...* p.194
52 ibid p.44
53 ibid pp.56-7
54 Ibid p.191

> being constantly destroyed. And side by side with the *Calcaraii,* the limeburners, worked the *Marmoraii,* the marble cutters, treating Rome as a quarry which supplied them with materials for their admittedly exquisite art.[55]

It is supremely ironic to consider that the materials for manufacturing *impronte,* which so often depict the great ancient and modern statuary, likely would have been cast with plaster derived from the very types of statues whose memory they purport to preserve.

SULPHER

After plaster the most commonly occurring material in which *impronte* are made is sulpher, which is an abundant naturally occurring chemical element comprising 0.06% of the earth's mass.[56] It occurs in large deposits and in numerous ores such as galena (PbS), cinnabar (HgS), pyrite (FeS_2), gypsum ($CaSO_4$-$2H_2O$), epsomite ($MgSO_4$-$7H_2O$), and glauberite (Na_2SO_4-$CaSO_4$).[57] It also occurs in nature as a by product of bacterial metabolism and volcanic activity, and numerous other processes. In Italy large deposits of sulpher have been known for centuries. These occur mainly in Sicily in the provinces of Caltinesseta, Girgenti, Raculmuto, Cattolica and to lesser degrees in Catania, Palermo and Trapani. Other mainland deposits occur east of the Appennines in Forli, parts of Pesaro and in the region around Cesena and Perticara, also occurring in crystalline form in Carrara marble.[58]

Upon first encountering this type of cast it seemed to be a peculiar choice of material, as it is not encountered as a primary medium for any other form of art. The immediate question is why was it chosen by the Roman artisans? There is no direct written account of how or why sulpher was initially adapted for the production of *impronte* but a very plausible explanation can be deduced by examining the various activities occurring in Italy and Rome from the

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55 Chamberlain,R.E., *The Death and Resurrection of Rome* (History Today, May 1978) p.306

56 Zumdahl, *Chemistry* ...p.829

57 Ibid p. 872

58 Encyclopedia Britannica Vol XXVI , Eleventh Edition 1911. *Sulpher* , p.61

Chapter 2
Renaissance to the 18th century.

Throughout its history Rome had been subject to various building booms and the capricious whims of its rulers and citizens, but the radical destruction of classical Rome didn't occur until the 16th century when the 'rediscovery' of ancient knowledge stimulated Roman civic leaders, and Popes, to revitalize the city by rebuilding Rome to her former glory.[59] The most significant phases of demolition occurred between 1505 and 1600, beginning with Pope Julius II's decision that the 1200 year old Basilica of St. Peter should be replaced with a newer one on the same spot.[60]

> There was strong and indignant opposition both from within and without the curia, Michelangelo being particularly heated. Nevertheless the measure went through and the oldest, largest and most sacred building in Christendom was knocked down as though it were a peasant's hovel...in the few months after Julius's decision the most important part of the basilica disappeared in a fury of destruction that did not spare the very tombs of the Popes. Bramante, the great and sensitive architect whose design for the new basilica had nerved Julius to action, acted like some goth or vandal. Indeed he went about his work of demolition with so passionate a dedication , so total an indifference to what he was destroying that he gained the sobriquet of *il Ruinante*- – the Destroyer.[61]

So what became of the rubble? Stone and other expensive and heavy building material was salvaged and used in the construction of new buildings as a cost cutting and convenience measure. It makes sense; if you were building a new grand edifice in Rome and you wanted a nice facade like they had in classical times how would you achieve this? The most expeditious way would be to go and take them from some old building that nobody was really going to miss. It was like United States foreign policy during the Vietnam War; in order to save the place they were going to have to destroy it. While in the process of creating a 'new' Rome, demolition works had uncovered the palace of Nero and it became a tremendously popular site for exploration and inspiration for decorative

59 Chamberlain, *The Death* ... p.304
60 Ibid p.306
61 Ibid p.307

themes in the new buildings.[62] One rediscovered motif was the use of fine stuccoes and plaster to create intricate reliefs on walls and ceilings. The earliest pioneer of this revival was Giovanni da Udine, a protege of Raphael's, who transferred his newly conceived *grottesches* via a system of boxwood moulds and tooling to the Villa Madama in the 1520s.[63] The significant aspect of this development is that it spurred the demand for huge quantities of plaster with which to adorn other new buildings. This was to remain the predominant form of wall covering and interior architectural decorative medium well into the late 19th century. When producing the raw materials for plaster of Paris, gesso, etc., vast quantities of gypsum and lime must be roasted and calcinated, as was indicated previously. Gypsum is calcium sulphate, and roasting of gypsum occurs at temperatures not exceeding 180° C, and sulpher is easily extracted from ores and stone at a low temperature, it's melting point being 113°C.[64] Therefore, in this process and temperature range measures of raw sulpher would be present as a by product of plaster production at kiln sites. It is logical to presume that some curious individual noticed that the cooled plastic sulpher acquired the tiniest detail of the rocks that it cooled upon. Casual experiments by plasterers with sulpher, applying plaster techniques may very well have led to the use of sulpher to cast impressions of gemstones.

Other means of extracting and processing sulpher were also practised with the sole intent of obtaining sulpher for other industrial applications and Italy in the 18th and 19th centuries was a leading source of sulpher for Europe.[65] The traditional method of extracting sulpher from various ores was to dig a pit and heap large quantities of ore in it and then fire the mass and after some time the melted sulpher flowed to the bottom of the hole and was then ladled out. By the early to mid 19th century the process of melting sulpher in a form of kiln called a *calcarone* (see fig 12) was devised and this made the extraction process

62 Chamberlain, *The Death*...p.309

63 Penny, *Materials*... pp.191-3

64 Encyclopedia Britannica Eleventh Edition, vol.XXVI p.62

65 Ibid p.61 There is also a reference to a comprehensive Italian article by Aichino, G. *Zolfo* (Encyclopedia delle arte e industrie. Turin, 1898)

significantly more efficient and the purity of the sulpher was also increased.[66] Any sulpher processed in a kiln will be contaminated with impurities, averaging about 3%; in order to refine the sulpher further it is put through a kind of distillation process whereby heated sulpher is exposed to water vapour and a precipitate known as *Flowers of Sulpher* is obtained.[67] Many industrial trade manuals refer to this type of *Flowers of Sulpher*, but they also indicate that it is a more expensive sort and purer can be easily refined by the workman at his shop and will lessen the cost of high quality materials.[68] In his account of sulpher casting Aldini notes that it is necessary to remove carefully the surface scum of impurities from the molten sulpher, suggesting that the sulpher at this time was generally of a low grade and low cost to the makers of *impronte*. The procedure of refining sulpher and the associated nomenclature is old, and has roots in alchemical practices where it is most commonly referred to as brimstone.[69] Sulpher and its properties would have been widely known as either moniker during the 18th century and the description of this type of sulpher appears in the first edition of the *Encyclopedia Britannica*.

> From the conjunction of the vitriolic acid with the phlogiston arises a compound called mineral sulphur, because it is found perfectly formed in the bowels of the earth. It is also called sulphur vivum, or simply sulphur. Sulphur is absolutely insoluble in water and incapable of contracting any sort of union with it. It melts with a very moderate degree of heat, and sublimes in fine light downy tufts called *flowers of sulphur*. By thus[sic] sublimed it suffers no decomposition, let the operation be repeated every so often so that sublimed sulphur, or flower of sulphur, hath exactly the same properties as sulphur that has never been sublimed.[70]

Sulpher also displays very differing characteristics and differing temperatures, which can be seen in the types of casts produced. The slightly differing casting techniques employed can also be observed. The most relevant characteristics of sulpher are the two structures of crystals that it forms once it has been heated,

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66 Ibid p.62

67 Ibid p.62

68 Cutbush, *The American...*Entry for 'sulpher' no page numbers.

69 Burckhardt, Titus, *Alchemy* (Element Books, Dorset. 1987) p.125

70 *Encyclopedia Britannica* or a *Dictionary of Arts and Sciences in Three Volumes.* (Printed by Donald Johnson, London 1773) Vol. II no.33 p.73

rhombic and monoclinic. Rhombic sulpher (see fig. 14) is the structure formed by stacked rings of S_8 sulpher which has not been heated above 120°C. Monoclinic sulpher (see fig. 13) is also S_8, but the rings are stacked differently if the sulpher is heated above 120°C and then cooled slowly. Rhombic sulpher is tightly packed and brittle, monoclinic sulpher forms long thin needle-like structures.[71] Heated above 180°C the sulpher becomes very viscous and has a deep red colour that is reminiscent of caramelized sugar.[72]

PRODUCTION METHODS

On account of the singular importance of the detailed procedures for casting miniatures in plaster and sulpher explained by Robert DeValicourt[73] the following sections have been excerpted, translated (and in some cases edited, paraphrased and reordered) so as to convey some idea of the process as practised under normal commercial conditions.

TOOLS:

The first step in making *impronte* is to assemble some basic tools and vessels for the mixing and pouring of the desired material.

The artisan should have at his disposal the following:
1. Some very clean vases in stoneware, or some sort of glazed earth.
2. Some iron spoons or strong wood spoons in order to stir, manipulate and pour the material.
3. Some shallow iron bowls of various size with which to melt the sulpher; making sure to have some with spouts for ease of pouring over large pieces.
4. Two or three spoons in thin iron to ladle material on the desired surface.
5. Some toothbrushes with which to clean the medals or stones before taking impressions of them.
6. A brush with very fine hair for spreading lubricant on medals before casting.
7. Two or three similar brushes , such as those used by goldsmiths and jewelers, in order to buff the finished surface and impart a brilliant shine.

71 Zumdhal, *Chemistry* ...p.871-2

72 *Encyclopedia Britannica* Eleventh Edition, vol XXVI. p. 63

73 Robert DeValicourt (Ed.) *Encyclopedie-Roret: Mouleur et Platre et Autres Matieres Plastiques* (Paris 1901)

8. Some squirrel hair brushes, or fine pig's hair for applying the first layer of plaster.
9. Lithargized oil for toughening the moulds and casts done in plaster.
10. Almond and/or olive oil for lubricating the pattern pieces (gems or coins).
11. A small furnace in order to melt the sulpher, or open flame, a sand bath or anything which will hold a sheet metal vase in which one stands the bowl containing the sulpher.
12. One or two sheets of tin with the edges raised about 27 mm to receive the finished sulpher casts, prepared in advance.
13. A stone mortar in which to grind the plaster, the coal black and other colours.
14. A horsehair sifter for plaster and the pigments.
15. Some bands of cardboard, map paper or other strong paper of different size and thickness which have been dipped in lithargized oil before being used to surround the mould or the cast. These are the few simple cheap and easily procured tools which the moulder needs to have available.

A few alternatives are to use polished canvas in place of cardboard, which is easily damaged when pouring sulpher and plaster. When using sulpher it is recommended that very thin bands of lead, tin, copper or iron be used. It is also useful to add two or three thick badger hair brushes for working with coloured casts as they are indispensable for cleaning the fresh surface of the casts.[74]

MAKING MOULDS:

The next step in the process is the making of moulds for taking multiple casts of medals, engraved stones and cameos.

In making a mould the first thing to be done is to ensure that the desired object is very clean so as to capture all of the finest details of the medal, stone or cameo. It is recommended to go carefully go over the object with a fine gnarl[sic] (a pick of some sort) and remove any foreign matter that may be in the recesses or around raised letters.

Next is to clean the object with a soap solution, a recommended mixture is equal parts of water and brandy with a portion of soap, which if applied in a light coat will free up any remaining dirt. If, after this action, the desired object is not clean, repeat the process with a stiff wood pic, repeat the washing of the surface with soap and wipe the surface with clean muslin or worn out canvas. If this fails to remove debris from any hollow portion the last resort is glazier's lute or wax.

74 DeValicourt, *Encyclopediae-Roret* ... Adapted from Chapter XIX. pp. 286-88

After cleaning, it is necessary to prepare the surface of the object to receive the sulpher or plaster by applying a light coat of almond or olive oil. Be careful to prevent the oil from going on too thickly as it will prevent a sharp mould from being made. The oil should just dampen the surface like a puff of breath. If there is too much oil it can be removed with a piece of suede, linen or chamois, which will not leave traces of lint on the lubricated surface.

An alternative method is to put one or two drops of oil directly onto the surface. Pour the drop into the deepest or highest part of the object and then carefully smear the oil about the surface with a very high quality piece of cotton, being careful not to leave any lint behind. Be careful to be sure that the oil has penetrated everywhere, especially the edges, otherwise the sulpher or plaster will adhere and be impossible to remove without destroying the mould. The only exception is if one wishes to make moulds in hardened plaster. It will be necessary to lubricate a little more heavily because of the extreme adhesive properties of this plaster since it is possible for parts of the cast to remain in the mould, or more seriously, for parts of the mould to remain with the cast, thus destroying the mould.

Often the first layer of plaster or sulpher should be discarded and treated as a cleaning step, it is also good practice to gauge how much lubricant and time is necessary to set the mould. It can only be gained by experience to know when is the right moment to separate the sections.

After preparing the surface of the medal or stone proceed to surround the object with a border of cardboard, map paper or other stiff paper which has been dipped in lithargized oil and cut to the desired thickness of the mould. It is strongly recommended that strips of canvas be used as they are more durable and can be wrapped two or three times the thickness of cardboard, thereby giving more strength. It is essential when mounting the borders to make sure they are exactly perpendicular to the surface of the stone otherwise the result would be an uneven edge which would be unattractive but also difficult to pour plaster or sulpher into. Another complication is taking moulds from square shaped stones etc., is that it is impossible to use the canvas or paper borders on account of the abrupt changes of angle, so metallic borders must be used. In some cases it is possible to use thin sheets of wood which have their corners overlapping. It is necessary to seal these forms with a piece of bread between the metal and the stone and securely tightened with wire on the outside. Always ensure that the metal and wood strips are lubricated.

After carefully mixing the plaster or sulpher it is time to cast the mould. Taking a fine haired brush, brush a layer of plaster evenly and carefully over the face of the stone ensuring that all the deep parts are well covered and dab the plaster with the bristles to release trapped air which will mar the finished surface. After a few minutes apply more plaster with a brush,

making sure to work it carefully to let air escape, then using a spoon, build up the plaster to the desired thickness, occasionally penetrating the plaster with the brush so as to strengthen the matrix. In order to be certain that the plaster has penetrated the details one can take the mould in your hand and strike it sharply against the table surface, this will not only let air escape but will also drive extra water to the surface whereupon it can be dabbed off. The mould has set hard enough when it does not give up any water under finger pressure; at this point remove the cardboard or canvas border.

Immediately after removing the border take a sharp knife and run it around the seam of the medal and the mould and trim off any excess or overflowed sulpher or plaster; failure to do so will make the releasing of the mould very difficult. To release the two pieces take one in each hand and gently pull it apart, if there is undue resistance overlap one's fingers on each side of the piece and stabilize your elbows on a table. Apply a light squeeze which should break the seal and release the mould from the medal or stone. If the procedure fails it is imperative to quickly clean off the medal or stone and repeat the entire procedure.

A few extra points to be made, the above explanation is for plain plaster, but is applicable for use with plaster mixed with alum, which can be left on the mould to set for six to ten hours depending on the season. Better results will be obtained with higher quality materials, oil, plaster, etc. and experience alone will be the best indication of the timing necessary. If one has a large number of medals or stones to make moulds from it is advisable to work in groups of 4 to 12 at the same time in order to economize on time and materials. Always be careful to clean brushes frequently so as to avoid the formation of lumps in the bristles. If working in large numbers and the plaster is setting too quickly add to it some drops of clear glue; if it takes too long spill some powdered plaster on the mould to absorb excess water. Finally take care to cover the drying moulds so that they are not damaged by dust or water.[75]

There is also a technique of hardening the plaster moulds with some kind of siccative or lithargized oil which will impart great strength to the small details and enable many good copies to be taken without fear of damaging the moulds.

The required ingredients are:
Linseed oil, 1 kg
clarified wax, 1.3 kg.
Finely powdered golden litharge(lead oxide), 2.5 kg.

To prepare the lithargized oil the following steps must be taken: put the litharge into a linen bag which is tied and then suspended in a vase. The linseed oil and wax are combined and then heated, the bag of litharge is immersed into the oil and then all are brought to a boil and then simmered

[75] Ibid Chapter XX pp. 289-297

for about two hours, being careful to stir the liquid to prevent it from scorching. During this time always remove any froth or scum which appears on the surface; when this is not a problem the mixture should be left to stand for some days until it is clear and bright. It should then be poured into clean bottles and carefully plugged; the older it becomes the better its properties.

To treat the moulds the following steps are recommended: Place a quantity of oil into a large shallow ceramic vessel and heat the oil to just below boiling . Place the moulds to be treated on a grill of small enough mesh so that the pieces do not fall through; the grill should also have feet of about 10mm to prevent the moulds from touching the bottom of the vase. The moulds should be heated to about 80° C separately from the oil; this will not affect the strength of the plaster but will aid the absorption of the oil. From this point the moulds should be immersed in the oil until they are saturated; then pass the moulds near a heat source to assure penetration of the oil. Repeat this action until all the moulds are saturated. This can also be achieved by brushing the moulds with oil but it is a lengthy and time consuming process; it may also ruin the detail of the mould. Once the moulds are saturated it is important to remove any excess oil on the surface, which can also ruin detail. This is best achieved by evaporating the oil by holding the base of the mould over a heat source until the surface oil disappears. The last thing is to properly dry the moulds near a flame or in the sun, being careful to guard against dust.

A few points to remember about the lithargized moulds; sometimes the heat of sulpher will drive oil to the surface and will darken the cast. It is best to treat this cast as a cleaning test; wait for the excess oil to be reabsorbed by the plaster before casting again.

There is also an alternative siccative mixture that is cheaper and quicker than the other method. Also known as a painters 'fat oil' it is composed of the following:

Linseed oil 1 kg.	
Litharge	60 grams.
Cerise calcinade	60 grams.
Terre d'ombre and talc	60 grams.

Bring all the ingredients to the boil and then simmer for two hours, being careful to remove any foam and scum. Then cool and bottle and cap in order to prevent the evaporation of the oil.

The advantage to this is that a small quantity very expeditiously saturates the plaster and renders it waterproof while not altering the size or details of the mould. The application procedure is almost the same: heat the moulds on a metal sheet over a soft flame to not more than 90° C. Remove the moulds and carefully place a single drop of oil on the moulds, heat them again and repeat the process until oil remains on the surface, dab this away

with a clean cotton swab, then allow to cool and dry in a dust protected area.[76]

Some general notations from the chapter are as follows: the mould will sometimes change colour or take on veining similar to marble; this is curious but not a concern. Although treated, it is still necessary when making copies in plaster or sulpher to apply a thin layer of olive oil. In the case of sulpher it may still bring oil to the surface; this should be wiped away and the mould left to sit for several days before being used again.[77]

It is possible to make moulds in sulpher but a few separate considerations and precautions must be taken. First, if making a mould from a medal the heat and corrosive properties of sulpher can damage the medal irreparably, and sulpher although giving very sharp detail can be brittle and it is recommended that several master copies of the medal or stone be made in plaster in case the sulpher mould is damaged.

> When sulpher is to be used to make moulds, it would be better to let it 'cook' until it has obtained the consistency of molasses, then let it chill before pouring it. This makes the sulpher much more brittle. In order to make it less fragile, a quarter of charcoal could be mixed in the sulpher which is to be used for moulds, after first pouring it through a silk sieve. Trees which provide lighter woods , such as poplar, aspen or willow, mix better with the sulpher and leave no deposit.
>
> We have tried to mix coal, slate and brick with sulpher, crushed and sieved until very fine; but all these substances are far from giving the hardness it requires when it is mixed with iron, as we will show later.
>
> If, when the sulpher is melted, it continues to be heated away from air contact, and cold water is added to it in order to harden it, it takes on a red hyacinth colour; it therefore becomes as strong as wax, and can be used to take prints of engraved stones; these will harden considerably more when chilled.
>
> Pure sulpher, because of its great fragility, is not really suitable to make moulds which could stand repeated handling or regular use, but if it is mixed carefully with very finely powdered materials which combine with it (but without any chemical combination) it acquires a hardness which makes it resistant to any friction. The more dense the powder, the better it

76 Ibid Chapter XXIII pp. 317-8
77 Ibid Chapter XXIII pp. 315-320

combines with the sulpher without affecting its fusibility.[78]

When moulding and casting in sulpher it is recommended that this be done at the lowest possible temperature and a vase of water is kept nearby to cool the medal or stone so as not to overheat the material and enable the sulpher to detach more easily. It is important to follow all the same cleaning steps as mentioned previously, also be sure to lubricate the mould after each casting. As soon as the sulpher crystallizes the cardboard border should be removed and the mould removed from the stone or medal to prevent it from bonding together.

Although possible to make a mould completely in sulpher it is not recommended. For reasons of economy and strength the best approach is to pour a thin layer of golden sulpher, about 3mm, over the desired details and then pour in at least 9mm of weak plaster. Weak, slower setting plaster is important because it will not expand so vigorously and shatter the sulpher. The plaster should take about one hour to set. This also has the advantage of protecting the sulpher and it will strengthen the mould entirely. This is particularly important when casting objects of a large dimension as pure sulpher moulds are particularly subject to breaking under the pressure of plaster alone. Finally, one should take a weak plaster cast of the mould's surface so as to have a protective cap for when the mould is not being used. This will enable the moulder to stack them and prevent dust from contaminating the surface.[79]

A method of melting the sulpher and of giving it different colours is to break the sulpher into nut sized pieces in order to melt it more easily; put them preferably into a newly varnished earthenware bowl (or a melting bowl or an iron pan) over a low heat (kept low by spreading ashes on top), or even in a sand bath, depending on the needs of the particular operation. Slowly melt the sulpher, stirring regularly in order to speed up the melting and to prevent the surface hardening. Sulpher melts at a temperature of 104 degrees centigrade.[80]

While the sulphur is liquefying, prepare the moulds. As these to be used are not hardened with lithargized oil (containing lead oxide), they cannot be oiled, as the oil would saturate the plaster, and when casting the sulpher it would attach itself to the moulds and ruin them. This is therefore how the moulds should be prepared:

Place 4 or 5 (at the most) on a plate with pure water on, but not so much that it covers the surface of the moulds. Let them absorb the water until a cream like film can be seen on their surface. They are then ready to receive the

78 Ibid p.301

79 Ibid Chapter XXIV pp. 321-328

80 Ibid pp.299-300

sulpher.

By carefully watching the rate of water absorption of the plaster, the moment when the mould is sufficiently moistened is easily determined. After a few seconds immersion, the humidity will already have soaked into the edges of the mould, which is shown in a change in the colour of the plaster, whereas the centre and those parts most in relief keep their original colour. Imperceptibly, the water soaks into all the other parts, not yet penetrated, and it is when this absorption is complete and the colour of the mould is uniform that it can be taken out of the water. Leave it away from the water, on the edge of the plate, until you are in a position to colour the sulpher. If too damp, the cast would lose its consistency and detach into smaller pieces; if not damp enough, it would stick to the sulpher, and the model would be completely ruined. In order to avoid over-soaking the mould, it would be better to soak two or three at a time. If you lose time with this method, you gain it by making perfect models, which would rarely need to be recast. So that the sulpher is of a suitable heat to be cast, it must harden at approximately 5mm of depth, only a few seconds after it has been poured into the mould, which can be verified after a few attempts.

An unchanging rule is that the cooler the sulpher, the more chances there are of obtaining a perfect result. Sulpher is always hot enough to pour into the mould when it is just remaining liquid. One infallible way of never casting at too high a temperature is to wait, once the sulpher has been removed from the heat, for the moment when a form of crystallization takes place on the surface, forming a thin crust.

When the sulpher is of the right temperature, wrap a strip of card or strong paper which has been soaked in lithargized oil around one of the smaller moulds, so that there is no need to secure it with a piece of string. Hold the mould between the thumb and first finger of the left hand, in which is held the strip of card; take care to move the other moulds away, so as not to burn yourself when spreading the sulpher. Take, in a spoon of thin iron, oiled so that the sulpher does not stick to it, the necessary quantity to give the right depth to the cast. Pour the sulpher in one dose only, making sure that the mould is covered quickly. If not, the cast would have little lines all over it, which would look as though it were cracked.(See fig. 15) Care must be taken to ensure that the substance doesn't stay at the edge of the mould, as if the edges were covered first, this would inevitably cause a flaw which would mean returning the sulpher to the melting pot. The sulpher should therefore be poured into the centre of the cast, and over the most prominent part of the cast. Almost immediately, stand the mould on a table or similar flat surface, so that the cast retains an equal depth throughout, without the strip of card becoming detached.

Next cast the moulds which have been prepared with water, then lift the casts out, which should come out easily. The first one to be made should

always be returned to the melting pot, because it is never good (or at least hardly ever) often because there will be dust in the moulds which will be removed after the first plaster cast is removed. The first casting therefore becomes the process of preparing the moulds.

Proceed in the same way the second time, without wetting the moulds; but if several copies of the same casts are wasted, it is necessary, especially if the moulds are in plaster of Paris, to soak them again in water. Do not leave them in the water, however, as the sulpher could attach itself to the mould on the third casting, thereby ruining the whole process. Then continue to cast the other moulds, preparing them as for the first, and remove the casts, again beginning with the first to be done.

If there are droplets of water to be found on the surface of the mould, which can often happen when the mould has just been removed or when it has been left for too long in the water, let the water run into the plaster, which should happen fairly quickly, or even blow on the mould so that the water moves away from the edges. Never make a cast in the moulds with water in them.

When casting sulpher, whether it be on hardened plaster oiled with lithargized oil, on pure plaster or onto metal, if the cast is large and has a large amount of raised/embossed properties, always take care to pour enough sulpher to cover the base of the mould in one attempt, shaking with the hand in order to help it spread quickly and evenly. The sulpher must then be poured back into the pot almost immediately, in such a way that only a thin layer remains in the mould. Otherwise, there is a chance that it would become attached to the plaster. It would be better, in order to avoid losing the mould, to cast 2, 3, 4, or even 5 times, until the desired thickness is finally reached. While making the casts, cut that section of sulpher which goes over the edge of the mould and which can be seen over the cardboard strip around it, in order to keep the underside level. If this is not done soon, it becomes more difficult to do properly and could even result in the casts being broken. Leave the moulds to dry.[81]

Into a mould is poured the sulpher or the combination of sulpher and other substances, as will be explained in the following. Here are the combinations which have the best results:
This first combination gives a red colour. (see fig. 13)

1- Sulpher 25 parts
Powdered quartz 15 parts
Vermilion 4 parts

2 Same mixture, but replace vermilion with chrome oxide; this is a green.
3 Equal parts of sulpher and of manganese peroxide; semi-metallic dark grey.
4 This makes a chocolate brown shade:
Sulpher 14 parts

[81] Ibid Chapter XXII, pp.308-313

Manganese Peroxide	7 parts
Fine Smalt	5 parts
Vermilion	2 parts

Preparations of a combination of bright red with equal parts of sulpher and vermilion give the appearance of coins. This mixture, finely crushed and sieved, is spread in a very thin and irregular layer onto the pewter leaf, which is placed on a copper plate; melt the mixture over a low heat and, after chilling, pour in the formula of method no 2, (for green) over the moulded object, which then looks like bloodstone or heliotrope. It is also possible to combine sulpher with litharge (lead oxide) pyrites, mosaic of gold (disulphide of tin), etc..

It is worth noting here that if one wants to cast a large number of pieces of the same colour, it is necessary to melt the sulpher in the same proportions for each of the melting processes. It is always preferable to divide each cast into several parts which are poured, while still mixing, onto oiled leaves of tin ,whose edges have been turned up to hold in the substance. Next, all combinations are mixed well together and will make one substance which, when melted for moulding, will give exactly the same colour.

Another observation which can be applied to all combinations, even the previous one, is that it is usually only at the end of the day that the melted sulpher takes on the colour that it will retain; it is impossible to see if the desired shade will be obtained at the moment of melting. In order to do this, take a piece of white paper, and with a small piece of wood or a match which one dips in the melting pot, draw a line of the sulpher on the paper, which will give the future shade after a few minutes. When melting the sulpher for a second time in the same pot, draw a similar line with a match just next to that which was made in the first melting process, until the required shade is obtained.

Green: This is the combination which, from the beginning to the end of the casting, gives the most even shade. (see fig. 16) Simply take:

Gold sulpher or fine lemon yellow	1 kg
Prussian blue, very finely crushed	30 g

Mix the blue with the sulpher, which must only have the necessary degree of heat in order to cast it. The more blue one adds, the darker the shade becomes.

Red: In order to obtain this , take:

Yellow sulpher	1kg
Vermilion	30g

Mix well over a low heat, stirring constantly, even when pouring it over the tin plates. When making the casts stir the mixture every time because the

vermilion is much heavier than the sulpher and tends to always settle at the bottom of the pot. The deepness of the red can be altered by adding more vermilion or more sulpher for a paler shade.

Black: (see fig. 16) This colour is obtained by mixing the sulpher approximately a quarter of its volume in white wood charcoal. Remember that charcoal coming from lighter wood is preferable. But this is not added immediately after the sulpher has melted. First, heat the sulpher over a strong heat so that it loses its liquidity and becomes sticky. Ignite the sulpher, taking care to place the pot under the chimney or outside, and leave the flame to reduce the sulpher by a quarter. Extinguish the flame, covering the pot with a damp cloth or a cover.

When the sulpher starts to become liquid again, gradually add the powdered charcoal, mixing constantly so that it combines properly. If one were to add this to burning sulpher, it would become ashes and add only a grey colour to the substance. Return the pot to the heat, continuing to stir until the combination is complete and the sulpher mixture has stopped swelling and no longer has a layer of dross. Return them to a very low heat.

Next, check the deepness of the shade, making it deeper if necessary by adding charcoal, or weaker by adding sulpher, taking care to mix thoroughly. The proportions of a quarter of the total volume of sulpher and three quarters of charcoal results in a colour not of black but of dark grey, which can easily be made black by using graphite.

Care must be taken not to use lamp black instead of coal black. Instead of making the sulpher more solid, it makes it extremely fragile, to such an extent that the casts shatter and cannot be freed without breaking them from the mould; whereas sulpher mixed with the coal will cut as easily as soap, even an hour after the casting has taken place, which makes the whole process of making casts far easier.

Bronze or brown: (see fig. 17) Take:

Burned sulpher	3 parts
Fine charcoal passed through a silk sieve	1/2 parts
Green ash or red chalk, also sieved	1/2 parts
or:	
Burned sulpher	3 parts
Bistre (blackish brown) or red-brown, finely ground and sieved	1 part

Mix the same as for black, and cast on oiled tin plaques.
Because of the sulpher being as liquid as water, and because of the mineral glass and the chalk being far heavier than the sulpher, the result is that a large part of the colours will sink to the bottom of the pot, because they are not combined closely enough with the sulpher. In order to avoid this, take care to stir the mixture each time a cast is made, ensuring that the shade is

even from the beginning to the end of the process, which is not easy.

> To use successfully the coloured sulpher, have a second pot of non-coloured sulpher ready when the casts are made. First pour over the mould enough coloured sulpher to make the piece, then, one or two seconds later, return the mixture to the pot, so that only a thin layer remains on the mould. Pour the sulpher from the second pot into the mould without removing the first coloured layer, using the lower quality sulpher which will be sold more cheaply than the gold sulpher or the ordinary pieces of sulpher. These pieces are as good as the others when the waste has been removed by skimming the sulpher (when melted) if this waste is heavier than the sulpher, or by allowing it to settle, if it is lighter.
>
> Other colours can be obtained than those previously mentioned, by simply using different combinations, but yellow, green, black, and bronze are only rarely used.[82]

The following is a method of copying two coloured cameos whose raised section is of one colour and whose flat section is of another. It is recommended that this process should only be used for those figures with a large raised section, and which are large enough that the two parts can be separated from one another without too much difficulty.(see fig. 18)

Cast the piece; making sure that the depth is enough that the mould can be removed. The base of the cast is then removed with a penknife or a similar cutting tool, taking great care not to touch the section in relief, and to let nothing remain in the bottom of the mould, which would cause there to be an ugly coloured pattern on the cast. When this is complete, replace the raised section in the mould, which is dampened as necessary, and then cast a different colour from that of the previous one. The colours can be varied according to personal taste, giving the raised figures a deeper shade and the backgrounds a lighter one, and vice versa. But to succeed, it is essential to cut these figures as soon as possible, and to melt the base without delay, to avoid the figures breaking or the shrinking of the sulpher as it cools; this would prevent the figure from joining properly to the section in the mould.[83]

It is also possible to render impressions in coloured plaster, although those

82 Ibid Chapter XXI pp. 299-315

83 Ibid Chapter XXII pp.313-14

without any colour are always the most beautiful as they make it possible to appreciate the subtleness of the work due to the different shadow play across their face. However, when not under glass they are at risk of damage by rubbing on hands, as people not familiar with the handling of the casts invariably turn them over in the palm rather than hold them by their paper edge. It is for this reason that many people prefer the sulpher impressions, as there is not the risk of damage from casual rubbing. It is possible to toughen the coloured or plain plaster.

For impressions smaller than 80mm a red/brown or bronze colour is preferable as it can be buffed to give a very high sheen. It is easiest to grind the pigments before mixing the plaster. One popular colour favoured in Italy is the yellow/brown[84] obtained by mixing to the plaster a quarter or a third of its volume in yellow ochre. One can obtain a darker or lighter shade by varying the quantity of pigment.

The other popular colour is the so called red-brown; a mixture of Brazil wood or Pernambuoc gives a beautiful colour, which should be freshly ground and in a ratio of one eighth the volume of plaster (see fig. 19). First, the red should be dissolved in a small quantity of water, and then slowly add the red to white plaster until the desired shade and consistency is achieved. If casting large pieces it may be useful to apply a light layer of coloured plaster then complete the job with regular white plaster. This mixture of red in the above proportion will deliver a light brown or flesh coloured plaster that will colour a bright tan if rubbed with graphite and then polished. The red colour can also be applied by dipping the finished white cast in a solution of red/brown.

Other colours can be obtained by adding Prussian blue to the dry plaster. Black can be had from a variety of sources such as soot, grapevine soot, or ivory soot mixed at one tenth the volume of plaster. A simple means of giving the plaster a black colour is to quickly dip the casts in good quality ink once they have dried (see fig. 1), or brush the ink on with a badger hair brush. A dip will produce a grey colour which can be polished blacker with graphite

To preserve a brilliant white polish on the casts the following methods are recommended: when they are dry immerse them for thirty seconds in a solution of strong Flanders glue heated not quite to the boiling point; stearic acid is also effective either dipped or sponged on. When they are cool they should be rubbed with silk paper. In place of strong glue a hot solution of *gomme arabique* can be applied. Next gently brush heated milk over the casts, using a badger hair brush. Fish glue will also give a strong finish. An experienced moulder could also apply varnish in thin coats with a brush known as a 'cod's tail'. All these operations need to be done in a dust-and

84 Ibid. Referred to as nankin in the text, which translates as Nanking, a Chinese yellow brown or light tan shade.

> humidity-free area. Lastly, one can make two coloured plaster casts by using the same method described for casting cameos in sulpher.[85]

Glass paste: The last commonly occurring material from which collections of *impronte* were made is glass, most often referred to as paste in English and in Italian 'pasta vitrea', which can cause some confusion as strictly speaking it is not a paste such as is used to describe a mixture of solids with a liquid, ie. toothpaste, or as in *Pate de Verre,* which is ground glass mixed with water and a binding agent which is then sintered (heated and coalesced into a mass without pressure or liquefaction).[86] The term paste in this context is gemological and describes a high lead glass which could be coloured or clear, and is most usually recognized today as costume jewelry.[87] To further obfuscate matters James Tassie referred to his glass paste as *Enamel composition*[88] but it is not an enamel as recognized by modern artisans.

The glass paste produced since the Renaissance is markedly different from that manufactured by the ancient Greeks and Romans in one significant manner. Ancient paste contained no lead, or only trace amounts, thereby making it extremely hard.

> Gemmae fictitiae or vitreae, were made by the Greeks and Romans with very great skill. The material of which they were composed was a pure, hard glass, without any admixture of lead – what is now called 'flint glass', a pure alkaline silicate with the addition of lime. Roman pastes usually contain, in 100 parts, about 70 of silica, 18 of soda, 8 of lime, 2 of alumina, and small quantities of metallic oxides, to which the colour is due. Modern pastes are usually made with nearly 50 percent of oxide of lead; and they are therefore much softer and more liable to decomposition than the old ones. A fragment of an antique paste will scratch a modern one, as easily as rock crystal will scratch flint glass.[89]

In contrast to these formulae, during the 18th century when Tassie was

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85 Ibid Chapter xxv pp. 329-31

86 Smith, John P.,*James Tassie 1735-1799 Modeller in glass: A classical approach* (Mallet, London. 1995) p.6

87 Ibid p.7

88 Raspe, R.E., *A descriptive Catalogue....* (London, 1791) p.lx

89 Middleton, J.Henry.,*Ancient Gems: The Engraved Gems of Classical Times* (Cambridge University Press, 1891) p.153

producing his works a great deal was made of the secret and unique nature of his recipe,[90] but it was not in reality a mixture much different from other contemporary glassmaking techniques, mainly, this hyperbole was what would nowadays be called marketing hype in order to generate interest in a special product. In 1894 the Curator of the Tassie Collection at the Scottish National Portrait Gallery, John M. Gray had a sample of Tassie glass analyzed and the composition was determined to be as follows

Silica (SiO_2)	49.26
Oxide of Lead (PbO)	33.54
Ferric and aluminum Oxide (Fe_2O_3 and Al_2O_3)	0.50
Lime (CaO)	2.17
Arsenicous Anhydride (As_2O_3)	3.08
Oxide of Potassium (K_2O)	10.40
Oxide of Sodium (Na_2O)	0.88
	99.83

It is very easily fusible glass, essentially a lead potash glass. Arsenic is often added to lead glass to prevent darkening by reduction of the oxide of lead.[91]

The practice of making intaglio or cameo copies of gems in paste languished for centuries, but along with other artistic pursuits it was 'rediscovered' by the Italians during the Renaissance.[92] This technique of employing glass is the precursor to the use of plaster and sulpher as materials for making impressions. The earliest known accounts of this practice are from the period around the turn of the eighteenth century by a Frenchmen, Guillaume Homberg, employed by the Duc d'Orleans to copy the royal collection, in a laboratory established in the Palais Royale for this purpose.[93] Homberg was a chemist and described his techniques in a treatise entitled *Maniere de copier sur le Verre colore les Pierres Gravees* in

90 Raspe, *A Descriptive Catalogue....* See the introductory essay to the catalogue of the Tassie collection.

91 Smith, *James Tassie...* as reprinted verbatim from Gray, John M. *James and William Tassie, a biographical and critical sketch with a catalogue of their portrait medallions of modern personages* (1894)

92 King, C.W. *Antique Gems: Their Origins, Uses, and Value* (John Murray, London 1860) p.75

93 ibid p.75

the *Memoires de l'Academie Royale des Sciences, Annee 1712, Paris 1714* .[94] In later years Homberg instructed two others in his techniques a Mr. Clachant and Mdme. Falloix,[95] (who is mentioned by Raspe in his introduction to Tassie's collection as Mdme. Felloix[96]) suggesting that Tassie's techniques were derived directly from Homberg's as well as from the tutelage of Dr. Quin of Dublin, whom Tassie credits as his mentor. Dr. Quin's biographical details are sketchy but he was well travelled and having completed an MD at Padua sometime before 1748,[97] he may well have read Homberg's work or he may have been exposed to Italian craftsmen employing the techniques of the ancient Romans. Padua is also near to Cessena where G.A. Aldini was observing these and other techniques prior to 1785. The Italians may perhaps have inspired Homberg or there may have been unrelated independent artistic developments, as glass work was, of course, widespread. But considering that Italy was to be the locus for the revival of gem engraving, as well as copying in various materials and outright faking, this connection is not an implausible one, despite no clear trail of evidence linking events.

The casting of glass required somewhat more skill than that using other materials on account of the higher heat, more volatile, fickle and unforgiving nature of glass. King [98] describes the process in the following manner

> A small iron case of the required size is filled with fine tripoli mixed with pipe clay, and moistened, on the surface of which an impression is made of the gem to be copied . This matrix is next carefully dried, and a piece of glass of the proper colour is placed upon it. If a stone composed of various strata is to be imitated, the proper number of layers of coloured glass are piled upon each other. The whole is then carefully placed in a furnace and watched until the glass begins to melt, when it is closely pressed down upon the mould by means of a flat iron, coated with French chalk in order to prevent the glass from adhering to it. It is then taken out of the furnace and cooled gradually, when the glass will be found to have recieved an exact hollow

94 Smith,*James Tassie...* p.10

95 King, *Antique Gems...* p.76

96 Raspe, *A Descriptive Catalogue* ...p. lv

97 Smith, *James Tassie...*p.9

98 Bearing in mind that King's description was written around 1860 well after techniques had been established, but these techniques once established seldom varied so it is likely that what he describes is accurate for both ancient and modern varieties of paste copies.

> impression of the design first made in relief upon the tripoli...This was, doubtless, the method followed by the ancients, except that they used a coarser material for their moulds, perhaps those terracotta impressions of intagli hereafter to be noticed, for antique pastes have a much rougher surface than modern, and are full of air bubbles.[99]

The use of tripoli (Diotomaceous earth)[100] is briefly mentioned by Aldini, which suggests that Italian makers employed similar methods as Tassie and others. Homberg's technique called for a mixture of red and yellow tripoli which was moistened until the consistency of a breadcrumb, which was then pressed into a crucible, dusted with a bit more red tripoli and the master gem pressed into the concoction which was then allowed to dry before being used.[101] Tassie apparently used plaster of Paris with his tripoli, which would make for a smoother and more durable mould.[102]

Tassie glass was very fashionable and is today still highly valuable and collectible, although the material is not often encountered in major museum collections (the Scottish National Portrait Gallery and the Hermitage having the most comprehensive collections). Most likely because of the higher cost involved in acquiring glass when they were new-made, these were not affordable in the same numbers as the cheaper sulpher and plaster varieties; they have also remained cherished heirlooms. Another major factor is that the skill required to cast glass would have discouraged many from attempting this style of cast. This more difficult process of manufacture affected cost, and in fact even Tassie complained that "because of a very high failure rate in the furnace, his portraits were nearly uneconomic"[103] Doubtless the same considerations would have deterred Italian makers: Bartolomeo Paoletti's commission for the Grand Duke of Tuscany and the collection in the Museo di Roma are the only known glass *impronte* by

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99 King, *Antique Gems...* p. 72

100 Also known as Infusorial earth, diatomite and celite. The chemical formula SiO_2 and is a hydrous or opalescent form of silica which is composed of the skeletal remains, in fact tiny fossils, of very minute aquatic organisms known as diatoms or radiolaria. Deposits are commonly found all over the world. They are of light weight, light colour, finely granular and porous aggregate. They are inert and act as a fine filtering agent or as filler material. See Gettens p.111

101 Smith, *James Tassie...* p.22

102 Ibid p.22

103 Ibid... p.7

Chapter 2
Italian makers.

PRACTICAL EXPERIMENTS

In September 1996 after spending three months cataloguing and assessing the environmental stability of the Ashmolean *impronte* collection, I became curious about the mechanical process of casting in sulpher. Using the steps outlined in Chapter XXI of Encyclopediae-Roret, I undertook, with Mr. Daniel Bone, the Cast Gallery Conservation Officer, a few basic experiments in casting sulpher. We did not attempt any in plaster, as the properties and techniques of working in plaster are well known. We elected to make a cast in sulpher on an unlithargized mould. Rather than make a mould in plaster, Mr. Bone prepared a mould in silicone rubber which has all the same properties of plaster but is cleaner and quicker to work with.[104] We also elected not to attempt to colour the sulpher.

The three silicon rubber moulds were soaked in water for about twenty minutes until a milky surface paste appeared. In the instructions this condition was indicated as a precondition to pouring molten sulpher into the mould, otherwise the sulpher would bond with the mould. The moulds were then transferred to a tray which had some putty prepared to act as a cradle for the mould, and a border of cardboard was erected to prevent the sulpher from spilling over.

Working in a well ventilated area with a hot plate rather than a flame we put approximately 200 grams of powdered sulpher into an aluminum pot and applied heat. The sulpher displayed no change in condition until it reached its melting point, upon which it very rapidly liquefied.

The first mould received the sulpher without problem, the sulpher set very rapidly and after about ten seconds it was removed from the mould. The detail was apparent but not very sharp (see fig. 20). As the mould was still viscous we poured another portion of sulpher, which after the same length of time gave up a very clear impression. A third try at the same mould failed and the sulpher bonded with the mould (see fig. 21). We assessed that the amount of water

104 Benner-Larsen, Erling., *Moulding and Casting of Museum objects using silicone rubber and epoxy resin.* (Konservatorskolen Det Kongelge Danske Kunstakademi,1981) pp.15 and 41.

driven off in the first two pourings was sufficient to prevent a good release layer from being formed in the third attempt.

As can be seen in the photographs the raw uncoloured sulpher did in fact render a very accurate impression of the moulded object (see fig. 22). The total length of our experimentation was only about forty-five minutes, but we both concurred that with a little more practice and experimentation with the procedures outlined in the manual this would be a very simple process to master and would lend itself well to cheap mass produced reproductions of small items. The only drawback was the extreme acridness of the sulpher and the very obnoxious and uncomfortable working environment it produced; any future attempts would be aided by the use of a mask and eye goggles would also be strongly recommended.

CONCLUSIONS

Some conclusions can now be drawn on the materials and techniques employed by the Roman artisans making *impronte*. Concerning the plaster materials: according to the eighteenth century accounts scagliola would be an admirably suited material; it is cheap, easily prepared and worked and it delivers a versatile finished surface. Various gesso or plaster of Paris concoctions are also suitable, on account of their abundance and known properties. The Pozzolanic plasters are unlikely to have been widely employed, but they do occur (see fig. 23) as they tend to be used for construction purposes.[105] Although lime putty would produce very fine casts it was not likely to have been used for this activity on account of its high value in other applications. However, if a customer had been willing to pay, it might have been used. Lime plaster was less suitable because of its time consuming and caustic preparation. Unfortunately, there is no sure way of verifying the material in each set encountered as it would be impracticable and expensive to conduct analytical tests of each white cast, but knowing the more common manufacturing techniques and materials the character of each set can be deduced with some measure of certainty. This problem of a diverse use of material is illustrated in an order, dated December 7, 1826, for some gems by

105 But it is encountered. In the Glenbow Museum, Calgary Canada there are a pair of bracelets with inset impronte made from pozzolinic plaster which were purchased from an antique shop in Naples during the 1950s. Accession numbers R.35.7 and R.35.8. See fig.23

Pestrini requesting "...incisi in conchiglia dal sud. o Pestrini e calcati in scajola, in zolfo, gesso e in altre maniere, divisi in quattro spartiti,...Data in Roma in Camera Apostilica li 7 Dicembre 1826, Il Card. Galleffi Camerlengo di S.R.C."[106] And there is a description on the cover of a manuscript catalogue by Paoletti which describes a set of *impronte* as being *Di numero 302 impronte in Stucco...*, (see fig. 24) which clearly demonstrates that there was no conventional use of these materials and choice was up to the client or the craftsman. In some cases this is not a bothersome concern; at the British Museum the lab reports contained in file 5325, BMRL 24605U, 15 Sept., 1985, merely confirm that the casts are plaster. No further information is contained. Ultimately these concerns are only relevant if one is considering any conservation work on a set of casts, as each different style of plaster raises its own set of different considerations. This will be discussed below. The making of sulpher casts is more straightforward and there is very little variance in the manner of production and the types of materials employed. The only area where any possible doubt may arise concerning sulpher is in the selection of pigment mixed into sulpher pastes. Again, the only sure way of identifying the pigment used is to conduct scientific analysis. But using known recipes and the types of pigments generally selected, conclusions concerning the composition of the sulpher *impronte* can be reached, without resorting to lab work, with a high degree of certainty.

CONSERVATION ISSUES

One problem that was continually encountered while working with the Ashmolean collection of *impronte* was the generally poor physical condition of both the casts and their respective containers. While under no immediate threat of further deterioration many sets are in need of some remedial attention. In order to categorize systematically the nature of the damage and requisite attention needed a 'conservation condition survey' was conducted by the author under the supervision of Mr. Daniel Bone. The survey covered the following points:

Box number: the accession number or set number as per the collection catalogue.

106 Stefanelli, Pirzio Biroli-Lucia., *Camillo e Clemente Pestrini Incisori in Pietre Dure, e Professori in Tenero.* in Antologia Di Belle Arti: Studi sul Neoclassicismo (Umberto Allemandi and C. 1990) pp. 48-9

Brief description: A few identifying words, eg. 10 stacking trays.
Dirt: 1.Heavily soiled obscuring detail, 2. Some dirt visible, 3. Clean.
Mould: 1. Severely affected and obscured by mould, 2. Signs of mould, 3. Clean.
Abrasion: 1. Severe or threat of loss of detail, 2. Some loss of detail, 3. No loss.
Storage: 1. Threat to casts, 2. Some work needed on storage, 3. Satisfactory.
Cracks: 1.Severely cracked/danger of loss or damage, 2. Some cracks, 3. No cracks.
Other: Any other serious factor affecting the casts not covered by the above categories, briefly elaborated on in 'comments' section.
Comments: Explanation of 'other' such as observations of insect infestation, damage caused by past conservation attempts or similar such things.
Material: eg. Plaster, Sulpher, wax, shellac, etc.
Conservation: 1. Urgent attention needed, 2. Some attention needed, 3. Stable.
Initial and date of Survey: Month and year. (See Appendix D for sample page.)

The general result of the survey was that of the sets of the 178 sets of *impronte* relevant to this work 26 were category '1' needing urgent attention-14% of the total; 141 were category '2' needing some attention-75% of the total; and 11 were category '3' needing no attention-11% of the total. (The overall total is higher than the 135 sets quoted in the previous chapter because each sub group was given its own evaluation; so for example, set 28 was counted as one unit in the catalogue but as 28a, 28b, 28c in the condition survey.)

There are a number of differing factors which pose a threat to the integrity of sets of *impronte*. The largest problem is surface dirt which has accumulated through years of display and storage in poor locations, but other significant difficulties are presented by water, light, insect infestation, moulds and fungi, and light. However only general observations can be made here as each situation poses its own unique combination of problems.

As mentioned before, dirt is the most common problem, and sets of *impronte* seem to have a remarkable affinity for attracting large and unsightly quantities of surface dirt. Typically this is composed of dust, soot, lint from packing materials such as raw wool (the natural oils of which also stain the surface of *impronte* and cause dust to cling tightly, see fig 25), dust collected by cobwebs (see figs. 26 + 27), and wood dust either from cases or the trailings of woodworm (see fig. 28) or

possibly leather beetle infestation. A number of sets in the Ashmolean show signs of past infestation, but there were no indications of current insect activity. The 'woodworm' is the larvae of certain types of boring insects, usually beetles of the *Anobiidae, Lyctidae and Bostrichiade* families. These favour a variety of hard and softwoods – pine, beech and walnut in particular – but mahogany and oak are virtually immune from attack.[107] The sources of infestation are many and need to be assessed as encountered. Generally, if temperature is kept below 10-15°C and humidity below 60%RH the likelihood of infestation is drastically reduced. However, areas of localized fluctuations in humidity or sources of food can result in rapid episodes of insect or mould development.[108] Recent advances in insect eradication would be admirably suited to *impronte,* in particular the suffocation of larvae through the removal of oxygen to a level of concentration below 0.1% has proven very effective in a range of applications and would work well in these instances.[109]

Water, in its liquid or gaseous state presents another threat to sets of *impronte.* In numerous sets there was evidence of water damage such as warping of wooden trays, the blistering of backing paper, the swelling of paper borders surrounding casts, and the growth of mould and fungus (see fig. 29). Once this type of damage has occurred there is little possibility of restoration to original condition. A consequence of high humidity or exposure to water is that the chance of mould or fungal infestation is very high. This was a problem encountered with the Ashmolean collection as many sets showed signs of past mould activity and in one instance it was particularly vigorous. (see fig. 30) While the basic materials of *impronte,* sulpher and plaster, are impervious to biological infestation, pure plaster is seldom encountered. Usually plaster has been mixed with some kind of organic retarder, binding agent or surface coating such as shellac or milk – all of which are susceptible to attack. Other materials like paper, wood and glue in the sets are all candidates for infestation. In the following case the border material

107 Smith, Nancy A., *Old Furniture: Understanding the Craftsman's Art* (Dover Books, New York 1991) pp.132-3

108 Child, Robert E. and Pinniger, David B., *Insect Pest Control in U.K. Museums* (University of London Jubilee Conservation Conference papers.) pp.303-306

109 Bailey, Martin, 'Kill that Bug' *The Art Newspaper* (March 1997) and : Daniel, Vinod et al, 'The Use of Nitrogen Anoxia to Eradicate Museum Insect Pests' *IIC: Preventive Conservation Practice, Theory and Research* (Summaries of the Ottawa Congress, 12-16 September 1994) no page number.

was the root of the infestation. A sample of the contamination (see fig. 30) was submitted for analysis to the Canadian Conservation Institute and the following results were reported:

> Method of Examination: A sample of the accretion was analyzed by Fourier transform infrared (FTIR) spectroscopy using a diamond anvil microsample cell. A sample was also examined using incident light, transmitted light and fluorescence microscopy. A fluorescent mycology stain for fungi from Polysciences Inc., *Fungi-Fluor*, was applied to a fragment of the accretion and the fluorescence of the stained material was observed using a mercury vapour lamp with a blue exciter filter.
>
> Results: Using FTIR spectroscopy, the white accretion was found to contain protein and probably carbohydrate, suggesting that it is biological in origin.
>
> Using incident light microscopy, masses of cottony, white growth, consistent with mycelial patches were observed. Using transmitted light and fluorescences microscopy, the sample was found to contain long, slender, segmented fibres which occasionally show branching. The appearance of these fibres is consistent with fungal hyphae, the vegetative form in mould growth. The sample also contained a multitude of rounded bodies which are consistent in size and appearance with fungal spores. The sample stained positive using *Fungi-Fluor,* causing a yellow-green fluorescence of the thin segment and cylindrical wall structures of the hyphal and spore like forms.
>
> Conclusion: The accretion on the sulpher paste cast replica is biological in origin; the white cottony growth was found to be a mould, composed of fungal hyphae and spores.[110]

This type of infestation is opportunistic as mould and fungal spores are ubiquitous and will readily and rapidly flourish as soon as optimal growing conditions have been reached. This is clearly what occurred at the Ashmolean. Once dormant the infestation should be cleaned in a filtered vacuum type chamber, or well away from other storage areas. The biggest problem is that spores are very easily disturbed and once airborne will continue to pose a recurring threat.

After water, light is perhaps the next most serious concern with *impronte.* As before, the raw materials of sulpher and plaster are immune to exposure to light – it is the other materials such as binding agents and pigments which react to

110 CCI Report *Analysis of a White Accretion on a Sulpher Paste Cast Replica* Analytical Research Laboratory Report ARL No. 3656, File No. 5030-1

exposure to light. Shellacs and other plaster coatings will discolour and in the case of sulpher, the vermilion pigment used to colour red *impronte* is peculiarly reactive to exposure to light.

As the vast majority of sulpher *impronte* are red it is worth detailing this situation a little more closely. Vermilion, either naturally mined or artificially created is simply red mercuric sulphide (HgS) and is also known as cinnabar, English or Chinese vermilion. It is prepared in two different ways, the wet (sublimation of mercury and sulpher) or dry (heated and combined with water and potash) process, but the end result is the same. It is an ancient pigment, and by and large a stable material with one exception. In certain conditions, usually when used pure or with water and tempera mediums and less so oils, it darkens when exposed to direct sunlight.[111] Unfortunately the exact reason and mechanism for this reaction is uncertain, although considerable research has been conducted on the matter.[112] But this effect is clearly noticeable on *impronte;* the collection of Lord Elgin has not seen the light of day for nearly 200 years and the *impronte* are a bright, almost waxy red (which often causes some confusion as to the material of *impronte,* cursory examination usually makes one decide they are made from wax, but the sulpher odour is very distinct. s ee fig 32) whereas those that have been exposed to light on display have darkened very noticeably (see fig. 31). There is no remedy for this condition.

RECOMMENDATIONS:

Although there are numerous types of conservation techniques which theoretically could be used to clean and rehabilitate collections of *impronte,* realistically most are impracticable. The simple reason is that any specific intervention pertaining strictly to one material in a set is almost without exception a threat to other important components. For example most techniques used to clean plaster involve quantities of water, which would completely ruin the cardboard borders of the casts, and potentially the backing paper as well. Any

111 Gettens and Stout, *Painting...*pp.170-3

112 Daniels, Vincent, 'The Blackening of Vermilion By Light' *Recent advances in the Conservation and Analysis of Artifacts* (Jubilee Conservation Conference Papers, University of London, Summer Schools Press) pp.280-282

work undertaken would have to be done *in situ* as *impronte* are glued to their cases. The other issue is that in the case of plaster the surface detail is very easily ruined even by the lightest of brushing and any attempt to remove embedded dirt will disfigure the *impronte*..(see fig. 33). The sulpher casts are much more robust and could more easily be cleaned; however in most cases the darkening is not dirt but vermilion darkening, so attempting to restore colour would be pointless. The only recommended course of intervention is to remove any surface dirt, mould, cobwebs etc., from cases with a vacuum, clean the surface of *impronte* with a very soft brush, and in some cases a dustless, artgum type of eraser will successfully remove dirt – but it will not clean crevices very well. A carpenter's tac cloth would also be effective for removing fine dust. A method employed with larger plaster busts which may prove effective is the application of a starch based poultice which is applied sparingly as a gelatinous paste to the cast surface, and as it dries it extracts embedded dirt and leaves a pristine surface, including folds and crevices etc. However it is not foolproof and depending on numerous factors such as the plaster composition, vagaries of the poultice, it is possible to damage the cast irreparably.[113] In some cases a slightly dirty surface enhanced the contrast of surface details and made the *impronte* easier to view and is a good argument against vigorous cleaning. Basically, whatever condition sets of *impronte* happen to be in is how they should remain, as anything but light remedial cleaning may prove to be too costly or damaging to the integrity of the sets. Perhaps the only exception to this might be any damage to the book style cases which could be repaired without affecting the internal portions. Ultimately any judgment is up to the curator and conservation officer, but in light of the tremendous variables involved in ascertaining proper technique and material it is a risky venture to attempt any involved cleaning of *impronte*.

[113] Kuniholm, Letter to Sir John Boardman concerning plaster cleaning techniques. March, 1979.

CHAPTER THREE:

Biographical Details of Known Makers of *Impronte*

Chapter 3

This chapter deals with the makers of *impronte* in Rome during the late 18th and early 19th century. Certain important and celebrated makers from other parts of Europe such as Tassie and Lippert will also be briefly mentioned. This list is by no means comprehensive but it does represent a collation of most significant information known about various individual makers represented in British collections. The basis for any conclusions and discussions of these items and their makers is primarily drawn from the collection at the Cast Gallery of The Ashmolean Museum, Oxford, which with 135 sets of *impronte,* including many thousands of loose *impronte,* is by far the single largest and most important collection of *impronte* certainly in the UK and most likely in the world. While other institutions have single or a few sets of these casts they provide supplementary evidence that merely supports the value of the collection in Oxford.

The main difficulty in studying the producers of *impronte* is their relative obscurity nowadays. In virtually all cases the makers were not celebrated artisans during this period – although such luminaries as Marchant and Burch produced their own *impronte* – but were generally second tier artists, skilled in their work but more accurately characterized as accomplished craftsmen. Furthermore, all evidence indicates that the carving of gemstones and the manufacture of *impronte* were not the only economic activities pursued by the Paolettis, Cades, etc., who also made mosaics, micromosaics, and dealt in fine art. They lived modest lives and in many cases their deaths marked the decline and end of the trade in *impronte.* In this respect it can be said that it is their legacy as businessmen/craftsmen that endures as opposed to their fame as artists. It is certain that other sets by as yet unidentified makers do exist and many more works by known makers languish in the libraries of country houses and universities.

AMASTINI

There is not much known about the Amastini family and their business and artistic pursuits. The senior Amastini, Angelo Antonio, was born in Fossombrone in 1754 and died sometime after 1816. The son, Niccolo Amastini

was born in Rome in 1780 and died in 1851.[1] There is some question as to whether or not the same family was responsible for numerous cameos that appear in various museum collections due to variance in the spelling of the name; it is very likely that the proper name is Mastini and the annotation that appears on the set of *impronte* is an unpunctuated A. (for Angelo) Mastini, Amastini. Gems with the signature of A.Mastini occur in the British museum, Amastini in the Kunsthistoriches Museum, Vienna[2] and A.T.AMSTINI in the Hermitage,[3] and other signatures in Greek letters are also known.[4] This simple mistake is also supported by a contemporary reference in Hienrich Keller's guide to the studios of Rome, *Elenco di tutti gli pittori, scultori, architteti, miniatori incisore in gemme i in rame, scultori in mettallo i mosaicisti. Aggiundi...* (1824), wherein there is an entry in the category *Incisori di camei, intaglia e cunj* on page 56 for Mastini (camei) S.Carlo al Corso n.106, but there is no entry for any Amastinis in any category in the book. Furthermore, there is no mention made of Mastini, Amastini or otherwise in Hawks La Grice's studio guidebook of 1841/4. Perhaps Niccolo Mastini would have been retired by this time as well. There is no certainty of this.

As well as carving their own neoclassical gems and making plaster and sulpher cast replicas, the Amastinis made cast sets of other star carvers of the day, such as the set of works by Pichler and Marchant which is in the collection of the Cast Gallery in the Ashmolean Museum, Oxford [44 a/b of 73 casts in white plaster]. The manuscript list is probably not original to this particular set, or was substituted by the manufacturer as the label reads "Solfi fatt. da Amastini" or 'Sulphers made by Amastini'. The subjects listed correspond to the plaster *impronte*. This would indicate that stocks of these sets were held by the makers to facilitate quick sales. A very similar set is in the collection of the Sir John Soane's Museum, London, but is not by Amastini. The *impronte* by Amastini in

1 Bulgari, Constantino G., *Argentari, Gemmari e Orafici D'Italia : Notizie storiche e raccolta dei loro contrassengi con la riproduzione grafica dei punzoni individuali e dei punzoni di stato*, Vol.1-5, (Lorenzo del Turco, Roma 1958-74) Volume I pp. 52

2 Turner, Jane (Ed.), *The Dictionary of Art* (Grove 1996) Vol.1 p.756

3 Kagan,J., *Western European Cameos in the Hermitage Collection* (Aurora Art Publishers, Leningrad 1973) p. 74 plate 95.

4 Turner, *Dictionary...* vol 1. p. 756 : Forrer, Leonard, *A Biographical Dictionary of Medalists, Coin, Gem and Seal Engravers, Mint Masters etc. Ancient and Modern. With References to their works B.C. 500 - A.D. 1900.* (Spink and Son Ltd. London) 1904 -1930: Vol III 1907 pp.130-31

the Ashmolean are arranged in a set of two folio volumes *Seria d. Pichler* and *Seria d. Marchant* and are very typical of the style and quality of the *impronte* produced by the Roman makers.

CADES

The Cades family of engravers and makers of *impronte* begins with the patriarch, Alessandro, who was born in Rome in 1734 and died in Rome on July 22, 1809 and is buried in San Lorenzo Lucina.[5] He was joined in the family profession by his two sons Giovanni, born in Rome in 1791 and died in 1835, and Tommaso, born December 13, 1775, who was alive in 1850 and deceased prior to 1868.[6] Alessandro was an acknowledged master carver and the inheritor of the professional style of Giovanni Pichler.[7]

It is not clear whether it was Alessandro or one of his sons who began producing *impronte* for sale. Alessandro is mentioned in journals as working in conjunction with Tommaso in 1809 on a collection of *impronte* from the grand cabinets of Europe,[8] but there can be no doubt that he was exposed to the early years of the mania for Dactyliotheca in the 1780s and 90s. He most certainly would have been aware of Bartolomeo Paoletti's work for the Grand Duke of Tuscany in 1797 and the Dolce family's *impronte* of Christian Dehn's collection. However there is no indication on any labels that Alessandro Cades was a maker of *impronte*, only Tommaso's name appears. Alessandro was however a noted engraver and assisted Giovanni Pichler in producing his major collection of mythological and classical gems in March of 1791.[9] It is known that the elder Cades lived between 1801-09 in the via della Croce near the Piazza di Spagna, where he died in the family's modest home.[10]

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5 Bulgari, *Argentari* ...vol. I p. 224; Forrer erroneously notes in his Biography of Medalists etc. that Tommaso was Alessandro's brother, when in fact he was his son.

6 Bulgari, *Argentari*...vol.I p.224; Thieme, Ulrich and Becker, Felix, *Allgemeines Lexikon der Bildenden Kunstler von der Antike Bis zur Gegenwart.* (E.A. Seeman, Leipzig 1911) p.342

7 Bulgari, *Argentari*... vol. I p.224

8 Guattani, *Enciclopediche Romane (Tomo v)* ...p.64

9 Bulgari, *Argentari*...vol II. p.272

10 Bulgari, *Argentari*... vol I. pp. 224-5

Giovanni Cades died in 1835 and is not known to have produced casts (on evidence of labels and guidebook entries), but this does not rule out the possibility that he collaborated with his brother; he was active as a carver in Casa di torri via del Babuino in 1820.[11] In 1821 he moved his family to the Corso; possibly with or near Tommaso who was known to be in the Corso, third floor of Casa di Eroli since 1816[12] (likely n.28 ?) and who is listed as being at via del Corso n.456 in Keller's guidebook of 1824. A state census of 1850 lists Tommaso Cades at this same address, which is also the most commonly occurring address label in the Ashmolean collection (see fig. 34 and detail).

The Cast Gallery at the Ashmolean, Oxford, possesses nine sets of Cades *impronte*: four bear labels for the Corso n.456 workshop, two for the Corso n.28 and the remaining three are not addressed. All of the Cades sets are in wooden stacking trays as opposed to Paoletti *impronte*, which variously occur in trays or in volume form; the British Museum has a set of twelve boxes of 600 *impronte* in book form which they attribute to Cades.[13] If these are indeed Cades *impronte* they are in a rare arrangement; in virtually all of the sets in book form at the Ashmolean the maker's name is embossed on the spine or printed on an interior label – the one exception is a set of erotic *impronte*. If the British Museum impronte are by Cades their slightly differing presentation makes them a good target for comparing with the manuscript catalogue in the Ashmolean and the lists of *Centurie* published by Tommaso Cades in the *Bolletino Dell'Instituto Di Corrispondenza Archeologica* between 1829 and 1868.[14] These articles showcase his latest offerings on new groupings of one hundred subjects. Based on other volumes by Paoletti, Liberotti and Amastini, groupings are typically arrangements of one volume featuring twenty five to thirty *impronte* per 'page'

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11 Ibid

12 Ibid

13 From correspondence dated 5/11/96 accession number 1985 7-8,1-12. The British Museum also has a set of stacking trays by Tommaso Cades -1924,3-3,1-31 "A number of gem casts 'as sold by the Italian engraver Tommaso Cades, early 19th century' (Departmental register) given to the British Museum by Viscount Ednam. Both are on display in gallery 47, the attribution of the former set is seemingly based upon similar *impronte* contained in each set. Regarding *impronte* this sort of attribution is very treacherous as the types of subjects were widely and identically available from a number of makers so similar contents do not necessarily indicate same makers.

14 T.Cades u. Odelli, *Impronte gemmaire in Dell'Instituto di Corrispondenza Archaeologica* 1831,34, 39, 68. For a total of seven boxes.

and fifty to a book. A set, possibly incomplete, of six hundred *impronte* in twelve volumes would correspond nicely to six of Cades *Centurie*, an arbitrary grouping that seems to be a trademark style of Cades. A photocopied collection of Cades descriptive catalogues for reference to his 75 trayed Dactyliotheca originally from the German Institute in Rome is in the reference collection of the Ashmolean Cast Gallery.[15] Given that each of Cades's *Centurie* trays contained one hundred *impronte,* this would make the total of *impronte* offered by the firm over 7500 in 1868.

Unfortunately, once the manuscript catalogues or the *impronte* have been remounted or otherwise separated from their original arrangement it becomes frustratingly difficult to ascribe one maker's type of *impronte* from another's, and even attributions become questionable on account of the fact that many of the same gems and subjects routinely turn up in all manner of sets by differing makers, for example works by Marchant, Burch or Pichler to name a few common ones. It would seem that the producers of *impronte* would buy gems from modern carvers, or at least borrow them from collectors, and make moulds from which hundreds of duplicates could be reproduced.

Another intriguing aspect of the Cades collections of *impronte* is that their main rivals would have been the Paolettis; the two families could hardly have been strangers to one another and may have reached some kind of working arrangement in so far as marketing and target audiences were concerned. Although tenuous, the documentary evidence supports the conjecture that Cades aspired to assume the role of an academic or intellectual carver who provided *impronte* as adjuncts to scholarly pursuits, hence numerous articles published in Archaeological journals[16] and in *Memorie Enciclopediche Romane Sulle Belle Arti ; Tomo V, 1809,* which has four pages of Cades's discussion of ancient gems, the types of figures represented by them, the minerals and their unique properties, and at the end there is a short mention of the fact, almost offhanded

[15] Cades T., *Impronte Gemmaire* 1831-68, a handwritten collection of the reference lists accompanying the 78 trays of his Centurie of impronte.

[16] Shedd, Meredith, *Collecting As Knowledge: Ingres' sculptural replicas and the archaeological discourse of his time.* (Journal of the History of Collections 4 no.1, 1992) p.68 who notes that the Institut de Correspondance Archaeologique was the first modern society of its sort and was established in 1829. Cades published a number of articles in this journal.

and coincidental, that Cades has available for sale a beautiful collection of *impronte* in scajola, sulpher and other materials invaluable to the current historical scholar (pp. 63-4):

> Impronte made in sulpher and paste after the antique:
> From the preceding article prepared by Mr. Cades it is the appropriate time to speak of a valuable collection of impressions in scajola that he has prepared. It is formed from the most beautiful carved stones, antique and modern, and presented in an amazing quantity. They are the finest choices from the immense number of intaglio and cameo which remain from ancient times, from the resurrection of the fine arts in the previous centuries and finally resulting in the beautiful works of our era. With this objective in mind, with his recently deceased father,[he] gathered examples from the principal collections of Europe and created impressions with utmost care so as to preserve the grace of the originals. Taking advantage of the antiquarian spirit and the recent learnings in history of the ancients he has come to arrange the impressions so that they form a chronological history of great art, of the Egyptian monuments, of the art of the Persians, Etruscans, Greeks and Romans. Here is a list and number of the works:
>
> | | | |
> |---|---|---|
> | Antique: | 1. Pieces in the Egyptian class | 80 |
> | | 2. Persian class | 20 |
> | | 3. Etruscan class | 200 |
> | | 4. Greek class | 1500 |
> | | 5. Roman class | 200 |
> | Modern: | 1. 15th century class | 100 |
> | | 2. the three centuries since | 900 |
>
> These impressions come accompanied by a brief explanation and are mounted so as to guard against damage during transport firmly in stacking trays, or they can be had in the form of books in the style used in libraries or conveniently in the customary drawers of medal cabinets.
>
> The same artist also makes other pastes of stones in cameo or intaglio which imitate precious stones. Other fictitious works in the antique style are made to imitate gold and silver medals and coins, bas relief or raised works with gold detail. He also distinguishes himself in making portraits in wax[17] and other compositions for lockets and other jewelry.

Little else is readily known about the activities of the Cades family. Keller has dual entries for the Cades firm, first on p. 56 in the category of *Incisori di cammei,*

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17 Cades was known to have made wax models for Josiah Wedgwood and Henry Webber: Saur, K.G., *Allgemeines Kunstler-Lexicon: Die Bildenden Kunstler aller Zeiten und Volker.* Band 15 Bucki-Campagnari. (Munich and Liepzig, 1997) p.484

intagli e cunj. Cades (cameo) via del Corso n456, and a slightly more descriptive entry on p. 70 in the category of *Mosaicisti, e negozj di belle arti, e di mosaico, Cades, Tommaso Camei, paste di smalto, collezione d'impronte in scajola di pietre incise di tutte l'epoche. Fra . Ritrati in cera. Via de Corso n456.*

A set of forty portraits of illustrious men (Ashmolean catalogue No.57, fig. 34a) is complete with the appropriate manuscript list and a shop label in French reading

Chez Thomas Cades Graveur en Pierres Fines
Rue du Cours N.456 aux Second Etage a Rome

> On trouve une collection 6000 Empreintes en stuc, tirees et choises parmie le plus celebres pierres gravees Anciennes et Modernes, qui existent dans les principaux cabinets de l'Europe, disposee par ordere chronologique, commençant par l'Ecole Egyptienne, jusq'aux Graveurs de nos temps ou par Mithologie et Histoire celon le sisteme de Winckelman et d'autre Savants etc. Ce meme artiste fait des pates en email imitant les pierres gravees etc.

Another slightly different label exists which places the shop at n.28 on the Corso and offering a collection of 5000 *impronte* and additional portraits in wax(fig 34). Based on the lower figure offered it can be said with a high degree of certainty that the n.28 address definitely preceded the n.456 address by a few years.

In later articles for the advertisement for his large collection the name of Odelli is included as co-producer. After Cades' death sometime after 1850 and before 1868, Odelli, under the supervision of Professor of Archaeology Helbig , issued the final *Centurie* of *impronte,* which in the 1830s at first were priced at seven and a half Roman scudi but were ultimately sold for six Roman scudi per one hundred *impronte,* ie. per *Centurie.*[18] This in all probability refers to Antonio Odelli, who is listed in Keller's 1824 book as working as a carver of cameo and intaglio at via Felice n.143. The Museo di Roma has a collection of *impronte* with a label for a shop kept in via delle quattro Fontane n.11 e 12; a handbook for Rome dated 1869 lists Odelli as being located at 67 via delle Stamperia Camerale.[19] It is not clear how extensive or limited was their collaboration. It appears similar to the collaboration between the Pietro Paoletti and Saulini after 1841, which could

[18] Righetti, Romolo, *Incisori di Gemme e Cammei in Roma, dal Rinascimento all'Ottocento.* (Fratelli, Polombi 1952)p. 80, note XIV

[19] Murray, John, *A Handbook of Rome and It's Environs 9th edition* (London, 1869) p. xxviii

have been economically motivated as the demand for gems and related materials was in steep decline in the wake of the Poniatowski affair. Furthermore, in an ironic twist Tommaso Cades, along with Odelli, Rega,[20] Dies and Ginganelli were the individuals responsible for producing the hundreds of onyx, sard etc. gems commissioned by Prince Poniatowski.[21] This is slightly contradicted by other more recent sources which assert that Poniatowski had more esteemed carvers such as Pichler, Girometti, and Cerbera create the gems while hiring Cades, Odelli and others to engrave the false signatures on the gems.[22] Many plaster *impronte* of Poniatowski gems are in the Ashmolean collection but none are verifiably by the hand of Cades. One would suspect that having produced the carved gems he would have made moulds for himself with which to produce *impronte*, a significant part of the souvenir trade which he practised. It would be reasonable to attribute any Poniatowski *impronte* to the hand of Cades but with the caveat that John Tyrell, who purchased the collection in 1839[23] after Poniatowski's death in Florence in 1833,[24] may have had casts taken of his collection in England by unknown craftsmen. However, it seems from all indications that the only commercial makers of plaster or sulpher *impronte* in Britain at any time were James and William Tassie (William retired in 1840 and died in 1860),[25] and there is no indication that they had any part in making casts of Tyrell's collection.

DOLCE

Another carver and important maker of *impronte* was Federico Dolce (also spelled Dolci) born July 1st, 1766, died January 30th,1849; and in the early 19th

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20 Righetti,*Incisori*... pp.45 Filipo Rega was born in 1761 and died in 1833. He also worked under the tutelage of Pichler and emulated Marchant's style and had connections with Naples which resulted in his doing a commission for Sir William Hamilton of a cameo portrait of his wife Lady Emma Hamilton.

21 Forrer, *Dictionary*... VII a-l 1923 p.143

22 Jones,*Fake?* ... p.150 (catalogue entry by Judy Rudoe of the Medieval and Later Antiquities Department at the British Museum.)

23 Ibid p.150

24 Forrer, *Dictionary*...vol.VII p.144

25 This is based on discussions with John P.Smith at Mallet and Sons. who has extensively researched the activities of the Tassies and has not come across any other makers of this style of cast working in Britain.

century his brothers Gaspare, born February 15, 1772 died ?, and Vincenzo, born December 23, 1770, died ?. [26] They were all the sons of Francesco Marie Dolce and Faustina Dehn (also spelled Denh, Dehne) the daughter of the noted antiquarian Christian Dehn (born 1696 Yssdom, Pomerania and died in Rome 1770)[27], who was the first of the family to practise the craft of making sulpher *impronte*. In a letter to the Society of Antiquaries of London dated October 14th, 1772, Thomas Jenkins, a widely known dealer in antiquities and the unofficial 'British Agent' living in Rome from about 1758 to 1798,[28] wrote to the Society:

> The late Christian Dehn was well known to all lovers of antiquity, by having been the first that ever made a respectable collection of sulphers or impressions from the most celebrated ancient gems,i.e. cameos and intaglios, during his lifetime, he had found materials for publishing an historical and descriptive catalogue of them, which being left unfinished, his successor and son in law, Abate Francesco Mar. Dolci has completed this work...29

Francesco inherited Christian Dehn's papers and later published them in three volumes as *Descrizione istorica del museo di Christiano Denh dedicata alla Regia Societa degli Antiquari di Londra 1772*. This book was an accompaniment to the approximately 2500 sulpher impressions produced by Dehn which were sold widely in Rome until his death (see figs. 35-7).[30] This would make Dehn most active in this trade in the mid 18th century. Raspe also makes mention of the fact that Dehn was a servant of Baron Stosch[31] on his travels around Europe collecting examples for his own book on antique gems.[32] Dehn may well have kept moulds for himself in addition to the *impronte* and presumably the moulds made for Stosch. However, it was not until 1790 that Francesco's son Federico made sulpher and plaster *impronte* of a select two hundred exceptional antique

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26 Bulgari, *Argentari...* vol. I pp.408-9

27 Pierce, S.Rowland, *Thomas Jenkins in Rome* (Antiquaries Journal Vol. XLV 1965) , footnote p.223

28 Ibid pp.200

29 Ibid p.223

30 Raspe, R.E. *A Descriptive Catalogue of a General Collection of Ancient and Modern Engraved Gems, Cameos as well as Intaglios...By James Tassie* (J.Murray Bookseller, London 1791) pp. liv

31 Ibid p.lvi

32 Raspe, *Descriptive...* pp. liv ; and Haskell, Francis and Penny,Nicholas, *Taste and the Antique : The Lure of Sculpture 1500-1900* (Yale University Press, New Haven and London 1981) p.98

gems and published a descriptive catalogue of them entitled *Descrizionei di dugento Gemme Antiche nelle quali contiene un saggio del vario disegno usato dalle piu colte antiche nazioni...per la Gioventu Studiosa delle belle arti. Roma M.D.CC.XCII*,

Other than the folio volume of plaster casts to Federico's book in the Ashmolean (accession No. 44 a,b,c,d. of four single sided 'books' containing brief descriptions of fifty gems each) a few trays of sulpher *impronte* are kept separately (162 b of the 'twin cabinets' drawers R L, N-R, U-Z) which are considered to be Francesco's *impronte* for the 1772 book. An old note accompanying the tray reads "Sulpher casts of antique gems from the Bodleian, 3 Jan 1884. ?Casts for collection of Christian Dehn v. Francesco Maria Dolce (abbot) Discrizione Istorica del Museo di Christian dehn Rome 1772 (as gifted to Soc. Ant. London)" (see fig. 38) The Society does not have a set of these *impronte*; perhaps these are the ones that originally accompanied the catalogue brought to the society by the Equery of the Duke of Gloucester as given to Thomas Jenkins, who in turn gave it to the Society.[33]

After the death of Francisco Maria, sometime prior to 1799, Federico, his two brothers and widowed mother lived together in the via Condotti across from the Piazza di Spagna. In 1813 Federico was living on the first floor of the strada Felice n.13; in 1820 he was working as a carver at Piazza di Spagna 49, and finally at via delle Vite n.84 from 1833 until his death. This Piazza di Spagna address is curious as it is the address which predominantly turns up on *impronte* made by Bartolomeo and Pietro Paoletti. Did Federico occupy the studio before the Paolettis? Did he work for them? or did the Paolettis move in sometime between 1820-33 when Federico may have moved out? As for the brothers, not much else is known except that Gaspare lived next to Federico in 1813 and obtained a legal qualification, suggesting that he was not as dedicated to the family business as was his brother Federico. [34]

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33 British Museum Department of Medieval and Later Antiquities accession register for item 1985, 10-4,1 Casket of 1350 casts taken mainly from classical gems (some casts of 18th century gems included) issued in Rome by Christian Dehn (1696-1770) in the late 18th century. Purchased from Christie's London, 4th July 1985, lot 94.

34 Bulgari, *Argentari*....vol.I pp.408-9

Other noted work attributed to Dolce is a collection of gesso *impronte* which correspond to *Catalogo della Collezione delli Spintire esisenti nel Museo di Christian Dehn*[35] The Dolces appear to have retired from the business of making *impronte* sometime before Keller's guide, published in 1824, which has all other known or reputed makers listed in a very comprehensive manner. Had the Dolces, a familiar and premier name amongst makers of *impronte* in the 18th century, still been active they would not have easily escaped notice or mention by Keller, who had also been active in Rome as a sculptor since at least as early as 1807.[36]

LIPPERT

One of the most unusual and intriguing sets of *impronte* in the collection at the Ashmolean is the collection known as *Lippert's Dactyliotheca* which was made by Phillip Daniel Lippert of Dresden and was acquired from the Wellcome Collection via the Fitzwilliam Museum, Cambridge in 1988.[37] It contains three thousand casts contained in three large 'book' style cases of twenty trays in each. The casts are arranged in a didactic fashion and are commented upon in old style Sutterlin script German, in the accompanying facsimile catalogue (see fig. 39). His works were widely known on the continent and were a direct inspiration for the collections offered by the carvers and makers of *impronte* in Rome.

Lippert was born in Meissen near Dresden on the 29th of September, 1702 and died in Dresden on the 28th of March, 1785.[38] Lippert was apprenticed as a glazier, studied at the Dresden School of Drawing and was apprenticed at the Meissen factory as a porcelain painter, as which he is registered in a 1726 factory document.[39] At some time after this date he went into business for himself but

35 Placeti, Cristina Ashgreen and Pinto, Sandra, *Curiosita di una Reggia...* (Centro di, Firenze), 1979 p.91

36 Guattani, G.A. *Enciclopediche Romane* (1807 Tomo III) pp.82-3

37 From Label copy attached to the collection on display in the Cast Gallery of the Ashmolean Museum, Oxford.

38 Thieme and Becker, *Dictionary...*vol. XXIII pp.268

39 Heres, Gerald,*Daktyliotheken Der Goethe-Zeit* (Forschungen und Berichte, Berlin 1971) p.65 : Turner, Jane (Ed.) *The Dictionary of Art Vol. 19* (Grove, 1996) p. 439

through his association with Winckelmann and Baron Hagedorn his interest in gems was stimulated.[40] No doubt inspired by the properties of the porcelain pastes innovated by the Meissen factories Lippert saw an opportunity to aid in the dissemination of classical knowledge via the production of paste copies of the famous collections of Europe studied by such men as Winckelmann and Stosch. Being a man of humble origins himself it was Lippert's feeling that the traditional Latin of scholars was too restrictive and prevented the common man from educating himself[41] and he therefore elected to publish his collections catalogue in German. To ensure that the commentary on the gems was accurate he

> published three different collections of these impressions, each of them containing one thousand numbers, and arranged in neat cabinets of various forms; and to the merit of having much increased the number of Christian Dehn's and Mademoiselle Feleix's collections , which were all inherited in his, he added that of employing some of the most learned men in Germany in the arrangement and description: the first thousand being arranged and described by the late Professor Christ at Leipzig, and the second and third by Professor Heyne at Gottingen. Nor did he stop here – but, to make the study of antiquity and the art more easy and acceptable to artists, he selected out of the whole collection of three thousand, a smaller one of two thousand, of the best and most instructive subjects, of which he drew up and published a description in German, that does credit to both his intention and consummate knowledge of the arts.
>
> All these spirited exertions were received with a generous and liberal attention on the part of the public; for there is hardly a good school, university, or public library , in Germany, in which these collections of Mr. Lippert have not been adopted, in their plans of public education, or set up for ornament or amusement.[42]

Lippert's work was comprehensive and valuable but he did not really innovate much in the way of material or technique but was in effect a shrewd businessman, an observation which is borne out by Raspe's commentary (bearing in mind that his catalogue was intended to generate interest in Tassie's offerings.)

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40 Raspe, *A Descriptive Catalogue...* p.lviii

41 Heres, *Daktyliotheken...* p. 66

42 Raspe, *Descriptive...* p.lviii

> Lippert not finding sufficient encouragement for his pastes or coloured glass, or rather experiencing local difficulties in making them well and cheap, and moreover, being sensible that red or black sulpher impressions have, besides many other imperfections, a false lustre, began to substitute in their place impressions, not of talc or clay, as we are told by the Edinburgh Encyclopedia, but of fine white Alabaster or selinite Plaister, which when carefully soaked in a solution of white castile soap, then dried and rubbed over with a soft brush, take a very agreeable smooth polish, and shew the work to better advantage than red or black sulphurs: but they are more easily defaced.[43]

The only slight variance from other forms of plaster material discussed in a previous chapter is that he reputedly employed selinite and or alabaster based plaster, which would indeed enable a very smooth surface texture to be obtained. The soap and polishing techniques are consistent with other commonly known tradesmen's tricks.

Although having been widely distributed through Germany these collections by Lippert are nowadays exceedingly rare. Despite the destruction inflicted on Germany as a result of two world wars and political division, there must be some of these works by Lippert languishing undiscovered in various estates and archives in much the same manner as the sulpher collection of Lord Elgin exists at Broomhall, Dunfermline.

PAOLETTI

Of all the makers of *impronte* whose works have survived to the present perhaps the most numerous are those produced by the Paoletti family of Rome. Despite the fact that so many sets by the Paolettis turn up in museums, antique shops, libraries and private collections very little is truly known about this maker's activities and family, apart from tantalizing episodes and frustrating clues.

What is known is that Bartolomeo Paoletti was born in Rome in 1758, was married by the age of twenty five to Agnese Arno, and they lived in the Piazza di Spagna. They moved a few times and between 1786-90 lived at the Piazza di S. Andrea delle Fratte; from 1792-95 the family was recorded as being in the strada

43 Ibid

Paolina.[44] From August 1796 to August 1797 Paoletti was in Florence working for the Grand Duke of Tuscany, Ferdinand III. It is not clear whether or not his family accompanied him on this commission.[45] By 1824 Bartolomeo was at least working, and most likely living, at Piazza di Spagna n.49.[46]

Bartolomeo and Agnese Paoletti are presumed to be the parents of Francesco and Pietro Paoletti. No proof as yet exists for this but, considering how typical it was for families to practise the same profession at this time in Rome the probability is high that they were all immediate family.[47] All that is known of Francesco is that when he was twenty years old he was residing and working at via Condotti 81, making his birth year 1789, when the family was living in piazza di S. Andrea delle Fratte,[48] and that sometime after 1824 he produced some *impronte* at Piazza di Spagna n.49.[49] As for Pietro the only evidence we have that he existed is his name on numerous sets of *impronte*. Many sets of *impronte* bear the names of both Bartolomeo and Pietro, Bartolomeo alone, and Pietro alone; none are positively dated but by comparison of datable works by modern sculptors some lower margins of production can be ascertained. Some published works have assumed that it was Pietro alone at n.49 by 1841,[50] but the advertisement upon which this assumption is made only states the family surname and no forenames. It is possible that Bartolomeo was still active in the business in 1841, making him eighty three years old – certainly not beyond the realm of possibility.

In comparison to Tommaso Cades, who published scholarly type articles and was referred to in art encyclopedias and journals, the Paolettis are mute. Other than advertisements and references in guidebooks there are no known writings by any

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44 Bulgari, *Argentari...* vol.II pp.232-3

45 Uffizi letters, location: AGF-Archivo gallerie fiorentine. Filizia XXVIII a 54. Dated from February 29, 1796 to September 29, 1797.

46 Keller, *Elenco....* p.71

47 For example the Dolces, Cades, Pichlers, Saulinis to name but a few, were all father and son enterprises.

48 Bulgari, *Argentari...*pp.232-3

49 Stefanelli, Pirzio Biroli-Lucia, *Pietro Paoletti e la sua Collezione di impronte.* (Bollettino Dei Musei Communali Di Roma, Anno 1978-80. N.1-4) p.8

50 Bulgari, *Argentari* ...pp.232-3 and: Stefanelli, *Pietro...* p.8

of the Paolettis. Apart from catalogue manuscripts, what written material does exist are the following entries: on page 70 from Hienrich Keller's *Elenco .. .(Rome 1824.)*, in the category of *Mosaicisti, e negozj di belle arti, e di mosaico* is

> Paoletti, Bartolomeo. Fabbricante di paste in smalto, tanto in incavo, che in cameo. impronte di scajola, copiate degli originali esisenti ne'varj musei del Europa. Piazza di Spagna n.49

Loosely translated it reads Bartolomeo Paoletti. Maker of paste in smalto,[51] many intaglio and cameo. Impressions in scagliola copied from the originals existing in various museums of Europe. Piazza di Spagna number 49.

The following advertisement appears in at least two editions of *Walks through the Studii of the Sculptors at Rome...by Count Hawks La Grice vol. 1 and 2. 1844*[52] (see figs.40-2)

ADVERTISEMENT
Walks tro' the studj of the Sculptores at Rome,
illustrated by Paoletti and Saulini

> Paoletti begs to inform the public that he has arranged a collection of impressions (impronte in Scajola) of many of the works in sculpture executed by distinguished artists, whose works are described by the count Hawks La Grice in the above and interesting and instructive "Walks"; he has also executed impronte taken from the portraits of the Author, of Thorvaldsen, Gibson, Wyatt. Wolff etc., all of which have been executed in Cameo by Saulini, a distinguished Roman Engraver.
>
> The impressions are bound up in 3 vol.4, and form an appropriate companion, to the count's work. Although the impronte are but miniature copies; yet they exhibit all the fidelity and beauty of the originals, and convey to the eye a better idea of sculptured works of art than the most finished engravings. The studio of Paoletti is Piazza di Spagna Num.49, where collections in impronte may be had of all the works existing in the different Museums in Europe.

Considering that very little personal information is available on the Paolettis it is

51 Smalto. A glass or glazed ceramic. also referred to as Tessera. Mayer, Ralph. *A Dictionary of Art Terms and Techniques* (Barnes and Noble Books, New York , 1969) p. 336

52 In Stefanelli's article on Paoletti, she cites from an edition of this book dated 1841 and credits it as edited by Crispino Puccinelli, in the 1844 edition he is referred to only as the Printer- an interesting discrepancy.

remarkable that a clear portrait of Bartolomeo's professional activities should be so well preserved and documented as is the case of a commission for the Grand Duke of Tuscany begun in 1796 and completed in 1797. This enterprise was the direct result of the French invasion of Italy which resulted in a peace treaty of sorts being signed between Tuscany and the French on February 9, 1795.[53] By this time the French menaced, but did not occupy Tuscany. This lingering threat of invasion did make the Tuscans nervous, and therefore made them anxious to appease and cooperate with a number of French cultural initiatives. The French made very strident overtures for cultural exchanges between the Florentines and themselves and in the spring of 1795 'Citizen Tinet' approached the Tuscans proposing that copies and exchanges of works of art, sculpture, literature and other fine Italian materials be undertaken.[54]

> L'artiste demaindait[sic], donc, a etre envoye a Florence pour y proposer " un exchange de tableaux flamands contre les objets qui pourraient concourir a la perfection et a l'embellisment du Museum" ...Tinet joignant un projet de decret dont l' article 4 stipulat: " Les tableaux que le Citoyen Tinet doit le plus indiquer sont ceux de Michel-ange, Andrea del Sarto, Fra Bartolomeo. Leonardo da Vinci, Vasari, Cigoli, Cimabue, Giotto, Masaccio, Ghirlandaio, etc., le museum manquant absolument de plusierus[sic] de ces maitres" 55

These proposals did not initially sit well with the Tuscans and after several months and numerous diplomatic exchanges the matter was eventually watered down to nothing. So as not to lose face or abandon the opportunity for amicable cultural exchange an agreeable compromise was reached between the Director of the Bibliothèque Nationale in Paris, A.L. Millin and the Director of the Uffizi in Florence, Tommaso Puccini.[56] In reply to a Tuscan proposal to copy items in the National Cabinets in November 1795 (only date given as 20 fructidor 3, in the French republican new calender) in a letter dated January 21, 1796 Miot informed the French Ambassador in Florence, Delacroix, that Millin "celui-ci desairait[sic] la collection des empreintes des pierres gravees de la Galerie de Florence et promettait en retour celles du Cabinet National de Paris." [57]

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53 Boyer, Ferdinand,*Le Monde des arts en Italie et la France de la Revolution et de l'Empire* (Societa Editrice Internazionale, Paris 1969) p.63

54 Boyer, *Le Monde* ...p.12

55 Boyer, *Le Monde* ...p.14

56 The catalogue of casts made by Paoletti is still with the collection in the Uffizi. See Placenti and Pinto *Curiosita...* p.104

57 Boyer, *Le Monde...* p.14

As this arrangement did not involve any major works of art or threaten the political situation the proposed exchange went ahead. The Parisian library in a letter dated February 29, 1796 asked Tommaso Puccini at the Uffizi whether or not they possessed a complete selection of items from the catalogue of A.F. Gori (160 cameos and 643 carvings [intaglios presumably]),[58] after a series of diplomatic exchanges between the French Minister of the Interior, Miot, and the Tuscan Ambassador Neri Corsini in concert with the Secretary of State Serrati Puccini informed the French on June 28, 1796 that a disfigured and unworthy series already exists and needs to be redone 'according to the style practised in Rome and elsewhere'.[59] On August 8, 1796 Puccini received from Millin the complete manuscript catalogue of the gems in Paris, 57 and 59 pages worth.

There are no letters describing the process but sometime during July and August after Puccini's letter of June 28th consultations were made concerning who would be hired to undertake the making of the new series of impressions. However, the dated letters slightly confuse the situation as the Uffizi contains a letter from Puccini to the Grand Duke explaining that the existing impressions are tired and new ones are necessary as the old ones are made from very soft and delicate clay "creta molto molle e raffinata" and there are not people in Florence capable of executing the work. While in Rome the carver Gaspero Capperoni proposed that he could do the work for the price of 5 paoli for small pieces and 10 paoli for large ones.

Despite Capperoni's application other decisions had been made and on August 19th, 1796 the Pontiff's Secretary of State communicated to Puccini that he had located and dispatched from Rome " a clever craftsman, and of known honesty", subsequently revealed to be Bartolomeo Paoletti. In a letter of the same date, annotated by Ferdinand III, Miot was informed:

> that in these circumstances the time required to make the copies of each gem in glass paste and receive the approval of each from the said minister, we will in the meantime send a series of the said copies in sulpher so that you may be assured that the work is being done promptly by the same hand and

58 Uffizi archive Filza XXVIII a 54
59 Ibid

in agreement with the terms stipulated by the republic...[60]

Clearly some concrete survey of the necessary work was done, perhaps by Paoletti, perhaps not; what seems plausible is that a description of the amount of work necessary and the required material ie. glass paste, suggests that Paoletti had not previously worked in this medium for making *impronte* and would require some time to work out a suitable recipe. In the meantime a quick series of sulphers, in the manufacture of which he was clearly proficient and noted, could be made. It is likely that glass paste was requested in the wake of the enormous popularity of James Tassie's glass paste series of 1791. Other monarchs had ordered sets of these; notable amongst them was Catherine the Great of Russia who purchased three sets of Tassie's Dactyliotheca (three sets of 15,800 impressions!).[61] These arrangements satisfied the French and on September 17, 1776 Puccini entered into an initial contract with Bartolomeo Paoletti to produce 300 pieces with a prohibition against making or keeping any copies or imperfect pieces.[62] This letter also contains some very interesting details about the basic working arrangements and the reputation of Paoletti. It seems that Paoletti was esteemed for his honesty and workmanship in Rome and based upon other activities, presumably the making of impressions, for the Cabinet of Capo di monte in Naples,[63] and his work for Pichler:[64] clearly Bartolomeo Paoletti was a celebrated craftsman.

As for the making of the moulds and impressions for the Uffizi, the September 16th letter reveals that some amendments to the initial commission were made and six hundred rather than three hundred pieces would be required. To assist

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60 Boyer, *Le Monde...* p.14 indicates source as Cf. Paris, Arch.Aff.Etr. Fonds Toscane Corr. Pol. T. 147 A, f 08 131 et 135.

61 Miller, Anna,*Cameos Old and New* (Van Nostrand Reinhold,1991) p.132

62 Uffizi Archive

63 See also the Exhibition catalogue *Curiosita di una Reggia, Vicende della guardaroba di Palazzo Pitti,* (Firenze 1972) p.104 footnote 27.

64 It is not specified which Pichler this was; Antonio Pichler 1697-1779, Giovanni Pichler 1734-91 or Guiseppe Pichler 1760-?, are all possibilities. Giovanni is the most likely candidate. See footnote 64 below.

him in these labours Paoletti brought a man named Santarelli with him.[65] Furthermore, Puccini reports that he has forced Paoletti to accept the price of 13 paoli for each piece of work with an approval for an additional 40 scudi for expenses with the proviso that at the completion of the process each piece is delivered *arrotondati all ruota,* 'rounded from the wheel' by the Opificio delle Pietre Dura (the Workshop of the Hard Stones). These prices are much higher, in fact more than double, those quoted by Gaspero Capperoni in August 1796, although it is not clear if these prices reflect those for sulpher or glass paste. It is very probable that Paoletti's price would be for glass impressions only, and Capperoni was quoting for sulpher impressions. A letter dated August 19, 1797 for Paoletti's second contract indicates that sulpher impressions cost 5 paoli each and glass pastes were 13 paoli each. Otherwise there is no accounting for such a wide discrepancy in cost; reputation or not, it is difficult to imagine that the Grand Duke would opt to pay almost three times as much for the same type of work. Paoletti also accepted that he would be at all times under the supervision of a guard and would be permitted to have no more that fifteen gems with him in the workshop. There was a further condition that no imperfect copies could be kept by Paoletti.[66] Based on Puccini's letter it would also appear that enthusiasm for the project was growing, as he suggested that a proposal to the Mint be made to make copies of the collection in gold and silver including a backlog of works dating back to the Renaissance,as well as the glass paste and sulpher. This was backed up by an assurance from the *Potenani* on 11 November of a further 600 scudi to be spent as Puccini sees fit. This apparently did not come to pass. Subsequently Puccini obtained a small furnace from Royal Foundry a week before the formal contract with Paoletti was signed on 28 November 1796, and three days before arrangements were made to have a Senior man of the Guard, Salvini, to have access to keys and to oversee Paoletti's work.

The next letter is dated January 31, 1797, from Puccini to Luigi Cambray Digny,

65 This is presumed to be Giovani Antonio Santarelli, born in Manoppello (Abruzzo) in October 1758 according to Thieme-Becker and 1769 by Forrer. Righetti *Incisori di Gemme e Cammei in Roma* Fratelli Palombi, (Rome 1952) p.44 states that Santarelli was recorded at age 27, 1785, in Rome and also worked under the guidance of Giovanni Pichler for 12 years (perhaps this is where his association with Paoletti began) and in 1797 transferred to Florence, where he remained until his death in 1826.

66 This is very similar to the ancient injunction of "Solon's Law" which prohibited gem engravers from retaining copies of intaglios made for official seals. See Richter *Engraved gems of the Greeks and Etruscans.* .. p.23

the book keeper, beseeching him for money to pay Paoletti, as he has already completed over a third of the work required. By 6 March, 1797 it was reported to the book keeper that Paoletti had completed 629 pieces plus the 'Grand Sardonyx'[67]. Now assuming that Paoletti began work on or about November 28 that would be approximately 100 days to complete this work. If he were able to complete 15 per day it would require only 42 days, but if you calculate 100 days into 629 you get a figure of 6 per day; now removing about 18 days for Sundays and Christmas when presumably they did no work, that averages about 8 per working day, which for a skilled man and an assistant is a comfortable and almost leisurely pace. In a communication of March 18, 1797, the Colonel of the guard detail reported to Puccini who informed Serrati who told the French, that the full work is not yet completed but Paoletti was paid and is taking a month off and will return to complete the commission under new conditions.

The next significant communique comes on April 26, 1797. The language is a bit archaic and was problematic to translate.[68] The original transcript is thus: "Puccini al Granduca; Paoletti ha gettato felicimente le paste. Puccini si giustificia per aver cercato di far fare all'Opificio la parte meccanica per non gravare autore e spese (350 zecchini). Ripattuisce il lavoro. l'incorniciatura delle paste con un "cordonciono che tenga luogo di cornice, e la fattura degli zolfi." Which, roughly translated, indicates that Puccini informed the Grand Duke that Paoletti has happily finished making the impressions in paste. Puccini is justified for having tried to imitate the work at the mechanical workshop and he spent 350 zecchini trying to frame the pastes and execute the sulphers. Obviously he was none too successful at mastering the work as Paoletti received a new contract for a further commission on June 14, 1797, which was completed by August 19, 1797 when

67 It's not explicitly clear which gem this is in reference to, but I strongly feel that it is the Gonzaga Cameo of Sardonyx , 15.7 cm x 11.8 cm, which depicts Ptolemy II and Arsinoe made in the 3rd century B.C. which is often mimicked in portraits found in impronte. The cameo was acquired by the Vatican by Pius VI in 1794 and taken to France in 1798 and ultimately to the Hermitage in St Petersburg via the Josephine de Beauharnais collection in 1814.The involvement of the Potenani in this casting enterprise and the presence of the French in Italy at this time would suggest that the Uffizi may have been anxious to retain some copies of the stone should it be acquired by the French. See Neverov, O, *Antique Cameos in the Hermitage* (Aurora publishers, Leningrad 1971) p. 75 and plate 1. also Brown, Clifford Malcolm, *The Farnese family and the Barbara Gonzaga collection of antique cameos* , (Journal of the History of Collections 6 no.2,1994) pp.145-51.

68 Translation was a recurring difficulty as the bombastic archaic Italian and haphazard grammar was very confusing even to a trained translator, Mrs. Teresa Foccione, I enlisted to help me out with numerous quotations cited.

Puccini reports that Paoletti and Santarelli have made a further total of 631 sulphers at 5 paoli each and an additional 290 glass pastes at 13 paoli each with a supplementary charge 2 paoli 26 zecchini for the finishing and polishing of the pieces. The final financial account by Puccini to the Grand Duke on August 30th, 1797, states that Paoletti has departed and the guard Salvini has learned the work and is confident that he could make a complete series for the collection.

In a follow up report of September 9, 1797, the Grand Duke personally acknowledged that the guard Salvini 'while in the presence of the craftsman Paoletti, has learned the art of making said impressions in sulpher and scagliola' he has permission to make a complete series of them. For this detail Puccini proposes on September 19, 1797 that the work be done at Fort Belvedere as that is where Salvini is stationed and there is also sufficient room to do the work. The next day the Grand Duke gives his assent to the project. What has become of these *impronte* is not known.

As mentioned previously, that this exchange was primarily a diplomatic exercise that the Tuscans were anxious to participate in but the French were not quite as enthusiastic about is borne out by the final observations of the French Minister Miot. Who in light of the significant acquisitions of art by the French armies from the northern territories of Lombardy, Parma and the Veneto, he wrote on July 7, 1797 justifying the abandonment of talks with the Tuscans, that "The riches collected by the army in Italy rendered an exchange with the Grand Duke much less interesting" as the victorious French armies could simply carry away trophies and needn't bother with small exchanges.[69]

As for other surviving works of the Paoletti family's trade, they are well represented in Roman museums such as the Bibliotecha Casanatense, and the Museo di Roma. The Museo di Roma has seventeen sets by the Paoletti family, the majority of which were made at the Piazza di Spagna 49 address and two by F. Paoletti at n.49 and in the via della Croce. The largest of these collections is 7,189 glass paste *impronte* kept at the Palazzo Braschi, contained in a mobile cabinet measuring 147cm x 120 x 42 which contains 126 31.5 x 20 x 2.5cm vertical stacking

69 Boyer, *Le Monde*...p.15

trays.[70] All of the remaining sets are made of plaster, which leads one to suspect that the large collection of glass paste *impronte* are the master moulds which were used for making sulpher and plaster copies, rather than sale goods themselves. The only other known Paoletti glass paste *impronte* are in the Uffizi, which were, as previously described, a special commission. It is possible for the makers to have kept moulds made from sulpher and plaster but these are much more vulnerable to damage than are glass. In many cases copies of moulds would have been irreplaceable if broken and it is reasonable to think that a master set would have been kept and moulds for production taken from them.

The Ashmolean has in its collection sixteen sets with shop labels for the Paolettis. Three of the sets are the work of Francesco at via della Croce n.86 (see fig. 43), ten are to Bartolomeo and Pietro at Piazza di Spagna n.49, and three contain no address. A number of other sets are very typical of the style and composition of the Paolettis, but as all makers were issuing very similar styles and materials it is hazardous to make any certain attributions without shop labels affixed to the collections. Caution should also be exercised with sets which contain manuscript catalogues, but no corresponding label, since there is no guarantee that the manuscripts are original to these sets, and as some sets vary in composition by only a few *impronte* it is all too easy to be led astray when making attributions based on this type of information. Curiously, although the Paolettis were known to have worked with sulpher, none of the verifiably Paoletti *impronte* in the Ashmolean are made of sulpher. The same is true of the known works by the Cades and Liberotti in the Ashmolean. The collections in sulpher by Dolce and presumably the Amastinis, as well as Bartolomeo's commission for Ferdinand III in 1796/7 are in sulpher. This would suggest that for whatever reason – the noxious nature of working with sulpher or offence to nearby neighbours, cost, availability of regular supply or customer preference etc. – it would seem that the majority of sulpher *impronte* would date from the 18th century and very early 19th century, whereas the 'plaster' collections are likely from the boom period of the 1820s up to the decline in the late 1860s. This is further supported by the collection of Lord Elgin, purchased certainly before 1810, which is almost completely of sulpher and with only a handful of plaster *impronte*.

[70] Stefanelli, *Pietro...* p.3 and note 6

Chapter 3

Bartolomeo Paoletti is recorded as being a gem engraver of modest skill who worked in the style of Pichler during the late 18th century. However there are no gems definitely attributable to his hand known today. The only evidence for his having executed gems is contained in his collections of *impronte*. The Museo di Roma has attributed 38 out of a collection of 641 *impronte* to have been actual gems made by Paoletti. Presumably this was based upon catalogues accompanying the set, which usually credit the modern carvers for their works depicted therein. This is not a foolproof means of attribution and should be approached with caution for the following reason. In the Ashmolean collection set 24e by Paoletti contains a section featuring *Opere di varj Autori Moderni* which has an entry for *114. altra,di Paoletti;* however closer examination of the *impronte* reveals that the gem is signed in mirror image Greek letters PICHLER. (see figs. 44-6) this is not to suggest that Paoletti was misrepresenting works of others as his own; it is likely an honest production error that could have been made by an employee or by Paoletti himself. It is easy to get confused when confronted with hundreds of very similar objects on a daily basis; but it does underscore the difficulty and the need for caution when the attribution of works is based on the accompanying manuscript entries alone; rather than careful comparison with collections having verifiable provenance and manuscripts.

A difficult aspect of this study is the lack of strong documentary evidence for the activities of the lesser carvers and craftsmen in Rome. The Paolettis, while abundantly represented in museum collections, are not easily understood except in oblique ways. Pietro Paoletti is presumed to have been a major maker of *impronte* for sale in the first half of the 19th century, but even the most comprehensive Italian sources and researchers have turned up little more than the evidence of his name in La Grice's guidebook. A possible explanation for this may well be the fact that Pietro's interests did not lie with the family trade; although his name appears on the shop labels there is no evidence that he ever carved a gem or was involved in the daily affairs of the business. Nor is it known how long Bartolomeo lived, or what became of Francesco. The 1841 and 1844 editions of La Grice's book with the advertisement for the Paoletti's shop only gives the family name, no first names. However, on page 281 of the 1844 edition in the section devoted to the location of painters' studios there is a listing for *Paoletti, Cav. Via S.Isidoro n.11,* but there is no mention of any Paolettis in the

sections on engravers or 'mosaicisti'. Stronger evidence to support the argument that Pietro was occupied with other artistic activities comes from a short article about the poet Angelo Maria Ricci, his involvement with Thorvaldsen, and the frescoes done for the Palazzo Ricci by the Roman painter, Pietro Paoletti (1801-1847).[71] Given the popularity of Thorvaldsen *impronte*,the small community of Roman artisans, the lack of any concrete evidence that Pietro actually engraved gems or made *impronte*, and the era of his work, the evidence strongly supports the notion that Pietro was a figurehead associate with the Piazza di Spagna workshop and his real passion was for painting.

Another of the Paolettis` activities in Rome and their affiliation with other artisans is reflected in the aforementioned advertisement which states that Paoletti and Saulini are offering collections of *impronte* for sale at Piazza di Spagna n.49. The Saulinis, Tommaso and son Luigi, were both gem engravers of no small repute. Tommaso was born in Rome in 1793 and later married Teresa Zanetti who gave birth to their son Luigi in 1819.[72] From as early as 1836 Tommaso was engaged in cameo engraving at n. 8 and 9 Via della Croce[73] and at via del Babuino n.96 from 1857 to his death on June 24th 1864, but Luigi maintained the business on these premises until his death in 1883 and his descendants were still occupants in 1909.[74] It is not known where Tommaso did his training as an engraver but he is known to have done artistic studies in the studio of Thorvaldsen, reproducing many of Thorvaldsen's works in agate and shell cameo. These same subjects are reproduced in *impronte* in numerous collections of Paoletti, for example the sardonyx cameo of *Aurora driving her Biga* of an uncertain date signed T.Saulini (see fig. 47 + 48). As Tommaso maintained a studio in the via Babuino it is most likely that it was Luigi who was primarily affiliated with the Paolettis; it is not made clear which Paolettis or

71 Apolloni, Marco Fabio, *Un poeta mecenate di se stesso: Angelo Maria Ricci e gli affreschi di Pietro Paoletti in Palazzo Ricci a Rieti.* (Richerce di Storia de'll arte. 1992 vol. 46-28), pp. 36 and notes pp.46. with a further reference to Tessari, Antonio,*Pietro Paoletti Pittore Belleunese dell'Ottocento* in Archivio Storico di Belluno Feltre e Cadore, October-December 1985, n. 253 pp.145-51 and January-March 1986 n.254 pp.24-9. Also Benezit, E., *Dictinario Critique et Documentarie des Peintres, Sculptures, Dessiders et Graveurs* (Libraire General, 1976) vol. 8 p. 113 lists Paoletti, Pietro b. 24 September 1801, Rome- d. 23 October 1847.

72 Bulgari, *Argentari*...p. 381

73 Carr, Malcolm Stuart,*Tommaso and Luigi Saulini* (The Connoisseur, 1975 vol. CXC) pp.171-2

74 Bulgari, *Argentari*...p.381

Saulinis interacted with whom, perhaps all of them at one time or another. Through their relationships with other noted sculptors, such as John Gibson RA (whose works are liberally depicted in collections of *impronte* by several makers), the Saulinis became the darlings of the English community in Rome and were eagerly sought after to render multiple portraits of patrons in shell and stone. Notable personages amongst these commissions (but not patrons) were Prince Albert in 1844, and the Duke of Northumberland in the 1850s.[75] This association with English nobility and royalty was to reap handsome reward for Luigi Saulini, who was presumed to have been in London in 1860[76] doing various works, some of which were on display at the 1862 International Exhibition and others were cameos commissioned by Queen Victoria in 1862/3.[77] John Gibson was also an intermediary for these commissions until Luigi Saulini arrived in England, which strongly suggests they had a firm relationship based on their familiarity stemming back many years in the artisans' area around the Piazza di Spagna. It is unlikely the Saulinis would have entrusted Gibson to be a go-between with such an important client as the English Monarch without some significant prior affiliation with one another. Considering that the Saulinis, connected with Gibson, collaborated with the Paolettis in selling *impronte*, it is probable that these personal and professional associations enabled the Paolettis to gain easy access to Gibson's body of work, so as to make moulds for the series of *impronte* that appear in so many Paoletti sets. In turn, this popularization of Gibson's art had the obvious benefit of raising the sculptors stature, and perhaps simultaneously stimulating demand for sets of *impronte* containing works by Gibson. Therefore, these collaborative arrangements can be interpreted as having been of benefit to all parties involved. This would also underscore the reason for so many of Gibson's works turning up in Paoletti *impronte*. Perhaps the Paolettis required the Saulinis' connections with Gibson and Thorvaldsen[78] in order to secure permission to make reproductions in *impronte*. As early as 1841 the strong ties and respect garnered by the Saulinis within the Roman community were remarked upon by La Grice who writes :

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75 Carr, *Saulini...* p.174

76 Bulgari, *Argentari* ...vol.I p.381

77 Carr, *Saulini...*p.177

78 Thorvaldsen also amassed a sizable collection of gemstones. See Richter *Engraved Gems of the Romans...* p.22

> Saulini has drawn and modeled[sic] in the studio of Thorwaldsen,[sic] and executed for that eminent artist many of his works in pietra-dura, as well as in shell. The classic productions from the chisel of Thorwaldsen, Gibson and other distinguished sculptors, are also copied by Saulini in cameo with more care than subjects merely intended as an accessory to the ladies toilet; and in fact their artistic execution and high finish entitle them to a place in the cabinet of the dilettante.[79]

Luigi Saulini was still listed in other guidebooks in 1881, two years before his death.

> Engravers of Cameos (principally on shell)
> Saulini: 96 Via Babuino
>
> The most employed for portraits, he is also an engraver of cameos in pietra dura for which he obtained a medal at our Great Exhibition of 1862 and has executed several portraits for the Queen and Prince Consort for her Majesty.[80]

There is no indication that he was issuing collections of *impronte* at this time and as it is uncertain when the Paolettis died, no firm date can be given for the absolute extinction of the practise of making collections of *impronte.*

LESSER MAKERS:

It is not clear exactly how many individual makers of *impronte* there were during the hundred years or so of their popularity as Grand Tour souvenirs and as visual study aids, but most certainly it was an activity which required very little effort to dabble in and offer as just one of many other types of artifacts for sale. The following brief accounts of other makers is based upon existing physical evidence or clear documentary evidence.

In the Ashmolean collection five distinct sets of *impronte* are by Giovanni Liberotti of whom little else is known other than the details on his shop label and an entry in a guidebook for Rome dated 1869, which lists *Liberotti, 36 via Condotti.* This evidence suggests that Liberotti came into the trade around the mid-nineteenth century; he may have been working for another maker and after learning the trade set out on his own. His sets are typical of other earlier and

79 La Grice, *Walks...* pp.225-6
80 Murray, *Handbook ...* pp. 24-25

contemporary Roman works. The examples in Oxford are comprised of folio volumes (see Ashmolean catalogue Nos. 18, 19 a,b,c , 25) and others are in stacking wooden trays of about 200 casts each (catalogue Nos. 32, 42). No reference to his work has turned up in any of the biographical dictionaries or contemporary Roman guidebooks dated prior to 1869. The shop label reads as follows:

> Giovanni Liberotti
> incisore di camei
> Collezione d'impronte cavate da gemme antiche e moderne, esisenti nei gabinetti d'europa. In detta collezione si trova il Museo Vaticano, Campidoglio, Firenze, Napoli, Parigi, Sommariva e le opere piu celebri delle gallerie.
>
> Roma Via del Babuino N.105 (see figs. 49 + 50)

Pietro Bracci is represented by two incomplete sets with two individual labels incorporated into one single grouping of about 360 casts (see catalogue entry No. 66). Keller's guidebook of 1824 contains a listing in the section of mosaicisti for

> Pietro Bracci: Fabbricante di smalti di ogni colore, dette paste, collezione d'impronte in scajola di cammei ed intagli antiche e moderne.
> Via S.Andrea delle Fratte n.31.

The shop labels, one type set and the other handwritten, read as follows:

> Presso Pietro Bracci fabbricante di smalti d'ogni colore dette paste, ritrovansi collezioni d'impronte d'antichi, e Moderni incisori di gemme principiando dallo stile Egizio, ed in seguito l'Etrusco, Maniera Greco-Etrusca; Greca: Greco-Latina: Latina; stile del Cinquecento, ed in fine i migliori autori moderni a prezzi onestissimi.
> Alloggia in via di capo le Case incontro la piccola porta di S.Andrea delle Fratte Num. 31, in Roma. (see figs. 51 + 52)

The second handwritten label is somewhat shorter and contains the following information:

> La presente collezione, ed altre raccolte si Antiche che moderne ritrovanli presso. Pietro Bracci fabbricante di smalti d'ogni colore dette paste tanto in'incavo che in rilievo.
> Alloggia in via di Capo le Case incontro la piccola porta di S'Andrea della

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Fratte N.32. Roma.

The Ashmolean collection also contains a single folio volume, date unknown, of forty nine (originally fifty, but one is missing) casts made by

M. Krause. Galleriediener I. Klasfse und academischer Kunstler im Antiquarium des Konigs Museums zu Berlin. and entitled

50 Gemmen-Abdrucke der Konigslichen Sammlungen in Berlin. (see fig. 53)

It was not unusual for foriegn artists to have studios in Rome as sculptors, painters etc. In La Grice's 1844 guidebook is this entry on page 270.

Advertisement
Carlo Brandenburg, sculptor etc.
via Capo le Case Num.49,

Begs leave respectfully to inform the lovers of the fine arts, that his studio contains several thousand objects in scajola, with impressions of illustrious men of every country, and casts illustrating the Illiad and Odyssey of Homer, the Aeneid of Virgil and the Metamorphoses of Ovid.
Brandenburg has obtained from the Cardinal Camerlengo the exclusive right of publishing Thorvaldsen's Triumph of Alexander, and several other of his most admired works, described by the Count Hawks La Grice in his work entitled, Walks thro' the studj[sic] of the Sculptores at Rome.

From the Uffizi archival correspondence concerning Bartolomeo Paoletti's commission for the Grand Duke of Tuscany we know that the carver Gaspero Capperoni manufactured *impronte* and was a competitor of Paoletti's. Capperoni was born in Rome on the June 20th, 1761 and died at the age of forty seven on December 31st, 1808.[81] He is known to have signed his gems in Italian or Greek letters CAP, and twelve of his works are in *impronte* in the Cades collection in the Museo di Roma.[82] There are no known collections by him existing today.

Francesco Carnesecchi is another dealer reported in reliable sources as having been active in the first half of the 19th century selling *impronte*.[83] This same maker is also registered in Keller's guide with an entry in the Mosaicisti section

81 Righetti, *Incisori...* p. 44-45
82 Ibid p.45
83 Haskell and Penny, *Taste and t...*p.98 From a set in the National Museum of Wales, Cardiff.

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Carnesechi, Francesco. Mercanti di mosaicisti, camei, art etc. Via Condotti n.74 84

Based on the evidence presented and the entries for various dealers in Keller's book it might be safe to assert that most of the individuals listed in his section entitled *Mosaicisti, e negozj di belle arti, e di mosaico* are all likely to have made and sold collections of *impronte* to tourists in Rome.[85] It is problematic to realize that even from a variety of sources it is nearly impossible to compile any comprehensive overview of the activities of these makers. To exemplify this dilemma consider that sets of *impronte* by makers such as Carnesechi exist in the Museum of Wales, Cardiff, but in Keller's guide there is no mention of his being a maker of *impronte*. Then there is the issue of Liberotti whose works are not uncommon but no biographical information has come to light and neither is he mentioned anywhere in any number of contemporary guides to Rome except for the single line in Murray's guide of 1869 (which suggests that he became active in the trade well after the mid 1840s), but for his *impronte* containing his name and address he would remain all but anonymous. Then there is the case of individuals, for example Capperoni, who from contemporary sources (the commission for the Grand Duke of Tuscany) are known to have been active as makers of *impronte* but there are no verifiable examples of their work known today. Finally, there is the unique problem of the maker Guiseppe Toricelli whose *impronte* are represented in private collections in the United States[86] but not in any public collections, and whose gemstones are in the British Museum,[87] but not referred to in any of the standard biographical dictionaries.

The entry for Murray's Guide,1869, is very short and only mentions a few makers:

> S.39: Sulpher Casts of Medals and small bas reliefs called intagli and impronti-Odelli, 67 via delle Stamperia Camerale, he has published a catalogue of 700 edited by the Instituto Archaeologico at the Capitol: Cades 456 Corso: Liberotti 36 via Condotti: Paoletti 86 via della Croce: A Lachini 70

84 Keller,*Elenco*... p.70

85 See appendix B

86 Miller, *Cameos Old* ...pp.138-9

87 Richter,*Romans* ... p.19

via Condotti, for the casts of the most celebrated intagli. [88]

OVERVIEW OF NAMED SETS OF *IMPRONTE* IN THE ASHMOLEAN COLLECTION:

Maker/subject	Set Numbers:	Address:
Amastini	44a/b	
Bracci	66	Capo La Case no.31
Cades	41, 47,57,58,60,61,87,151,162b drawer 's'	Via del Corso no.456/28
Dolce	45a/b/c/d, 73(?), 163 drawers xv,xxv-xxx	
Krause	51	Berlin
Liberotti	18,19a/b/c, 25, 32, 42	Via del Babuino no.105
Lippert	158a/b/c	Dresden
Paoletti Family	20a/b, 21, 22, 23, 24 26a/b, 27a/b, 28a/b/c, 30, 31(?), 35, 37, 40, 48, 49, 50, 55, 62	Piazza di Spagna 49, Via della Croce 86
Poniatowski	53a-h, 119,120,123,133-7,146-7, 148a/b,149a/b 162 drawers xvi,xvii,xviii,xxi,xxiii	
Tassie	1-16,90-93, 151	United Kingdom

Although the great majority of *impronte* were made by minor carvers who dabbled in numerous artistic businesses, some attempted scholarship, and other makers of *impronte* were no more than mere souvenir peddlers. Never the less, a few of the artistic luminaries of the era saw fit to produce their own sets of *impronte* showcasing their own works. Notable in this category were Pichler,[89] Nathaniel Marchant (1739-1816)[90] and Edward Burch whose works survive today at Sir John Soane's Museum, London, both of whom produced standard sets of sulpher and plaster *impronte* accompanied by catalogues and widely distributed.[91] Marchant issued a set by subscription in 1792 entitled *100 impressions from Gems,* which was purchased by a host of distinguished

88 Murray, *A Handbook* ...p. xxviii, Note: The Paoletti mentioned here is in all likelihood Francesco who was known earlier to be at 86 via della Croce. see the previous section on the Paoletti Family.

89 Seidmann, Gertrud,*Nathaniel Marchant, Gem Engraver 1739-1816* (Published in the *Journal of The Walpole Society* vol.LIII (1987) and 1990) pp.8, Presumably this is a reference to Giovanni Pichler, but it is not cited as such, referred to only as Pichler. As mentioned previously other Pichlers were active gem engravers during this period and may have also made use of *impronte.*

90 Righetti, *Incisori...* p.85

91 Confirmed in a letter dated 13th June, 1997, from Helen Dorey, Deputy Curator of Sir John Soane's Museum, 13 Lincoln's Inn Fields, London WC2A 3BP.

patrons,[92] such as Prince William Henry, Duke of Gloucester, The Earl of Bristol, and G.J. Cholmondeley amongst others. This practise was well known and is even mentioned in the letters of John Flaxman to his family in England

> Dear Father and Mother, Rome Aug 30th, 1788
>
> ...Mr. Marchant has sent a great number of plaisters to England and it is very likely he will let you mould some of these...I shall desire him to presents[sic] my respects to Col. Campbell if to desire him if he wants any of the plaisters he brought to England moulded, to let you do them.[93]

While invaluable as study tools for scholars these sets were also intended to be advertisements of the types of works available in pietra-dura from the aforementioned artisans. These sulphers also served as proofs for commissions being worked on.[94]

Last but certainly not least is James Tassie of Edinburgh, who has perhaps claimed the most enduring fame as a maker of copies of gems etc. Tassie lived from 1735 to 1799[95] and issued an enormous collection of glass paste casts in 1791. He also sold boxed sets of plaster and sulpher casts from a shop in Leicester Square in the 1790s.[96] The very brief mention of Tassie in this work is for two reasons; John P. Smith has recently written an exhaustive and most comprehensive work devoted to Tassie and his art, and Tassie is outside the main scope of this work which is primarily concerned with the Roman *impronte* makers.

This survey of known makers is of course incomplete, as no doubt other sets exist in private collections or museums which have not yet come to light, and of course the thousands of anonymous collections are not necessarily by the hands of known makers, although some must be. Given the nature of the material and the purpose for which they were made it is unlikely that a comprehensive

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92 Seidmann, *Nathaniel...* p.15

93 From the letters of John Flaxman in the British Library Ms.Add.39780 folios 45v. copied verbatim.

94 Seidmann, *Nathaniel...*p.13

95 Forrer, *Dictionary...*vol VI p.22

96 Smith, John P., *James Tassie* ...p.22

understanding of the activities of these individuals will ever be accomplished. As mentioned previously, and as is clearly indicated in the descriptions of the type of activities by the makers listed in the various guidebooks and dictionaries, a number of the makers of *impronte* had their hands in many different artistic and business pursuits related to the art of working in miniature. Furthermore, a large number of these individuals are not typically renowned as carvers exclusively. In matter of fact, in Keller's index of artisans most of the *impronte* makers discussed here are listed as being primarily *Mosaicisti, e negozj di belle arti, e di mosaico* [97] indeed the primary occupation listed by Bracci, Carnesecchi, Cades and Paoletti is that of Mosaicisti or Fabbricante di smalti, which are more commonly known these days as micromosaics.[98]

An aspect of the business of supplying *impronte* souvenirs to individuals on the Grand Tour which has proven difficult to draw any general conclusions about is the matter of the cost of these sets. Nothing explicit, like receipts, have survived with the sets to indicate their price, but some specific and some less reliable accounts have survived which give some idea of the per unit cost of these copies.

As previously indicated in the section about Bartolomeo Paoletti's commission for the Grand Duke of Tuscany, prices were discussed and it is assumed that these were for glass paste impressions as prices for sulpher were mention briefly and separately from the initial price. Nevertheless a quote from Gaspero Capperoni in 1796 was five paoli for small pieces and ten paoli for large pieces, however the contracted price with Paoletti was for thirteen paoli per piece, five paoli per sulpher, and an additional forty scudi for expenses. In the 1780s Christian Dehn is reported to have sold his sulphers for one paoli each which was "welches sehr hoch kommt" or quite a high price.[99] These prices are all meaningless without some sort of context or equivalency of value, which is also problematic as "The translation of nineteenth century prices into modern equivalents is notoriously

97 Keller,*Elenco*...pp.70-1, In fact thirty one mosaicisti are listed here alone, most in and around the Piazza di Spagna.
98 Untrach,*Jewelry*... p.593
99 Heres, *Daktyliotheken*... p.67

misleading"[100] Also, another problem during this era is that there was a baffling array of coins used in the various parts of Italy :

> In Venice alone, for instance, the Tourist was faced with mastering the worth of lire, soldi, picholi, grosses, louis d'ors, sequins, ducatoons, silver crowns, genoins, philips, testoons, julios, three sorts of pistole, and four sorts of ducat, after having just learned in Tuscany, perhaps, the difference between the sequin, the scudo, the livre and the paul.[101]

with these caveats in mind the following can be said: a scudi is comprised of ten paoli[102] and another unit called a zecchini is comprised of two scudi. Various sources have indicated a rough exchange rate for the Pound Sterling in this era as being four Scudi for one pound.[103] Assuming that the prices charged by Paoletti (5 paoli per sulpher) to the Grand Duke were somewhat inflated and that Dehn's would have been closer to a normal amount the price for a set of one hundred *impronte* in sulpher would be from approximately £2.50 to conceivably as high as £50. The same sets in glass paste would have been considerably more expensive, nearly three times the price of that for sulphers (the Grand Duke paid 13 paoli for 290 glass pastes) The fact that they were available, but so few are known suggests two things: these were either special commissions available upon request or were the master moulds for the manufacturer. Whatever the case, a set in glass at thirteen paoli each from Paoletti would have cost 377 scudi, a little over £94, a very considerable sum particularly when it is known that Marchant was able to sell his new gemstones for sums in the 400 scudi range[104] and antique cameos were reputed to have been sold for as much as 4000 scudi.[105] At a slightly earlier time James Tassie sold "Messrs. Wedgwood and Bentley to 70 impressions in Sulfer, at 2d. a piece totaling 11[s] 8[d]"[106] which, although almost

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100 Haskell, Francis, *Review of 'Poniatowski e Roma'* in The *Burlington Magazine* , vol.CXII 1973 p.548

101 Hibbert, Christopher, *The Grand Tour* (Weidenfeld and Nicolson, 1969) p.104

102 Heres, *Daktyliotheken...* note '55 Paolo: bis 1867 Silbermunze des Kirchenstaates; entspricht 1/10 Scudo.' p.67

103 Ford, Brinsley, *Thomas Jenkins: Banker, Dealer and Unofficial English Agent* , The Apollo, June 1974 p.417 and: Seidmann, *Nathaniel ...* p.13

104 Seidmann, *Nathaniel...* p.13

105 Ford, *Jenkins...* p.417

106 Smith, *Tassie...*p.11

thirty years earlier than Paolettis activities, is a price consistent to those charged circa 1800. This suggests that prices and demand were relatively stable. Prices for the early nineteenth century are not mentioned in any documentation come across as yet, excepting a label note made on the back of number No. 070 in the Ashmolean Collection which reads *by L.Maynard, 1826; his gift to Dr.N.W.Mansel; 'Price 21/- ea without frame';from the collection of the Duc d'Orleans* . The latest price mentioned anywhere was for sets of Cades's *Centurie,* which were sold for six scudi per hundred *impronte* in 1868. In 1869 a scudi was equal to 3 shillings, 11 and 3/4d,[107] which reflects the degree to which the value of these gem related items had sunk to since the heyday of the early 1800s.

Some other issues also need to be considered. The sulpher *impronte* seem to have declined in popularity after about 1810; though it is not explicitly clear why this is, the cost may very well have been a factor as also would the noxious properties of sulpher itself which, if being used in the crowded conditions around the Piazza di Spagna, would have been very unpopular with neighbours and tourists alike. They may simply have fallen out of fashion with the majority of the customers. Price seems to have been the driving factor though, because as early as the 1750s Lippert was motivated to develop his special paste, essentially a plaster of Paris made from particularly fine and pure alabaster or selenite, so that he could undercut the prices of Dehn's sulphers.[108] This would also have the effect of widening his customer base and increasing his net income. His glass pastes were very expensive and difficult to manufacture with any degree of consistency,[109] a problem also faced by James Tassie[110] and for these and other makers of *impronte* this was their primary source of income in most instances. To support further the supposition that cost made sulpher *impronte* undesirable was the fact that as souvenirs they were meant to be lower cost alternatives to those who would not have bought bronze statuettes[111] and statuettes could be

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107 Murray, *A Handbook...* p.xlvi

108 Heres, *Daktyliotheken...* p.67

109 Ibid p.67

110 Smith, *Tassie...*p.21 John Smith also related to myself that with larger pieces attempted by Tassie the failure rate was over 80% and glass pieces bigger than about 6 inches in diameter were completely unfeasible.

111 Haskell and Penny, *Taste and* ... p.98

had for as little as five zecchini to as high as 50 with an average price around 20 zecchini. Paoletti was paid 157 zecchini for six hundred and thirty one sulpher *impronte* in 1797. This is hardly a low cost souvenir, and with plaster, gesso and scajola readily available and presumably much cheaper, considering the quantities used in general construction, it is no wonder that 'plaster' *impronte* dominate the known collections as it would have made a much higher profit margin possible.

Certainly by the 1860s the vogue for collecting and studying casts of all descriptions had waned, and the same is true of the popularity of *impronte* as souvenirs and collectible study aids. The decline was gradual and there is no one explicit reason for the disappearance of this subject, rather a number of factors all contributed to its decline. The nature of the 'Grand Tour' had been changing steadily since as early as 1815, when at the end of the Napoleonic wars travel was again easier to arrange. Previously the trip had been long and adventurous, and a unique expression of aristocratic wealth and breeding, but by the 1830s the railways had grown all over Europe and regular steamship travel was begun and by the 1860s Rome could be reached from London in as little as sixty hours.[112] This technological change made travel more accessible for those possessed of less economic means. Other technological changes also affected the popularity of *impronte* as study aids. The development of photography from the 1840s and the proliferation of genuine 'lifelike' images of art made possible by photography rendered *impronte* less desirable. Ultimately though, the faddishness of the collecting mania so typical of the late 18th and early 19th centuries transformed, and the *impronte* makers and other makers of miniature souvenirs, such as bronze statuettes, neglected to keep up with changes in taste:

> They failed to take account of changes of taste crucial to the learned, and illustrated a range of antique statues which differed hardly at all from the sculpture found in cast collections of the mid-eighteenth century. And yet in the interval new standards of appreciation and new interpretations of antiquity had been proposed and debated with quite unprecedented energy.[113]

112 Hibbert, *Grand Tour...* p.246

113 Haskell and Penny *Taste and* ...p.98

This change in taste was the crucial factor for the decline of *impronte*. They had been very intimately linked with the connoisseurship of gems (but collections typically represented few gems at all) and neoclassical scholarship, which was no longer *avant garde* in terms of taste and knowledge. Furthermore, after the exposure of the Poniatowski gems as being fraudulent in 1839-42 the confidence in the study and collection of gems, an already declining field of academic interest, completely collapsed, and dragged down the related activities of the practise of collecting gems, such as owning *impronte*, and discouraged new interest in the study and collecting of gems. So rife was uncertainty over the authenticity of any glyptic items which had been so esteemed for their own merits fifty years earlier, that they had been reduced to decorative accessories essential to any woman's toilet rather than considered as 'fine art'.

CHAPTER FOUR:

The Subjects Depicted on Sets of *Impronte*

Chapter 4
INTRODUCTION

The popularity of casts of all sizes as study aids, decoration and as souvenirs of the Grand Tour is well documented. However, concerning the perception of *impronte* there has developed some confusion over the predominant nature of the themes depicted on them. While the collection and study of casts fell out of fashion, and was virtually rejected as a useful source of scholarship, many classicists continued to value the wealth of information conveyed by *impronte*. The problem though is that those who maintained an interest in *impronte* had particular interest in the gemstones of the ancient Greeks and Romans, as well as those executed by celebrated neoclassical carvers such as Marchant, Burch, Cerbera, Girometti and others, and subsequently have interpreted *impronte* and gems as being one and the same. This is not completely invalid as it is true that in the early part of the 18th century the production of miniature casts was intended to duplicate and disseminate cameos, intaglios, coins and medals owned by collectors such as the Duc d'Orleans, and to serve as advertisements of a sort for the pietra dura available from working carvers supplying commissions to the nobles of Europe. But by the 1780s the focus had shifted from that of true gems to miniature depictions of famous locations, statues, paintings, portraits of living individuals, mythical themes and historical sequences. From the issue of James Tassie's oeuvre in 1791 the nature of *impronte* had irrevocably changed and it is no longer accurate to refer to 'gems' and 'impronte' as synonymous terms. Gems such as cameos and intaglios had been made with specific decorative or functional purposes and were intended to stand alone as works of art in their own right. The vast majority of subjects depicted on *impronte* did undoubtedly have original masters made from hard stone but the purpose of these engravings was to serve as master moulds for the wholesale production of casts. In the previous chapter it was made clear that the craftsmen producing *impronte* did have the requisite skill as carvers, so making moulds from shell, stone, or conceivably marble or even sulpher, was not beyond their capability. Many of them were also skilled in the making of mosaics and other glass products and Keller observes that:

> Other uses of paste are the making of impronte in sulpher and in scajola: these cost very little and are very interesting for after having spent little one

> has inside a very complex history of art, and the stories of ancient mythology. The impressions come arranged in clever boxes which are easily viewed, or set in the manner of a book with a circle of gilded paper on each so that around each is a strong edge. They are numbered so that one may easily find a description from a catalogue. They have the aim of displaying the scope of the principal art of the Egyptians and Etruscans, continuing with the Greeks and Romans. From this perfection to the decadence of the arts. Other collections are historical and are purposefully arranged in chronological order as is the river of history. Other sets not only contain for serious study the first emperors of Rome, famous captains, kings, philosophers and poets. Still others explore the mythological meanings of the philosophies of the ancient nations. Also to be had are collections of the works of celebrated artists in this time, like Pichler, Marchand[sic] and others; or depictions of the works of Thorvaldsen or mimicking Canova and represented in a noble manner. There are yet still collections of portraits of modern royalty, artists and living poets. Another preparation which doesn't mimic the fine arts are the collections of ancient coins and medals in sulpher. These are made with clever artifice, so that they seem to conserve the colour, shape and relief of the original so that the impression in two parts can be made one and the same as the original. They are indistinguishable save for the weight of the subject. Cav. Sig. Aurelio Visconti, the celebrated numismatist, has made numerous interesting series for the history of the Greek and later works. These casts are elegantly displayed in boxes numbered and directly relate to the inscriptions and the epochs. 1

It is clear even from this brief contemporary description of the purpose of *impronte* that they were not exclusively depictions of 'gems' but miniature visual representations of the recognized important works of art that held the fascination of scholars and tourists alike. In fact most of the existing collections of *impronte* in museums today contain a wide variety of subjects and themes covering all those mentioned by Keller. Furthermore, many popular sets by Paoletti and Cades feature distinct sections devoted to the collections of popular private collections and museums (often one and the same). A typical range are depictions of Roman emperors, illustrious men, medals and coins, the Museo Capitolino, Museo di Napoli, Museo Vaticano, Villa Albani, Museo di Firenze, Museo di Parigi, Museo Sommariva, Monumenti di Varji Luoghi, Monumenti Diversi, works by Canova, Thorvaldsen, Gibson, modern artists, Renaissance painters, Marchant, Pichler, Cerbara, Girometti, Poniatowski gems, Mythology, portraits ancient and modern, architectural devices, famous buildings, paintings

1 Keller, *Elenco...* pp.12-13

and details from paintings, spintriae,[2] and erotic material. Other variations on similar themes are also encountered. Clearly the purpose and function of *impronte* is didactic and they are in effect the 18th and 19th century equivalent of postcards, slides and art books that are favourite souvenirs of modern visitors to museums and galleries. The following is a brief discussion of some of the more predominant themes that occur in collections of *impronte* and an examination of two very contrasting sets, one a typical tourist's collection by Paoletti and the other an erotic set by an unknown maker.

The collection of *impronte* by Paoletti at the University of St Andrews is lacking its original manuscript catalogue (see figs. 6, 31, 57, 58), but the Ashmolean collection has a set by Paoletti with an original catalogue that is virtually identical to that at St Andrews and these two sets provide a very decent overview of the typical subjects and quantity of *impronte* encountered which were available and appealing to the average tourist in Rome. The Ashmolean set contains 302 *impronte*,while the St Andrews set was originally numbered to 307, with two missing pieces giving a present total of 305. These sets have nearly identical series of subjects, but curiously, a different ordering and grouping arrangement from which some general conclusions can be drawn about the production and distribution of these collections.

As mentioned previously, the variety of subjects depicted on *impronte* is prodigious and a lifetime of work might be necessary to describe each and every one, therefore it is my intention to discuss only those general groupings most commonly encountered on sets at the Ashmolean, excluding Tassie and Henning material which is outside the scope of this work, and in more detail the collection at St Andrews.

The first, and smaller set at St Andrews has three stacking wooden trays (See fig. 58). The base tray has a metallic ring attached to the top edge and nine casts set on blue paper and covered by thin glass (the rings and glass are not known to have been installed by the makers; this feature is therefore likely a later addition). In total four casts are missing, numbers 7 *Leonardo da Vinci*, 20 *Cicerone*, 22

[2] Spintriae are erotic coin-like tokens considered to have been used at Roman brothels. See Buttrey, *The Spintriae as a Historical Source.*

Terrenzino, and 24 *Virgilio*. The middle tray is identical excepting that it lacks the metallic ring, and one cast is missing. The third tray is the lid and has a label listing the figures represented and the Paolettis' name and address [see below]. The trays are 9 1/2" long (24.13 cm), 6" wide(15.24 cm), 1 1/2"(3.81cm) deep.

Uomini Illustri

1. *Lodovico Ariosto Poeta*
2. *Petrarca Poeta*
3. *Torquato Tasso Poeta*
4. *Dante Aligheri Poeta*
5. *Gio. Boccacci Poeta*
6. *Nicolo Macchiavelli Scrittore*
7. *Leonardo Da Vinci Poeta*
8. *Raffaele D'Urbino Pittore*
9. *Tiziano Pittore*
10. *Michelangelo Buonarroti Pittore,Scultore, Architetto.*
11. *Antonio Allegri Detto il corregio Pittore.*
12. *Galileo Galilei celebre Matematico*
13. *Licurgo Filosofo*
14. *Pericle Capitano*
15. *Eschilo Poeta Latino*
16. *Archimede Geometra*
17. *Omero Poeta Greco*
18. *Platone*
19. *Socrate*
20. *Cicerone Oratore*
21. *Mecenate Protettore Delle Arti*
22. *Terrenzio Poeta Latino*
23. *Giulio Cesare*
24. *Virgilio Poeta Latino*

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Si Fanno in Roma Da Bartolomeo Paoletti, E Pietro Figlio, Dimoranti Di Studio in Piazza Di Spagna Num° 49.

The second, larger set is complete except for the absence of the lid; it has also been altered with the addition of suspension rings at the top of the trays and glass on the front which has contributed to some damage to the *impronte*. The Ashmolean set is complete with a lid and manuscript catalogue and has not been altered by the addition of any accessory items. The range and order of the two sets compares as follows (for a complete descriptive catalogue see appendix C):

St Andrews Impronte #'s	Group:	Ashmolean's Impronte #'s	Group:
1-49	Museo Vaticano	1-49	Museo Vaticano
50-107	Museo Capitolino	50-107	Museo Capitolino
108-128	Uomini Illustri nel Museo Capitolino	108-128	Uomini Illustri nel Museo Capitolino
129-141	Villa Albani	129-170	Monumenti Diversi
142-157	Museo di Firenze	171-182	Villa Albani

Chapter 4

158-177	Museo di Naploi	183-199	Museo di Firenze
178-189	Museo di Parigi	200-218	Museo di Napoli
190-224	Museo Sommariva	219-230	Museo di Parigi
225-268	Monumenti di Variji Luoghi	231-265	Museo Sommariva
269-307	Opere di Canova e Thorvaldsen	266-287	Opere di Canova
		288-302	Opere di Thorvaldsen

As is evident from the lists above the first 128 *impronte* in each set are from the same sources, the remaining groups are entitled slightly differently and are set out in a different order: St Andrews 225-268 Monumenti di Variji Luoghi and Ashmolean 129-170 Monumenti Diversi (but contain the same subjects), and Canova and Thorvaldsen are in distinct sections in the Ashmolean collection as opposed to the St Andrews collection, which is combined in the title but divided in arrangement, with *impronte* numbers 269-291 copying works by Canova and numbers 292-307 works by Thorvaldsen.

These were (and some still are), well known collections of art, sculpture, architecture, gems, coins, etc., that had a strong appeal to the scholar and connoisseur visiting Italy on the Grand Tour. While tourists were expected to study and make sketches of what they saw, they also desired physical mementos, be they the actual work of art – when at all possible – or a full sized or, as is the case with *impronte*, miniature, cast replicas of the great sights of Italy.

SUBJECTS: Museo Vaticano and Museo Capitolino

The Museo Vaticano is self evident as the collection of the Roman Catholic church which had been built up over the centuries by the Popes. The Museo Capitolino (or Anglicized, The Capitoline Museum) is the distinct result of Clement XII Corsini's (Pope between 1730-1740) initiatives between 1730 and 1740. During this period the Papacy was facing grave financial difficulties and instituted a very successful lottery which defrayed the costs of work on the Trevi Fountain and the Facade of the Lateran and resulted in the establishment of the Museo Capitolino, which in its early years was comprised of a large portion of the first Albani collection sold due to financial problems (purchased by Clement XII

in 1733-4)[3] and other famous pieces such as the *Dying Gladiator*.[4] His successor, Benedict XIV Lambertini (1740-58) made considerable additions to the Museo Capitolino and personally established the Egyptian Museum.[5]

Villa Albani: (see fig. 57)

The collection of the Villa Albani was the result of the efforts of a long family line of ecclesiastics, antiquarians, collectors and patrons – most notable and important were Giovanni Francesco Albani – Pope Clement XI, Alessandro Albani – Cardinal, and Annibale Albani – Cardinal. However the most active collector was Alessandro Albani (b. Urbino, 15 Oct, 1692; d. Rome, 11 Dec 1779),[6] in 1761 made an honorary member of the Society of Antiquaries of London, who was also instrumental in encouraging and welcoming British 'Grand Tourists' in Rome. For example, when in 1763 George III's brother the Duke of York was planning to visit Italy, Albani was quick to offer a place to stay and make arrangements for a knowledgeable guide of Rome. At first Albani recommended Thomas Jenkins as "he was born a subject of His Britannic Majesty"[7] and shortly afterwards wrote again to suggest that Winckelmann might be better qualified to satisfy the curiosity of the Duke.[8] Albani was the intended recipient of Winckelmann's estate, but Winckelmann died[9] before he was able to sign his amended will and his belongings went to his nephew Muzzell instead. On account of his strong ties to Britain, as well as the extraordinary collection at his Villa in Rome, it is no wonder that examples of fine arts of the Albani's are featured in collections of *impronte* so favoured as souvenirs by British tourists in Rome.

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3 Turner, Jane (Ed.) *The Dictionary of Art* (Grove, 1996) vol. I p 533

4 Broeder, Frederick den (ed.). *Rome in the 18th Century* (The University of Connecticut Press, 1973) p.11

5 Broeder, *Rome...*p.12

6 Turner, *Dictionary vol.I...*p. 532

7 Lewis, *Connoisseurs...* p.207

8 Lewis, *Connoisseurs...*p. 208

9 Ibid pp.225-6 Lewis also makes the observation that in all probability his murder was on account of his revealing his personal wealth whilst attempting to pick-up a man named Arcangeli in Trieste, the last of Winckelmann's homosexual indiscretions.

Chapter 4
Museo Sommariva: (see. fig. 10, No. 26b)

Is a collection of art from the private Villa on lake Como (now known as Villa Carlotta at Tremezzo) a country house near Paris ('Villa Parigi' in sets of *impronte*), and a house in Paris (near what is now the Boulevard des Capucines) and just outside Milan, of Giovanni Battista Sommariva, an Italian statesman, patron and primarily a collector of French Neoclassical art with mythological subjects; which he favoured because they tend to stress the theme of peace and its delights.[10] Sommariva was closely involved with such painters as Jacques-Louis David, Girodet, Prud'hon and nearly all of the other top artists of the era between 1789 and his death in 1826. Francis Haskell characterizes him as being "in fact beyond all doubt, the most significant patron in early nineteenth century France outside the Emperor Napoleon and his immediate family."[11]

Nowadays Sommariva is largely forgotten, in much the same manner as other celebrated artists and patrons prominently featured in sets of *impronte* whose fame, in the UK, was not enduring, eg. Thorvaldsen, Gibson, Cerbera, the Saulinis etc. Despite this relative obscurity he was a widely known figure in his day and elicited a wide spectrum of opinion: everything from being reviled to renowned. And much like other 18th century figures associated with art and politics he had a colourful and checkered life. He was born to a poor family and his first job was reputedly as a barber's assistant, but he gained the support of local nobility and became a successful and wealthy barrister.[12] However the rapid accumulation of personal wealth has led to suggestions that he was a less than scrupulous practitioner of the law and when in 1796 the French invaded Italy he seized the opportunity to advance himself personally "like so many ambitious , intelligent and unscrupulous men of low birth all over Europe – opportunities which he could have hardly dreamt of before, he seized with both hands."[13] His

10 Turner, *Dictionary*...vol. 29 p.59

11 Haskell, Francis, *An Italian Patron of French Neo-Classical Art* (Clarendon Press, Oxford. 1972) p.6 This article by Francis Haskell is one of the few works on Sommariva done this century, and one of the only articles in English. Another modern work he referred me to, but I was unable to consult was by Fernando Mazzocca *G.B. Sommariva o il borghese mecenate: il 'Cabinet' neoclassico di Parigi, la galleria romantica a Tremezzo* (Brera, Milan. 1981)

12 Ibid p.8

13 Ibid p.9

political activities did the most damage to his reputation in Italy, for it was in Sommariva's house that Napoleon met Count Melzi (the future head of state of the Italian Republic under Napoleon's Presidency – a position Sommariva wanted for himself) and between 1800-1802 Sommariva was the virtual dictator of Milan, a position he used to further enhance his personal fortune and reputation for questionable conduct.[14]

Ultimately he made great efforts to rehabilitate his image by becoming a very active patron of the arts, and was largely successful in this endeavor; he regularly commissioned works by Canova, such as *Palamedes*, *Terpsichore* (both shown as Paoletti *impronte* in the section devoted to Canova, numbers 275-276, and 216 in the section entitled *Museo Sommariva*) and he was esteemed as the owner of Canova's *Penitent Magdalene*.[15] He also commissioned many pictures by Prud'hon such as a portrait of himself (Paoletti *impronte* 219, labelled *il ritratto del la Conti Sommariva nella sua Villa in Parigi)* and *Young Zephyr* (also a Paoletti *impronte* 204), he purchased the Thorvaldsen frieze, *Triumph of Alexander* and another portrait bust of himself in the antique style.[16] His reputation was given a further boost by his romantic involvement with the aged Madame d'Houdetot, seventy five when he met her,who was in her youth friend of Diderot, Voltaire, Benjamin Franklin, a mistress of the Marquis de Saint-Lambert, and the lover of Jean-Jacques Rousseau and inspiration of his *Confessions* (1780).[17] After he died his son Luigi moved a portion of the Parisian collection to Lake Como and it was not until after Luigi's death in 1838 that the collection was dispersed by his widow at auction in Paris, by Paillet, 18-23 Feb 1839.[18]

THE SCULPTORS CANOVA, THORVALDSEN AND GIBSON: (see. figs. 54-6)

One final, predominant, series of subjects that occur in sets of *impronte* are those

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14 Ibid pp.10-11
15 Ibid see plates 5, 12 and 13 respectively.
16 Ibid p.17 and plates 15 and 21.
17 Ibid p.19
18 Turner, *Dictionary*...vol 29 p.59

sections devoted to illustrating views of famous works by famous sculptors. During the 19th century all three of these men were virtually household names and were widely celebrated for their artistic skill. But as with so many other subjects featured in *impronte*, with the exception of Canova, Thorvaldsen and Gibson too have faded into relative obscurity as their style of work fell out of fashion.

Canova's life (b. Possagno, 1 Nov., 1757 and d. Venice 13 October, 1822)[19] and career have been extraordinarily well documented and so it is unnecessary to go into any great detail about him here. He was the undisputed favourite of British tourists in Rome as his style was immensely appealing to the aesthetic sensibilities of the day, and no trip to Rome would have been complete without making a visit to Canova's studios just off the Piazza di Spagna. In following the philosophical dictates of Winckelmann, Canova was acknowledged as the last great neoclassical sculptor and his works nicely bridged the old tastes with the growing Romantic movement. In fact, so influential was Canova's opinion in Britain that he may have been instrumental in persuading the British Museum to purchase the Elgin Marbles, so full of praise was he that doubtful members of the British Museum changed their minds and recognized the significance of the Marbles.[20] Canova's works also so inspired and moved Keats (a long time resident of the Piazza di Spagna, where he died) to write such works as *Ode to Psyche* and *Endimyon*.[21]

However, Canova was not universally popular and in fact the Germans generally disparaged and dismissed his work and the French, while admiring, were not as overwhelmed as the British. The Northern Europeans were more partial to the Danish sculptor Bertal Thorvaldsen (B. Copenhagen Nov. 1768/70?, d. Copenhagen Mar. 24, 1844)[22], who arrived in Rome in 1797 and remained there until 1838, and he quickly made a name for himself amongst the artists in Rome.

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19 Panzetta, Alfonso,*Dizinario Degli Scultori Italiani Dell'Ottocento* (Umberto Allemandi and Co.,1989) p.46

20 Favoretto, Irene *Reflections on Canova and the Art of the Antique* in Sisinni, Francesco (Ed.) *Antonio Canova* (Marsilio, Venice 1992) p.61

21 Lombardo, Agostino *An English Paradox* in Sisinni, p.7

22 Eitner, Lorenz in *Encyclopedia of World Art: Volume XIV* (McGraw-Hill, London. 1967) pp.56-7

Thorvaldsen and Canova were companionable and, for whatever reasons, did not view each other as rivals. Thorvaldsen's works were more formal, not as highly finished as Canova's and more strictly classical in style which held more appeal to the austere Germans, Poles and Danes whose nobles commissioned numerous statues and friezes from him.[23] Although one of the most popular artists of his day, after his death Thorvaldsen's reputation quickly waned as his work was considered to be lifeless and inexpressive adaptation of classical forms favoured by the bourgeoisie, and aside of Denmark that opinion has not really altered.

The third individual whose works of sculpture are often featured in sets of *impronte* is John Gibson R.A. (b.Conway, N.Wales 1790, d. Jan.27, 1866), who arrived in Rome in 1817 and although an accomplished carver in Britain he furthered his skills as a sculptor as a student of Canova's from 1817 to 1821. After establishing his own studio in 1822 he became a friend of Thorvaldsen's and the two often exchanged encouragements. After the death of Thorvaldsen, Gibson became the most distinguished living sculptor in Rome and was highly sought after by Americans and his countrymen alike to execute commissions for wealthy merchants, noblemen and even Queen Victoria – a work which elicited high praise from Prince Albert. Gibson produced no fewer than 44 major monumental works, and numerous smaller commissions such as busts and bas-reliefs, during the period 1818 up to his death.[24]

CASE STUDY: EROTIC *IMPRONTE*

The following list of a collection of erotic *impronte* is a remarkably rare and valuable collection on which to focus some detailed attention because, despite its mundane appearance and seemingly unscholarly subject matter, it very nicely strings together a number of themes, values, personalities and motives of the

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23 See *Thorvaldsen: Drawings and Bozzetti Autumn Exhibition 30.October-14.December, 1973* Heim Gallery, London. pp.6-11 For a more detailed account of the relationship between the two sculptors see: Iain Gordon Brown *Canova, Thorvaldsen and the Ancients* in *The Three Graces:Antonio Canova* Hugh Honour and Aidan Weston Lewis (Ed.), (National Galleries of Scotland, 1995)

24 For an extensive account of his life and times see the obituary contained in *The Art-Journal* Vol XXIX, 1866 pp.113-115

Grand Tourist of the 18th and early 19th centuries. Although human caprice and sexual matters are often glossed over by historians and art historians alike, sexuality is an intrinsic element of what makes us human and it can strongly influence the actions and decisions we make in life; true today and no less true two hundred or two thousand years ago.

Another aspect of sexuality no different today than during the Grand Tour is that a person's public persona need not reflect his or her private tastes. Although the Tour was intended to provide an education, the nature of this education encompassed not only the fine arts but the sexual arts also:

> Travel abroad provided a great opportunity for sexual adventure. Tourists were generally young, healthy, wealthy and poorly, if at all, supervised. Many enjoyed sexual adventures whilst abroad, but it is difficult to obtain information on the subject. To a great extent it was the 'good-boys' such as Wharton, well behaved prigs such as Thomas Pelham, and the scholars, such as Pocooke, who wrote lengthy letters home to their relatives. There is very little personal correspondence, other than demands for money from those whose conduct was castigated by their contemporaries. The vast majority of the journals that have been preserved relate to blameless tourists...it is also possible that journals and correspondence may have been tampered with by descendants. There is evidence of this in several cases. [25]

Although to a certain extent it was expected that young men abroad would sample the local delicacies there was tremendous apprehension back in England that their sons might contract venereal disease which might affect their ability to produce an heir; or even worse, that they might fall in love with a foreigner.[26] The wider availability of sheep gut and fish skin condoms in the later half of the 18th century alleviated some apprehension and a vigorous trade in these devices was established and was particularly oriented toward the travelers needs. Condoms were sold by:

> a few specialist wholesalers such as London's Mrs. Philips, who was prepared to supply 'apothecaries, chymists, druggists etc.' as well as 'ambassadors, foreigners, gentlemen and captains of ships &c going abroad.'[27]

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25 Black, Jeremy, *The English and the Grand Tour* (Crom Helm, London. 1985) p.109

26 Ibid pp.110-2

27 Tannahill, Reay, *Sex in History* (Cardinal, London and New York. 1989) pp.331-2

Chapter 4

The era of the Grand Tour was also the age of the Enlightenment, and the libertine and secular ideas of such men as Voltaire, Rousseau and Thomas Paine had an effect on the literature of the day as well as the morality of the aristocrats of Europe. It was this period that popularized the roguish, amorous adventures of the Venetian Casanova, and the genre of perversion named after the Marquis de Sade.[28] There was no shortage of erotic and pornographic material: Richardson's *Clarissa, or the History of a young Lady,* Diderot's *La Religieuse and Thierese Philosphie,* Rousseau's *La Nouvelle Heloise,* Choderlos de Laclos's *Les liaisons Dangereuses,* De Sade's, *Justine, ou les malheurs de la vertu (1791)* and *Justine, ou les prosperities du vice (1796),* Boucher's *La Toilette (1742),* lavishly illustrated anonymous works such as *Prints from Boccacio's 'Decameron' (1757-61)* and *The Confederation of Nature, or the Art of Reproduction (1780).*[29]

An individual who was directly involved in this flourishing pornographic industry, and in art history, neoclassicism and related artistic materials such as *impronte,* was Pierre-Francois-Hugues, Baron d'Hancarville. Best remembered for his books on the vase collection of Sir William Hamilton entitled *The Collection of Etruscan, Greek and Roman Antiquities, from the Cabinet of the Honble Wm Hamilton etc,* (4 vols. Naples 1766-76), d'Hancarville was equally notorious for his 'scholarly' pornography which exposed, through gems, the 'secret' lives of the ancients. These works,[30] and under the patronage of the distinguished antiquaries and gem collectors Charles Townley and Richard Payne Knight[31] he also published *Recherches sur l'origine, l'espirit, et les progres des arts de la Grece,* 3 vols (London, 1785). In the set of erotic *impronte* described below, twenty-one of the images are taken directly from d'Hancarville's book on the cult of Roman ladies and no doubt other depictions from other books made their way into collections of erotic *impronte.* In fact the Palazzo Pitti in Florence has a collection by Dolce, based on the spintriae of the Museum of Christian

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28 Ibid p.334

29 Neret, Gilles,*Erotica Universalis* (Taschen, 1994)

30 Originally published anonymously were quickly recognized as d'Hancarville's work, *Monumens de la vie privee des douze Cesars d'apres d'une suite de pierres gravees sous leur regne* (Nancy, 1780) and *Monumens du culte secret des dames romaines* (Nancy, 1784 and 1787 with a false imprint of the Vatican)

31 Turner, *Dictionary...*vol 14, p.131

Dehn,[32] of 125 erotic *impronte* and it would be intriguing to see how many are images that may have inspired, or been inspired, by d'Hancarville. (see fig. 63)

Largely forgotten today, d'Hancarville was arguably one of the most enigmatic and influential personalities associated with art and collecting in the 18th century. D'Hancarville was born Pierre-Francois-Hugues in Nancy on January 1, 1719 and died in Padua on October 9, 1805.[33] The son of a bankrupt cloth merchant, he was possessed of an innate sort of genius and rapidly mastered a wide range of modern and ancient languages but rather than joining the clergy he initially embarked on a military career and was a Captain in the service of Duke Christian Ludwig of Mecklenburg.[34] His numerous adventures in Germany were as widely talked about as his numerous encounters with debtor's prisons all over Europe, and his troubles with the police regarding his pornographic interests also contributed to his notoriety.[35] Despite his roguish antics he was admired as an adventurer and scholar – his intellect was unquestioned – he was acquainted with or was a close friend of some of the most famous figures of the 18th century: the art historian Leopoldo Cicognara, Isabella Teotchi Albrizzi (Society hostess and friend of Byron, Foscolo and Canova), J.J. Winckelmann (whom he visited in Naples in 1764 where he was introduced to Sir William Hamilton, the British Plenipotentiary).[36] In Paris he befriended the American Ambassador and future President Thomas Jefferson;[37] in London he was patronized by Charles Townley and Richard Payne Knight (a major benefactor of the British Museum),[38] and he was prominently featured in the Zoffany painting *Charles Townley in his Library*.[39] Also a philosopher, d'Hancarville was well known to Voltaire who 'thought highly of his brain, but

32 Piacenti and Pinto, *Curiosita...* p.91

33 Turner, *Dictionary...* vol 14, p.131

34 Haskell, Francis, *Past and Present in Art and Taste, Selected essays* (Yale University Press, New Haven and London, 1987) p.32

35 Ibid pp.30-1

36 Turner, *Dictionary...*vol 14 p.131

37 Haskell, *Past...* p.31

38 Johns, *Sex or Symbol....*p.22

39 Clarke, Michael and Penny, Nicholas, *The Arrogant Connoisseur: Richard Payne Knight 1751-1824* (Manchester University Press, 1982) pp.51-2

less of his character', and Frederick the Great observed that d'Hancarville was indeed an expert on the morality of stealing.[40] And again, in matters related to gems, he was involved with the dispersal of Baron Phillip von Stosch's estate, along with Stosch's nephew Muzzell-Stosch, Winckelmann, Horace Mann (in correspondence with Horace Walpole hoping to secure the Stosch cabinet of gems for England, but it wound up in Berlin) in Florence in 1759.[41] Winckelmann warned Muzzell-Stosch to 'keep a very close look out to see what he (d'Hancarville) was doing with his hands'.[42]

D'Hancarville was not alone in his interest in pornography. It is also an unfortunate result of his type of more scurrilous and intentionally licentious incidents (and others perpetrated by Stosch and Winckelmann) which resulted in Richard Payne Knight receiving so much grief and hardship when he, slightly later, attempted a more intellectual analysis of this same sort of theme in his book (partially inspired by Sir William Hamilton who drew Knight's attention to Isernia in letters from Naples) first published in 1786, entitled, *An Account of the Remains of the worship of Priapus, lately existing at Isernia, in the Kingdom of Naples...*[43]

A significant event in the evolution of the popularity of *impronte* was the disposal of the nearly 28,000 sulpher and wax impressions of coins, gems and medals owned by Phillip von Stosch,[44] of which a significant portion were acquired by James Tassie at some time between 1775 when his catalogue numbered 3106 subjects, and 1791 when he was able to offer 15,800 different subjects.[45] Tassie's 1791 catalogue was authored by an expatriate German scholar named Rudolf Erich Raspe. Raspe was born in Hanover in 1737 and studied philology and natural science at Goettingen and Leipzig and by 1767 he was Professor of Archaeology at Kassel; he also held the position of Inspector of the

40 Haskell, *Past and ...* p.32
41 Lewis, Lesley, *Phillip von Stosch* in (The Apollo, May, 1967) p.326
42 Haskell, *Past and...* p.33
43 Clarke and Penny (Ed.), *The Arrogant ...* pp.58-62
44 Lewis, *Phillip...* p.326
45 Smith, *Tassie ...* pp.12-13

Landgrave's collection of coins and antiquities. As a result of his writings on various subjects he was made an honorary member of the Royal Society in London. However, things fell apart in 1775 when it was arranged for him to be sent to Italy to acquire coins and antiquities for the Landgrave's collection, but it was discovered that amongst other questionable and illegal activities he had stolen valuables from the collection of coins and antiquities for which he was responsible. Raspe was arrested but managed to escape and found asylum in England, nevertheless he was stripped of all titles and honours and made his living in England as a writer and mining expert. Not content to live an unobtrusive and lawful live he became involved in a scheme to swindle his employer in Scotland, Sir John Sinclair of Ulbster, by falsifying a discovery of minerals. He escaped prosecution once again and fled to Ireland, but he ultimately succumbed to a case of spotted fever and died at Muckross in late 1794.[46]

As Raspe and d'Hancarville were contemporaries, shared the same intellectual interests, and were raised in Germany, Raspe was almost certainly exposed to the tales of d'Hancarville's goings on. They would also have been in England at the same time and circulating in similar social circles (d'Hancarville was in England for nearly ten years from 1777 to 1786, as was Raspe, when he decamped to Paris and was part of the crowd which stormed the Bastille on July 14, 1789).[47]

Raspe is now acknowledged, by literary researchers, to be the author and compiler of *The Travels of Baron Munchausen, Gulliver revived or the Vice of Lying Properly Exposed* , which first appeared, in English, in 1785.[48] Although the greater part of the Munchausen story is derived from traditional legends many aspects were overhauled, rewritten and invented by Raspe, many elements of the character Munchausen do bear uncanny semblance to d'Hancarville's exploits and personae. Both are now murky figures and it is impossible to establish categorically any definitive link but there is nevertheless an element of this 18th century adventurism that lingers on in such an unlikely place as a set of

46 Rose, William (Ed.), *The Travels of Baron Munchausen: Gulliver Revived or the Vice of Lying Properly Exposed* (Routledge and Sons, London, 1923) pp.10-11
47 Haskell, *Past and...* pp.40-41
48 Rose, *The Travels...* p.5

impronte which, now rare, was readily available, upon special order, from all the leading makers of Roman *impronte.*[49]

Comparison of erotic *impronte*, with plates from Pierre-Francois-Hugues, Baron d'Hancarville's book entitled *Monumens du culte secret des dames romaines,* (Nancy 1784). (see fig. 58)

The following erotic *impronte* correspond to 'gems' depicted in plates of d'Hancarville's 1784 edition considered to have been printed in Nancy. Copies exist in the Bodleian Library, Oxford, and at the British Library, London. (see figs. 59 + 60)

d'Hancarville Plate # — *Impronte* in the Ashmolean Cast Gallery set #55

No. 1 => Similar to cast 15, *Un therme di priape (Cornaline)*

No. 3 => Similar to cast 9, *un berger caressant un chevre (Cornaline)* This depiction is that of an ancient statuette found at Herculaneum and also copied in terracotta by Joseph Noellkens(1737-1823) See. *Sex or Symbol?* by Catherine Johns pp. 17 + 23.

No. 4 => Cast 14 is a mirror image of the book plate entitled *la conversation secrete de priape . (Onyx)*

No. 6 => Same as cast 12, *une femme devant un priape (Ameythyst)*

No. 8 => Same as cast 4, *Faune et Bacchante*

No. 16=> Mirror image of cast 23, *Auguste et Livie (Cornaline)*

No. 17=> Same as cast 2, *Hercule et Iole (Cornaline)*

No. 18=> Same as cast 18, *Leda et Jupiter transforme en cigne (Cornaline)*

No. 20=> Same as cast 20 and 25, *Vulcan envelope Mars et Venus (Cornaline)*

No. 22=> Same as cast 41, *Un therme d'un Priape avec un Satyre (Cornaline)*

No. 24=> Same as cast 24, *Pierre inconnue (Cornaline)*

No. 26=> Same as cast 10, *Pierre inconnue (Cornaline)*

No. 27=> Mirror image of cast 29, *Pierre inconnue (Cornaline)*

No. 28=> Same as cast 21, *Pierre inconnue (Cornaline)*

No. 29=> Same as cast 17, *Pierre inconnue (Sardonyx)*
This 'gem' bears a Greek inscription "Interea dum fata finuit,

[49] Piacenti and Pinto, *Curiosita...* p.91

jungamus amores, Iam veniet tenebris nox adopterta caput"

Reminiscent of gnostic gems.

No. 30=> Same as cast 40, *l'amour presente a Venus les armes d'enu* [sic] *(Cornaline)*

No. 33=> Same as cast 16, *Messalina, assise devant une aedicula, ou petite chapelle de priape. (Cornaline)*

No. 35=> Same as casts 5 and 32, *La roue de la fortune (Cornaline)* (see figs. 61 + 62)

No. 50=> Same as cast 38, *Le triomphe de priape porte fur un char (Cornaline)*

List of other depictions not in d'Hancarville's book:

Cast #:

1. Satyrs and a girl or maenad. Likely to be an 18th/19th century creation inspired by discoveries during excavations at Herculaneum and Pompeii.

2. Hercules and Omphale, from an engraved carnelian gem made during the second half of the 1st century B.C. and now at the Kunsthistoriches Museum, Vienna. IX B1560 (See Johns p.67, fig. 62)

3. A scene depicting a forced sexual encounter between a man and a woman.

6. A bull mounting a cow. This is a common fertility theme that could have been derived from numerous paintings and other images. It is also very similar to an illustrated plate in *Gemme et Sculpture* by Leonardo Agustino, 1699.

8. A naked man squatting and perhaps defecating.

11. A naked couple copulating on a chair. Likely to be neoclassical and inspired by paintings discovered at Herculaneum and Pompeii

13. A clever satire on the 'Four Seasons' series of paintings by the Milanese painter Guiseppe Arcimboldo (1527-1593) who used fruit, vegetables and household objects to construct portrait-like images. In this *impronte* Arcimboldo's visual puns are taken a step further by an unknown engraver with a ribald sense of humour. (see Figs. 64 + 65)

19. A depiction of an interpretation of the Three Graces and Cupid executed by Thorvaldsen and is also identical to cast #295 in the Paoletti collection at the University of St Andrews. This work was done by Thorvaldsen in Rome shortly after the death of Canova in 1822.[50]

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50 Casa Editrice Mediterranea, *Roma Nell'arte la Scultura Nell'evo Moderno dal Quattrocento ad Oggi* (Rome, 1942) p.357

22. A scene of fellatio in a similar style to cast #2 and may be from a genuine ancient gem.
26.A scene of an orgy, source uncertain.
27. Leda and the Swan, a very popular and common image from mythology and often depicted in Roman paintings, mosaics, pots etc.
28. A scene of forced sex, likely to be an 18th/19th century creation.
30. A couple copulating in bed, very similar to numerous paintings found at Herculaneum and Pompeii. (See Johns)
31. A fanciful penis creature that is very similar in style to many Roman apotropaic ornamental tintinnabula, a large number of which were uncovered at Herculaneum and Pompeii.
33. Scene of a satyr and a nymph.
34. An erotic emblem similar to a heraldic shield with a phallic crest and a motto below a pair of spread female legs.
35. A couple in a bed, the form similar to ancient gems such as that in #2. It is also possible that it is from an ancient gem, amulet or spintriae.
36. A couple copulating while standing up, in the style of Etruscan 'globolo' gems. May be taken from a genuine ancient gem.
37. A penis creature similar to a tintinnabulum.
39. A close up view of a vagina.
42. A scene of two angels copulating, likely an 18th/19th century composition.
43. A scene of fellatio; the composition and size suggests that it may be a genuine ancient gem.
44. A scene of forced sex very similar to #28.
45. An odd depiction of a penis hung from a gallows overseen by a mouse. Source uncertain.
46. A scene of two lovers, likely an 18th century work.
47. Same description as 46.
48. A scene of two lovers in bed, similar to ancient Roman paintings.
49. A penis amulet that seems to be a pastiche of the style of phallus commonly found on Roman gold and coral good-luck symbols. (See Johns p.66)
50. A 'globolo' style gem depicting two people copulating while standing up, very similar to #36.

The set in the Ashmolean is almost certainly of Roman origin based on the

comparison of styles typical of this area as well as subject matter. The *impronte* of the *Three Graces* by Thorvaldsen provides a terminus post quem of 1822 (done by the sculptor as a posthumous tribute to Canova)[51] and the image of *Hercule and Omphale* on *impronte* #2, along with #s 27, 29 and 30 are known to have been included in collections of erotic *impronte* available from Dolce and based on gems from Baron Phillip von Stosch's enormous collection of coins, medals and gems.[52] However it is doubtful that these are by Dolce and even though an identical Thorvaldsen *impronte* is in collections by Paoletti we cannot attribute this erotic volume to the Paolettis, because it is highly probable that the same *impronte* is represented in collections by Cades, and others. This is the overriding problem with sets of *impronte* that, without a glued-in maker's label or embossed spine with the exact catalogue, it is virtually impossible to make attributions that are any better than guesses. But it nicely demonstrates how diverse the sources of subjects were, even in such a small set.

As the Paolettis were a major producer of *impronte* for the better part of eighty years it stands to reason that many of their techniques would have been typical of other makers, and certainly works by Cades are almost indistinguishable from those of the Paolettis. What is evident in these two sets of nearly identical *impronte* is that unlike Tassie who used a standard sequentially numbered master inventory catalogue, the Paolettis performed more customized orders. Although no contemporary accounts have surfaced about the retail activity of *impronte* makers, there appear to have been standard groups of *impronte* such as Villa Albani, in which the same number of *impronte* have been designated, but their overall position in a tray was variable. Works by living artists seemed to be a little more diverse but essentially the same. Once the particular 300 or so *impronte* were determined, either by the vendor or the customer or both, a handwritten catalogue would be drawn up to accompany the sets. It is easy to imagine the interior of the workshop set up much like a candy store with large trays or bins with specific depictions or groupings pre-sorted for convenient purchase and composition of sets. Quite possibly certain compact and popular sequences such as the twelve Caesars, and illustrious men would have been 'off the shelf', and larger comprehensive and more expensive grand collections (or

51 Casa Editrice, *Roma*... p.357

52 Placenti and Pinto, *Curiosita* ... p.91

erotic sets) ready upon special order. A range of display choices must also have been offered; while the wooden trays are generally the same style, the book form of *impronte* case was subject to a wide range of colourful and lavish bindings. Curiously, some have handwritten catalogues, suggesting a made to order or quickly made up series, while others contain typeset printed lists that suggest a larger stock of standard sequences was offered. This was probably made up by the craftsmen in response to often requested and popular depictions which would have enabled them to handle larger volumes of trade. In fact, even in the late 18th century these makers were employing mass production techniques more typical of industrial production.

In summation we can see clearly that the themes and subjects depicted by *impronte* are not restricted to gems, or even items that could be considered gems in the sense that they are intended to stand alone as works of art. *Impronte* encompass all manner of subjects and material and were intended as a convenient visual record which reflected the historical and artistic beliefs of the 18th and early 19th centuries. The *impronte* which turn up in museum collections on the whole tend to be from the era immediately following the end of the Napoleonic wars when tourism in Europe revived. As earlier collections of *impronte* were gathered by the aristocracy and more traditional participants on the 'Grand Tour', those of the post 1815 period are more a type of souvenir that was a vestige of an already bygone age, purchased by tourists of lesser means who were a step behind the contemporary trends in art, history, and archaeology.

APPENDIX A:

CATALOGUE OF *IMPRONTE* AT THE ASHMOLEAN MUSEUM

APPENDIX A

CATALOGUE OF CAST IMPRESSIONS OF GEMS IN THE CAST GALLERY OF THE ASHMOLEAN MUSEUM, OXFORD.

The following were transferred from the DepArtment of Antiquities, mainly in 1992: 048-051, 053, 159.The following were in the department: 059, 084, 086. 039 is the gift of the NA – CF. The remainder are the gift of the Wellcome Trust.

001 to 016: SERIES of 16 large volumes: 3 of medals, 13 of gems (not complete series), 'Tassie' for Captn. Page, MS note in volume I These 13 volumes are the relics of at least 2, perhaps more, now incomplete series. The detached impressions (put into 61) are not from any of these volumes. Almost all need repair. Should be collated with Tassie catalogues. Volumes need repair: some spines missing, some casts are loose or lost, some MS lists lost. Casts are white plaster, with gilded card surrounds, mounted in 'volume' boxes, double sided.

001 On spine "1-Devices" (1-92)
'Portraits + Devices' probably none later than 18th century, good, clean state. Devices' are motto seals gems modern
MS list includes some engravers' names

002 Volume 1/13 (1-92)
'13' on spine, gems ancient & modern
Generally arranged by subject, but not closely, beginning with Illustrious men (Frederic the Great etc.) up to #45, #46 to 92 Various portraits of women and neo-classical themes. ie. 46 to 56 Heads of women and children; 57 to 78 are animals and animal motifs; 79 to 92 are cupids.
MS list 'volume I' marked 'A' for ancient Note: some restoration and conservation work has been done to the binding and the casts have been properly sequenced. It is not known when this work was carried out

003 Volume II (1-82),leather on spine restored
Mythological subjects, left side of the set shows scenes from the Labours of Hercules; the right side shows classical portraits and nudes.
Gems ancient & modern.
MS list: Hebe, Ganymede, Jupiter, Minerva, Diana, Mercury. The lists do not correspond to the contents of the box, likely they are from other sets. Two lists are numbered IV and IX and there is also a note from the maker giving the source of certain gems and their original owners.

004 Volume 3 (71 casts in the set), no.7 missing,
Mythological subjects, Hermes -> Apollo(very few)mainly martial themes, depictions of battles, portraits of generals and some pastoral scenes.
Gems ancient & modern.
no list.

005 Volume VII (85 casts), several loose, no.33 + 34 missing, spine restored, casts have been cleaned. Various subjects; Bacchic, mythological, motto seals, neoclassical and modern figures and portraits. gems ancient & modern
MS list 'VII' but does not correspond to the subjects in this series, likely from another set: Includes a handwritten note dated 1804 referring to Bacchante

Cameos and gift to major Moore.

006 Volume VIII/8 (90 casts), New spine marked #12
Subject material includes ceasars Julius to Domitian; portraits of Philosophers and heroes; including 18th century sentimental portraits, gems ancient & modern.

007 57 1/2 of box volume 4, 1/2 of box volume 4, (two separate 1/2 boxes) - spine of leather of volume 4 partly present (inside box).
Subjects mythological & historical. muses,Roman religious portraits. Mainly classical themes and subjects, gems ancient &, modern
MS list for volume XI

008 Volume 12 (25 casts) Spine has been restored and cleaned.
Various mythological themes: Right side Roman and Greek, Left side Egyptian and Oriental motifs. no list.

009 volume 14 (89 casts), top cover restored,
Gems ancient & modern: misc. Random small groups of subjects such as Athena, hunting, other goddesses, mainly portraits throughout. MS list MIV

010 Volume number 11 (very faint) (81 casts), spine restored, bottom layer dirty. Portraits of illustrious Romans, scenes of Roman History, scenes of nature and animals (misc.).
Gems ancient & mostly modern- no list.

011 Volume 14 (82 casts), box in reasonable order, spine restored
Heroic & mythological subjects, no list.
Gems ancient & mostly modern.

012 Motto seals & devices(71 casts), spine and cover restored, probably numbered according to a Tassie catalogue; not in sequence.
Gems modern.
For 'devices' i.e. motto seals, see also 001, 013.
MS note about owner's ring and device dated 1804(?) - no list.

013 Motto seals/devices (85 casts; #33&34 are missing) - spine restored. numbered as indicated above. Possibly from two separate series of casts. Subjects are mainly mythological creatures and heroes; ie. Satyrs, muses, Hercules etc.
Gems modern. No list.

014 Casts of medals (44), commemorative medals of Napoleonic themes. dated @1800-1815. Left side of the case is clean; right side has many dirty and discoloured casts.

015 Casts of coins (43), box fragile cover separated from the spine. Subjects are Greek coins showing the reverse and obverse views.
Ancient.
list (MS)- correct list for the depicted coins. ref. to unknown ms (?)A34751(14).

016 Casts of coins (35 casts), subjects are coins of Greek cities and Roman emperors
List MS - correct descriptions of the coins.

017 (47 casts) plaster and wax
From a collection at the Boston Museum of Fine Arts
3 mahogany(?) single leaf sliding integrated boxes. casts are very loose in the trays. 3 missing from box 'B', 1 missing from box 'D', box 'C' appears to be complete.

018 1 volume (23),*Liberotti impronte* brown spine, brownish coloured plaster, gilt framed, mounted on green, mostly detached.
'opere scelte', same description as 019, 025. Works of art in museums copied by 18th and early 19th century engravers.
Description as 025 - handle carefully, mostly detached, some are missing, out of sequence. Damaged from old and careless cleaning attempts.

019a,b,c 3 volumes *Liberotti Impronte Musei 1, Musei 4, Musei 5.*
Cream spine, red labels, gilt tooled.
Cream coloured plaster in black frames on green backgrounds.
'opere scelte' Labels inside list the subjects depicted by the casts. from Roman museums as 018, 025.
no address for the maker's shop. In 19b #'s 15/28 are detached, although none are missing from any of the sets.
'A' has 34 casts; 'B' 39,'C' 37 casts.

020a & b (35/43 casts) modern, very good condition
Paoletti, Museo Capitolina, label for the Via della Croce workshop.
Predominantly portraits and famous large sculpture.
Double-sided 'book', in very good condition. 'B' is on display in the ground floor case. For type of gems all from Mus Cap Rome see 018, 021.

021 (57 casts, 2 are missing), modern
Paoletti, Museo Capitolino, Piazza di Spagna 49 workshop address on the lid Mus. Capit.
Double-sided box, all casts are detached and in need of need fixing, bordered in black paper on green paper background.
See 020 & out of sequence. Subjects are mainly portraits and sculpture.

022 (21 casts) In Double sided box in the form of a book.
Paoletti Impronte. Piazza di Spagna workshop label on the lid as well as a subject index.
White plaster casts win black paper borders.
Opere di Thorwaldsen e Gibson.
Given by T.F. Higham to Western Art dept. See 023

023 (40 casts) white plaster with gilt card paper borders. Index label on the lid as well as a Piazza di Spagna workshop address.
Paoletti Impronte
Opere di Thorwaldsen e Canova; see 022.

024 Set of 5 volumes (162 casts), *Paoletti* I-V, green spine, white plasters, gilt framed, good condition - I 1-29, II: 30-57, III 58-89. IV: 59-103. V: 104-162
Gems modern.
I. Monumenti Varij Luoghi, II. Canova + Thorvaldsen, III-V Varij autori moderni (i.e.gem-engravers) inside covers: lists, MS

025 6 volumes, *Liberotti Impronte Musei 1-6*
brown spine, gilt voiling, mounted but many detached, white plaster in black frames on green background I.
'opere scelte' including works of art in Roman museums copied in gems, no order except symmetrical arrangement.
Insides of volumes look like Paoletti (026 + 028) but poorer quality plaster and not so well preserved as Paoletti's which are similar in appearance and the 'selection' is quite without any discernible order, except by size and appearance, no address. handle carefully, many detached.
MS lists inside covers.

026a&b (75 casts in two volumes, a 1-48, b 49-75) *Paoletti Impronte*: a) Museo di Napoli, Albani, Sommariva 1-48 (no address), b) Monumen. Varij, Luoghi [+ 'Uomini Illustri'] 1-27, address. Piazza di Spagna 49
Brown spine, with green body, fine condition white plaster in black frames
gems modern misc. after works of art.

027a&b (80 casts in total; a 1-49, b 50-80) *Paoletti*, dark spine, gilt framed white plaster Modern.
Categorized by museums, depicting works of art.
Labels: 1. Museo Vaticano 1-49, 4. Museo Napoli, Parigi, Sommariva 160-202
MS list inside cover.

028a,b,c (3 volumes with 100 casts in total) *Paoletti Impronte* - a) Musei diversi (mostly Christian themes), b) opere di Canova, c) opere di Thorvaldsen
Original MS lists, also English lists inside covers, 'catalogue' a) no name, b) + c) have Paoletti with address Via della Croce 86.
Light brown spine, red &: dark red details, originally mounted but mostly detached white plaster in black frames on green background
Gems modern.
Misc. after works of art

029 (45 casts), mounted, some chalked numbers, pale red 2- layer impressions.
Gems modern, neo-classical, including Marchant.
Miscellaneous subjects, mainly portraits of famous individuals.
Flat mahogany box, 2 sided, opening flat, 'lots 139.

030 (# of casts: now 22, orig. 32) 2 drawer nest, MS list pasted in lid by Bart. Paoletti & Pietro - at Piazza di Spagna 49, off white plaster, gilt framed, orig mounted now detached.
Works of Canova & Thorvaldsen.

031 7 Wood Nesting trays (300 casts), medium & large, white plaster, framed & mounted.
Gems modern.
Heads & figures after works of art according to collections: Museo Capitoline, Villa Albani, Museo Vaticano, Works of Thorvaldsen (interesting selection)
? probably Paoletti - (no label) - cf. 055; (?owner's name on lid - Mr. Taafe)

032 (200 casts), lid labeled 'by Giovanni Liberotti, Rome, V. del Babuino 105'.
Mounted in nest of 6 trays plus lid, nos.2-7 (includes the unnumbered lid, complete series.), each numbered separately framed white plaster.
Gems neoclassical > 19th century.

033 (100 casts) 2-sided, opening, flat leather covered (?)traveling case, sharp fastening, 'lot 37'.
Fine quality, white plaster in gilt surrounds set into a dark blue velvet base.
Gems ancient & modern.
50 heads, 50 figures, MS list of subjects enclosed

034 2 sided opening, flat leather locking case containing white plaster casts in gilt frames. Set into a dark blue velvet. Velvet is damaged from exposure to light, badly faded to grey. MS, list of subjects enclosed

035 Nest of 5 wooden trays (120 casts), *Paoletti*, numbered, mounted white plaster gems almost entirely modern (neoclassical subjects).
Mostly reproducing ancient sculptures but incl. Canova & Thorvaldsen
on lid indecipherable MS, owners name/address?
Inside MS catalogue - Estratte da gemme incise scelte della collezione di Bartolemeo Paoletti e Pietro figlio(from 3000+ sogetti) address Pa di Spagna 49

036 (22 casts), large white plaster casts with gilt frames.
Gems modern, 18th-19th centuries. Neo classical subjects and famous paintings.
Lidded tray, wooden
List pasted in the lid does not relate to this collection.

037 (400 casts) probably by Paoletti - no label, mounted, very good condition. White plaster with gilt frames.
Nest of 7 trays each labeled according to collection of works of art (museum) reproduced - 1. mus.Vaticano, 2. mus. Capit., 3. Uomini Illustri Mus. Capit., 4. Napoli, 5. Sommariva, 6. in varij luoghi, 7. Napoli Parigi Sommariva, 8., Opere di Canova, 9. Opere di Thorvaldsen.
Gems modern, reproducing mostly statuary 18th-19th century.

038 13 trays (11 of plaster, 2 of sulphur) @700 casts. Varying themes: Mythology, Sculpture, Gems, Portraits, etc.

039 Nest of 5 trays (103 casts) White plaster with gilt frames mounted on a blue paper background. Modern gems and various works of fine art. Gift of the NACF

040 Single wooden lidded tray. (12 casts) white plaster with gilt frames. Modern gems. made by Paoletti, Piazza di Spagna 49.
'12 Ceasars of Suetonius', Julius to Domitian MS on lid

041 Nest of 3 wooden trays plus lid. (50 casts)
Modern gems.
T. Cades, Corso, MS Catalogue on lid. Works of Thorvaldsen'

042 Nest of 6 wooden trays + lid (195 casts), dirty, label inside lid by Giov. Liberotti, v. del Babuino 105 (see 032).
White plaster with black surrounds on green backing.
Gems modern.
Large figures & scenes after works of art including paintings, 1 tray of archit. monuments.

043 Double-side book (50 casts) ancient and modern, erotic gems.

044a/b Double-sided box (73 casts in 'a' similar # in 'b')
White plaster with gilt frames
Seria d. Pichler ('a')
Seria d. Marchant ('b'), this box is in the ground floor display case.
MS list of subjects on the lids of both boxes. Mainly classical portraits and mythological themes.
Solfi fatt. daAmastini

045a,b,c,d Set of four single sided 'books' (200 casts) white plaster with gilt frames. made by *DOLCE* Federico, Rome, photocopy of printed companion book 1792 (Ashmolean library ref H i 9 fol.)
Modern and ancient gems.
Selected classical/neo classical themes. MS index list on lid.

046 Single sided 'book' (50 casts) ancient & Renaissance gems 'Gemme scelte', Greek & Roman classical themes MS list in lid.

047 'book' Numbered #7, no others in this set are in the collection. (100 casts)
White plaster with gilt frames.
Impronte Gemmaire Centuria 7 (by Cades) MS booklet describes the casts.
Dated by the maker 1868.

NOTE: the following three boxes are of the same series and should have been numbered as 48a,b,c, but this would now create to many problems relabeling boxes so it has been left 'as is'.

048 A double sided box in the form of a book.(33 casts) light brown colour with a gold and red spine with gilt tooled leather embossed titles
Paoletti Impronte 'Museo Vaticano', MS list of casts on the lid with address label of Paoletti at Via della Croce #86, Roma.

049 (24 casts) modern gems
Paoletti Impronte 'Musei Diversi' details as in #48

050 (26) modern gems
Paoletti Impronte 'Musei Diversi' details as in #48

051 Single 'book' style book, double sided (49 casts) ancient (no.15 missing) Made by M.Krause. MS list on lid
50 Gemmen-Abdrucke der Konigslichen Sammlungen in Berlin

052 Small wooden box, lidded (24 casts), in several layers, unmounted red sulphur important large gems, mostly ancient
[possibly (?) Medici gems]

053a-h 8 volumes, double sided boxes in the form of books. Unmarked on the binding of each box is "Gems: Proof Impressions Vol.1 to Vol.8 considered to be Poniatowski gems formerly held by the Antiquities Dept.

054 Nest of 5 trays (@150-175 casts) loose impressions, misc. collections, some poor quality, some good. All unmounted.
1)+2) large white plaster, Red, dirty, poor condition; 3) gilt framed white + of white plaster, large & small, mostly good quality, some dirty, 4)+5)) misc. small framed plaster casts in fairly good condition.
1) heads, ancient & modern, 2) heads &L figures ancient modern, 3) misc. heads & figures mostly modern.

055 Nest of 6 wood trays+ lid (lid does not fit - from different box) (300 casts) numbered, mounted.
Modern gems (neoclassical)
Subjects arranged by museums/collections of ancient statuary, also Canova Thorvaldsen
Inside MS catalogue, Bart. Paoletti e Pietro figlio, Plaza di Spagna 49 - larger & more carefully described selection than 035.

056 Rosewood(?) nest of trays, (47 casts out of 48 originally; Homer is missing. inside lid: *list of subjects - *'48 Casts of illustrious characters' (no maker)
White plaster with gilt frames. gems modern.
Portraits, ancient & modern Illustrious men'

057 Nest of 2 wood trays + lid. (40 casts)
White plaster with gilt frames.
Made by 'T. Cades, Corso', MS Catalogue of casts
'Uomini Illustri'

058 Single lidded tray (@30 casts)
White plaster with gilt frames detached from blue background.
Subject is 'Opere del Marchese Canova'
By T. Cades, Label for 'Rue du cours N456 au second stage a Rome',

059 Reddish brown folding box, with fastener, (50 casts).
White plaster with gilt frames. Subject matter is ancient Greek heroes etc.

060 Nest of 8 wood trays+ lid, (200 casts)
White plaster with gilt frames.
Label inside lid by Thomas Cades, Rue du Cours 28, Rome
Subject material is mainly ancient Egyptian, Etruscan and Greek figures.
gems ancient, from 'Maniera egizia la epoca; etrusca -> Greca '2a epoca'.

061 Nest of 8 wood + lid, numbered 1-8.
(200 casts) white plaster with gilt frames.
Label by Thomas Cades, rue du Cours 456 2eme etage.
From Egyptian to modern (last 2 trays)
Renaissance, Marchant, Pichler + later: incl. Thorvaldsen.

062 Nest of 5 wood drawers,(100 casts) forming polished cabinet on bun feet,
'lot 292' owner's name inside lid Eleanor & Georgiana Cust'
Fairly clean off white plaster, not sharp, in black surrounds, now detached from green background.
Gems modern incl. Marchant, Pichler - neo-classical. C.19
Misc., mostly 'works of art' ea. "Pliny's Doves"
cf. 042, 028, by Paoletti.

063 Wooden box,(@215 casts) loose, in gilded card frame.
White plaster, not well preserved, dirty and damaged.
Gems ancient & modern, coins.
Misc., incl. Large 19th century gems after paintings, labeled on back in Italian.
This box is a random assortment of 'spares' from various other sets. All are loose in the box.

064 Cardboard carton,(76 casts) 2 red trays (?from a coin box). white plaster (70)
White & pink plaster (6)
Misc. subjects gems (70), medals (6.)

065 Cardboard carton containing 10 plastic bags & one open carton mounted on card, a few inscribed with names. (several hundred casts) 19th century.
sealing wax, red/black mostly seals, chiefly heraldic subjects.

066 (@.360 casts), mounted, numbered but not complete sequence.
White plaster.
2 nests of 3 + 2 trays (were in one badly fitting nest with 2 lids)
3 modern trays a/c to gems, engraved 'migliori autori modern'
According to labels in lids, by Pietro Brassi, v. Capo le Case 31
Maniera greca (494-591), maniera greca-latina (1064- 1173), Luigi Pichler 203-250, Marchant 381-450, vari autori mod 496-539 (2 trays ancient, 3 modern).

067 Hanging frame (17 casts),companion set to 068&069

Some damage, gems chiefly C.18 mounted on dark red velvet
5 Marchant & misc. heads: Illustrious Men theme.

068 Hanging frame as 067 (21 casts), glazed
Some damage, gems chiefly 18th century.
7 Marchant' misc. heads: Illustrious Men theme.

069 Hanging frame as 067 oval frame, gilded,unglazed.
(14 casts) white plaster, damaged.
Gems all(?)18th century, except centre bottom row
including gems by Burch, Pichler.
Ancient & modern portraits,including Pitt, Inigo Jones, Raphael.

070 DISPLAYED IN THE LOWER FLOOR CASE. (12 CASTS), Twelve Ceasars, each cast with name of the Caesar below, off white (most likely a glass paste, it's properties are unlike the known sulpher and plaster casts) glass paste on painted pink background, with painted gilt borders.
Gems modern 18th century(?)
Glazed ebonized frame, slightly damaged
MS name labels, (label) by L. Maynard, 1826, his gift to Dr. N.W. Mansel; Price 21s- ea without frame'; from the collection of the Duc d'Orleans (sic).

071 (100 casts) (pair to 072), glazed ebonized frame (damaged) mounted symmetrically, each numbered on mount, 1-100, blue paper(?) white plaster casts with gilt frames in 12 rows. Gems ancient, renaissance, modern heads & figures.

072 (100 casts), in 12 rows, pair to 071
Gems ancient & modern heads & figures arranged in no particular order.

073 (14 casts), fine impressions in good black frame with gold swag work, detailing, Glazed.
White plaster with gilt frames.
Gems (18th C.) 4 Marchant, 1 Pichler.
After ancient & modern works of art (labeled with errors - NB "Iris" = "Fortuna" by C. Dolce, marked on the back.)

074 (24 casts), pair to 081 pink cardboard tray, in plastic bag, roughly framed & mounted, 1 damaged off white circular plaster casts. Mostly English Kings & Queens & medals.

075 (70 casts), loose, see 076
small brown cardboard box.
Pale red, 2 layers of impressions backed with card, resin wax. Gems modern.
Marchant, Pichler etc. misc. subject

076 1 Volume of 96 red wax impressions in a case - 8 pages of 12 impressions, mounted (some unstuck) each numbered but not consecutively - the book is late 18th century.

Leather spine, covered card case, no label - spine needs repair,fragile careful handling is required. Gems ancient & modern all of heads.

077 (20 casts), each name-labelled, uniform size
Table top or hanging case, glazed wooden frame.
Pale green sulpher, dirty. Gems 18th century or later, modern and ancient heads, mostly philosophers.

078 (30 casts), gilt framed unmounted yellow sulpher casts and good condition, in a flat wooden box
Emperors + illustrious Romans, some named.

079a,b,c,d (similar to 074) 36 casts, unframed, mounted (some detached) on red velvet. In 4 glass fronted flat table cases, one with lock. Some are incised 'P.Bemiton the back of loose casts. large off white plaster casts.
'Kings & Queens of England' to George III

080 (15 casts) multi-coloured sulphur, em green, pink, red, yellow. hanging frame, damaged
(label) by Le Mayland, August 1826
Gems ancient, Renaissance + neoclassical. 1 Pichler (Venus Marina)

081 (15 casts) (pair to 080), hanging frame
Gems all modern (?),3 Marchant.

082 (13 casts, 2 are missing)
Red sulphur casts. Hanging frame, gilt, damaged,
Small ancient gems
Sale room label: 'Antique gems: A collection of impressions in red wax from engraved gems. Classical and mythological subjects. Front edges of rims gilt, in a box. A beautiful and most interesting collection to the classical scholar, student, artist or amateur.' second part reads 'A rare collection of antique gems in wax by Flaxman(-and other artists employed) by Wedgwood.

083 (48 casts, 1 missing) in 3 trays. Uniform sized casts, mounted, many damaged by past cleaning attempts.
Mahogany(?) nest of 9 drawers, damaged, 'lot 240'
Large white plaster casts with gilt frames.
Modern heads of ancient & Renaissance philosophers & famous men, name labels with casts.

084 (@500-600 casts) in 9 wooden trays. Red sulphur casts with gilt frames. Each tray's sequence begins at #1. There is no catalogue or MS associated with this series.
Subjects are mostly classical and mythological themes.

087 (300 casts), mounted, numbered.
Nest of 6 trays, label (identical to 060) by Thomas Cades, same address as 060. Marked 'Storia Romana' on lid.
White plaster casts with gilt frames.

chiefly portraits, Roman Rep. -> Imperial history sequence.

088 (200 casts), loose, in 4 layers, good impressions.
Wooden box with lid. Buff & brown sulphur casts.
Mostly neo-classical. Marchant, some impressions ancient misc. important modern gems.

089 (@50-75 casts) in a cardboard carton. Contains loose white plaster impressions of ancient gems in three smaller boxes.

090 (300 casts) Cardboard canon with 4 layers of casts. Numbers in 5 figures from 15,000s + 7 lower numbers.
Also large quantity of loose framed numbered red sulphur casts in plastic bag (?)Tassie,
Gems ancient misc. subjects

091 (726 casts), on 20 boards of which 700 are mounted on green boards (as 093) probably Tassie. 26 are loose in bags, now in canon (as 093). Numbered on mounts, but not arranged in any order, 091 and 093 could be resorted according to numbers. Red sulphur with gilt frames.
Gems ancient & modern. misc. subjects

092 Same as 90, refer to the above entry for further details.

093 (175 casts) of which 150 are mounted on green boards, 25 are loose. The frame numbers go to 5 figure numbers, prob. Tassie. Now in carton, red sulphur casts.
from bottom:
1 ancient, figures
2 ancient&modern
3 as above
4 ancient, large gems, some damage
5 small, ancient
1. figures, 2.heads, 3.misc., 4. misc., 5. misc.
boards loose, not boxed, each has had some losses, the (Tassie?) numbers do not run consecutively, casts are not mounted in any particular order.

096a,b,c. (@150-200 casts per box) loosely stored in the boxes. 3 Frys "Shilling chocolate" wooden boxes.
White plaster no frames.
Small & large medallions, a few Poniatowski & other gems. Box contains an unknown reference to a presumed MS # A24120.
Subjects are English monarchs from Edward the confessor to William the IV.

097 plaster cast medals.
Wooden box. Plaster medals with a label on the lid which reads 'Allan Wyon Chief Engraver to HM, 28 Regent St.' there is also an MS list of subjects included.

098 (4-500 casts), 8 trays in a fall-front wooden box.
White plaster casts. Mostly portrait medallions, uniform size & manufacture.

099 (50 casts in total) In a cardboard box.
25-white plaster of portraits & similar medallions.
25-red sealing wax impressions - large heraldic seals.

100 (400 casts), 8 trays, loose in a wooden box, damaged marked 'lot 350', MS lists encl. White plaster. Medallions &: large seals 19th century.

101 (200 casts), 13 sliding drawers, casts are unframed and unmounted, many abraded @150.
Wood cabinet with 2 front-opening doors, top damaged, warped, some drawers sticking
White plaster. mostly modern gems, medals, plaquettes - misc. subjects and Napoleonic.

105 (50 casts),plastic bag
Some bear identification (notepaper etc) sealing wax mounted on paper, mainly heraldic seal and misc.

106 (100 casts), loose in a plastic bag
Sealing wax & other impressions.
Seals & medals (1 dated 1849), mainly heraldic, Societies etc.

107 Misc. collection: in drop front box with mouldings
1. C.6 pink plaster medallions, unframed, portrait heads, ea. Schiller.
2. A few white plasters, unframed, in 2 small cardboard cartons, gems.
3. In tin & red paper carton, medieval & ?later large seals
4. Rectangular ? plaster cast, lettered plaque (?runic)
S. A few misc. seals in wax, metal & plaster
6. Large cast, Stanley's R Geoff Soc. medal 1890
7. Small ?glass impressions after Marchant on black frame
8. Marble? plaque, Portrait of Titus
9. ?plaster circular medal, framed, of Prince Imperial as a child

108 (100 casts), loose in a small cardboard carton (Seabury NY) grey patting, with red edges.
Brown resin casts, some with a bronze type finish.
Mid 19th century medals, buildings, portraits.

111 (175 casts), loose, abraded, mostly unframed.
white plaster portrait medallions & large gems.
2 wooden boxes inscribed '75 plaster impressions from Stevens sale lot 27 August 1904'

112 (194 casts), loose plaster casts
mostly circular medals, gems etc.
rough wooden crate, no lid, 'lot 55 Stevens 2011011908'

113 (120 casts) White plaster impressions of medals and portraits (English and Italian) in crude paper frames set into a red paper tray. 24 casts per tray, 5 trays in total.

114 (100 casts), framed & unfamed, loose, very abraded, 4 layers of medals medallions, many portraits, large seals
Wooden crate, 'Lever Bros.' no lid
Large white plaster casts.

116 (@400-500 casts)large collection, mostly small
sealing wax impressions mostly of heraldic &: initials seals, some identified.
In a corrugated cardboard carton.

117 (200 casts), circular pink & white plaster
medallions, French commorative medallions and Napoleonic themes, Popes etc.
6 wooden trays.

119 (150 casts), 5 sliding drawers, unframed, loose white plaster casts in a fall-front box. 'Poniatowski gems' plus one large plaster plaque of 4 Cupids at play (c. 10 X 5cm) MS.Label: From whitley Apr 10/-

120 (191 casts) polished fall-front cabinet on bun feet (2 rear ones missing) with rising lid (hinges broken), loose file card: gems in the possession of John Tyrrell, 1841'.
6 sliding drawers, gilt surround, mounted, numbered, each frame mount has a paper label reading 'John Tyrrell'
White plaster with gilt frames.
'Poniatowski gems' numbered to 174/75

121 (75 casts) (1 missing) in 5 rows, mounted on black velvet.
large rectangular tray with white plaster casts.
Gems ancient, misc. subjects. There is a note revering to MS A41409, it's not clear what this is in reference to. Note also reads Nos. 51-63 Tassie'

122 (75 casts) (pair to 121)

123 (471 casts, a few missing), in 14 shallow trays, mounted (lacking cabinet), well preserved - see #135, 120, and 53a-h
Large flat cardboard carton of Poniatowski gems'
White plaster casts with gilt frames. Each labeled on frame 'John Tyrell'

124 (500 casts), unframed, abraded & dirty.
broken cabinet of 8 flat trays, top missing
large medallions, misc. gems. Three tags taken from the box :'ccc 124821', 'London B43S, Misc.. famous gems gemme scelte 147 eg.', 'mod small seals 62'

128a-g (300 casts) 7 small black cartons of 2 layers each with unmounted white circular plaster casts. chiefly portrait, & other medallions, named. MS. 'plaster medallions. Stevens sale. Dec. 1898/ Jan 1899'

130 (40 casts),loose in a cardboard canon, sale(?) numbers enclosed. 'A161667, A1944J5, A155502J12(originally 14), A155503J19 (originally 22), A163437113. Plaster & wax casts of portraits & other medals.

131 (see 096) 5 trays of white plaster casts.
MS. tags with numbers A24120, (131b-e)A24120.

133 (400 casts), 10 sliding drawers, white plaster casts with gilt surrounds, now loose, jumbled up & dirty.
Damaged cabinet, circular depression in top.
Mostly 'Poniatowski gems' now in disorder, numbered & labeled 'John Tyrrell'.
Casts were formerly attached (though not necessarily the original contents), labeled in drawers: T.41 N.6 T.22 N.19 (ie. not consecutively) 'classe 7', 'Poetes'-le French, T=Tome, Also some small gems & unrelated subjects (mod)

134 (150 casts),In 4 layers, loose, catalogue numbers scratched on the back of some.
Part collection of Poniatowski gems
Wooden box with white plaster casts. Unframed and probably never mounted
Poor detail, possibly copies from other casts.

135 (300 casts), loose in 5 drawers, framed Numbered (see no.29). Ebonised cabinet,labeled 'plaster casts antique gems'.
Mostly 'Poniatowski gems' (s.no.29) labeled to John Tyrrell
White plaster. @6 other sets have labels for Tyrell.

136 (100 casts), loose in a wooden box, damaged lid
Yellow sulpher casts and some plaster casts.
portraits' medals,coins,classical sub., medieval kings etc.

137 (@250-275 casts), 4 trays of Poniatowski gems, plus 3 trays of Parthenon friezes(17 out of 30 pieces are present),
'Poniatowski gems' + similar large modern gems. Two different sets: 1 marked John Tyrell, another is unmarked and is cast in yellow plaster.
Encased in a wooden fall-front box (front broken off)
Label '4SW 355 plaster casts of medallion & gems from Withery'

139 (30 casts), 5 layers, loose in a small blue cardboard box
White plaster casts of modern gems.
Portraits etc. medals & plaquettes (Shakespeare, etc.)

143 9 circular wooden seal cases containing sealing wax impressions of heraldic seals. In a plastic bag. Boxes have various makers address labels glued into the top. Ref. to #A9396.

146/147 (150 casts), framed, mounted on green background black paint over white plaster with gilt frames.
2 large ebonized rectangular hanging frames
Poniatowski gems, some with 'John Tyrell' labels.

148a,b/149a,b (120 casts), as in 14617, 1 detached, 2 smaller similar hanging frames, light green background.
(120 casts), as above but loose, red ground, 2 frames, same size as 110, poor condition.
All above Poniatowski gems, a few are labeled 'John Tyrell'. Note reading 'Auction lot #53 121S129.'

150 (250 casts), 12 sliding drawers (most knobs missing), cf. 70 numbered, fairly good preservation, Framed, set into cardboard bases.
Early 19th country veneered rosewood cabinet with brass hinging and carrying handles, with falling brass bar in front to lock the drawers.
White plaster casts, some yellowed.
Gems modern.
Cabinet has some damage on veneer and stringing should be restored, owner's initials P.H.P' on brass plate set into the top. 'lot 130 gems & medals, misc.
MS lists for 7 drawers preserved (owners not maker s -blanks & misattributions) some inscribed on back of plaster. List now in drawer 5.

151 (600 casts), 8 drawers (ivory or bone knobs), & framed, partly mounted. damaged fall-front cabinet, rosewood?. 'Lot 354'
White plaster casts.
dr. 1: gems, ancient & modern, Hercules etc.
dr. 2: circular modem medallions
dr. 3: misc. portraits/heads
dr. 4: chiefly ancient portraits
dr. 5: Alexander & mythological heads
dr. 6: as 2
dr. 7: misc. large red seals, a few medals
dr. 8: fitted drawer, medals
drawers 1, 3, 5 look like a Tassie arrangement, or Cades?

152 (75 casts), unframed, loose. Fall front box of 9 trays, damaged, lid broken
Large white plaster casts.
19th century (portrait) medallions, medals, Renaissance, Ceasars', 18th & 19th century. Plaques after paintings (ea. Leonardo's Last Supper)

157 (750 casts), not framed, much abraded, dirty, roughly mounted cabinet of 14 drawers, Roman numbers, drawer XIV empty, lower drawers mostly ancient gems (cabinet in reasonable state - could be reused).
White plaster and brown sulpher medallions in drawer XIII
Gems ancient & modern; additional miscellaneous subjects.

158a,b,c Lippert's Dactyliotheca: Three large cases in the form of books. Each case has

x sliding drawers containing white plaster casts with gilt paper frames. Set 'b' is on display in the first floor cabinet. A set of photocopied texts of the original catalogue are kept with the other books in the 'computer room'.

159 a-f 'Six cabinets of gems', small square finely finished wooden boxes with brass fittings, containing plaster casts of gems:
42: II (D.2) Animali indomiti 1-66
43: II (E) oggetti di mitologia barbara, ossia estera ai greci e romani, e lavori persiani. II (E.1) oggetti di mitolgiabarbara 1-38
44: II (E.2) lavori persiani 1-38
45: Classe m. storia greca e romana
III (A 1) ritratti di poet), orator), legislator), e filosofi greci e latini. 1-72
46: 73-89 m (A.2) ritratti di re di macedonia, egitto, ponto, siria, ed altri 1-39
47: 40-93
48: m (A.3) ritratti, e soggetti della storia di roma, dalla sue fondazione sino alla decadenza dell'impero romano 1-61
49: 62-124
50: 125-150
51: 151-196
52: 197-253
53: 254-312
54: 313-369
55: III (A.4) ritratti di personaggi Illustri incogniti, e latini. 1-50
56: Classe IV. Stile etrusco. lV (A.1) lavori da credersi propriamente etruschi. 1 -59
57: 60-120
58: 121-152 1V (A.2) lavori &eci e romani, participant) cello stile etrusco. 1-25
59: 26-91
60: 92-152

162a/b 'Twin cabinets' These were recovered from Beazley's basement at 100 Holywell. They were a single piece of furniture but the base and legs were damaged, so they were divided into two cabinets, as now. They were perhaps Story-Maskelyne's
162a L=left cabinet A-ZZ, 162b R= right cabinet A-DD

Electrotypes:

L B Etruscan	R B Roman
L C Roman	R C HellenisticfRoman cameos
L C Roman	R D Roman
L D Italic	R E Roman cameos
L E Hellenistic/early Roman	R F Roman, mainly heads
L F Roman	R G Hellenistic,Roman
L G Roman, Republican	R H Cameos
L Y Archaic,classical,greco-persian	R BB Sasanian,Gnostic

OTHER:
L A Cameos, plaster,metal R A Wax, BM and other

L H Florence, plaster
L I-J Metal
L K-L Metal
L M Plaster, mixed
L N V,X Plaster
L W Vienne cameos, metal
L Z1,2 Misc. cameos,plaster
R I-L Plaster,sulpher
R M Wax, incl.coins
R N-R Sulpher
R S boxes of Odelli 2 of plaster, Cades plaster, electrotyped, wax
R T Plaster cameos
R U-Z Sulpher
R AA 'pulsky, plaster
R CC,DD Wax

163 'The Big Cabinet': A large wood free standing antique medal cabinet with two front doors concealing two columns of sliding drawers marked from the left hand side in roman numerals I - XXX inclusive. there are 15 drawers on each side. This cabinet was transferred with its contents from the Department of Antiquities circa 1988.

Drawers I-XV; Impressions for Martin Henig's *Corpus of Gems in Roman Britain*
I (1-299) II (30-599) III (600-675) IV (676-) V (others) VI post corpus

Drawers XV, XXV-XXX
Tray of the impresssions transferred from the Bodleian. Set of sulpher casts in wooden
trays with MS list to Dolce, gift of Christian DENH Rome 1772.
Drawers XVI, XVII
Bequeathed by Dr Southgate (Dept. of Antiquities 1917), Stosch collection, and Poniatowski gems.
Drawers XVIII, XXI-XXIII: Poniatowski Gems
Drawers XIX, XX: Various impressions
Drawers XXIV: Warren impressions, Boston etc.

APPENDIX B:

Sections from Heinrich Keller's,*Elenco di gli pittori scultori architteti minatori incisori in gemme i in rame scultori in mettallo i mosaicisti.*

APPENDIX B

Notes to the guidebook of Rome by Keller, Heinrich,*Elenco di gli pittori scultori architteti minatori incisori in gemme i in rame scultori in mettallo i mosaicisti..* (Francesco Bourlie, Roma 1824)

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Canova: in Palazzo Venezia.

(p. 56) *Incisori di Cammei, Intagli e cunj.*
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Bragi (chonchiglia) Via de tritone n58
Cades (cameo) Via del corso n456
Calabreni (cameo) vicolo in santa lucina n42
Calandrelli (intaglio) all fontanella di borhese n32
Capaldi (conchiglia) Via della vite n93
Caputi (cameo, cunje bronzo) Via gregoriana n33
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Cerbara, Nicola (inyaglio) S.Giuseppe a capo le case n56
Cocchi, Vincenzo (cameo, intaglio, cunj, pittore, mosaicisti a restauratore di quadri) Via della longara n102
Cocchi, Alessandro (intaglio) Via del babuino n186
Cocchi, Michele " " " " "
Dies, Giuseppe (conchiglia) Via della croce n79

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Girometti (cameo, intglio, cunj) Prof. accademia di S.luce. Palazzo Rondanini nel corso n518.
Grandi Via della vite n107
Macchetti Via di ripatta n110
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Mango (cam) fontana di trevi n100
Mansueti (Intaglio) Via dell Pace n40
Mastini (cam) S.Carlo al corso n106
Merli (conch) S.Guiseppee a capo le case n48
Michilleni (cam, int.) Via condotti n14
Morelli Nicol(cam) Prof.Accademia S.Luca,S.Carlo al corso 106
Morelli Stanislaw (cam,cunj) Via della scrofa n8
Neri (conch) Via della vite n101
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(p.67) *Mosaicisti, e negozj di belle arti, e di mosaico*
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Angelion, Stefano studio di mosaicisco e di scjola. Campo Vaccino 3
Arnaud, Benigno. Mosaicisti. Via della croce n45
Barberi, gioacchino. Mosaicisti. Piazza di spagna n99
Bisani, Alessandro. Negozio di mosaici e di oggetti delle belle arti. Piazza navona 78/9
Bracci, Pietro Fabbricante di smalti di ogni colore, dette paste, collezione d'impronte i scajola di camei, ed intagli antichi e moderni. Via di S.andrea delle fratte n31
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Buglieschi, Guiseppe. Tutte sorte d'oggetti tu d'arte antichi e moderne. Via del

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Calandrelli, Tommaso. Figure animali e paesi. oggetti di arte. Via condotti n28
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Carnesecchi, Francesco. Mercanti di mosaici, camei, art etc. Via condotti n74
Cades ,Tommaso Camei, paste di smalto , collezione d'impronte in scajola di pietre incise di tutte l'epoche. Fra. Ritrati in cera. Via de corso n456
Dies, Luigi e compagni. Negozi di mosaici, gemme ed altra oggetti di belle arti. Via condotti n16
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Forti, Giuseppe. Orefice e negoziati di pietre incise. Via condotti n72
Francesco, Antonio. Figure e paesi mosaici. Via de serpenti 60
Francescangeli, Luigi. Mosaiicita. Via del babuino n118
Frediani, Francesco. incisore di cammei. neg. di belle arti. Via della croce n89
Gastaldi, Antonio. mosaici, camei, oggetti di art. Via bocca di leone n76-7
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Giulj, Clemente. mos. studio di arti. Piazza di spagna n70
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Mattia, Giuseppe. Mos. fabricante di paste. Via rosella n148
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Meglia, Luigi Mos. lavori in pietre dura Via condotti n 50
Moneta, Fillipo Belle arti Mos, etc. P di Spagna 87
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Monfagnati, Antonio. Mos Via felice n17
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Morelli, Stanislaw Incisore di camei, beller arti.etc. Via della Scrofa n8
Morelli Mos. & restorici of ancient mosaics. Via del babuino n137
Paoletti, Bartolomeo. Fabbricante di paste in smalti, tanto in incavo, che in cameo. Impronte di scajola, copiate degli originale esisenti se'varji musei del Europa. Piazza di spagna 49.

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Rafalle, Giacomo Mos. Lavori pietre dure. Via del babuino 92
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Sopranesi, Francescio Neg. ai mosaicci, altre belle arti Via del corso 134
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Trebby, Carlo Neg Mos. Via condotti 23
Theylaken, Luigi Negozio di mosaico, e di lavori in marmo d'ogni genere. Via della croce 23

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Verdjo Vincenzo Mos. Istorie, paesi, animali etc. Via condotti 33,4,5.
Vescovali Ignazio Piazza di spagna n20. Questo Negozio merita una particolare attenzione per la sua estensione, la copia, e la belllezma delle statue che vi si rinvengono, le quali sono il prodotto dei savi dispendiosi fatti dall'intraprendente propietara, vi si trova oltre queste ogni genere di antichita in marmo, bronze e terra cotta, camei, intagli, medaglie e paste antiche.
Willaume, Giuseppe Studio mosaico Piazza di spagna n107

APPENDIX C:

Catalogue of subjects depicted on *impronte* at the University of St Andrews

APPENDIX C

A catalogue list for the collection of Paoletti *impronte* at the University of St Andrews. Compiled by Scott Marchand in August, 1997. The attributions are based on photographic and manuscript comparison (see fig. 24 for a picture of the handwritten Paoletti MS catalogue used to identify the St Andrews *impronte*) of the St Andrews set, to set number 55 in the Ashmolean collection. The category groupings and subjects depicted in the two sets are nearly identical, excepting the numerical order, and that the St Andrews set contains 5 more *impronte* than does the Ashmolean set. The works of Canova and Thorvaldsen represented allow a date of manufacture for these sets to be not earlier than C. 1820.

CATALOGUE OF THE PAOLETTI SET OF *IMPRONTE* AT ST ANDREWS.

Cast number: Title of subjects as given by the manufacturer:

1. il discobolo, d'un marmo
2. Caracalo imperatore, d'un busto
3. Minerva salutitera, detta del candelabra
4. l'Ingresso del museo Vaticano
5. Un idolo Egizio, da un basaldo
6. Miverva medicea, da un marmo
7. Un cane livaiero
8. Iride dea Egizia, nella Villa Parofilli
9. la tutta del discobolo, da un marmo
10. Pericle, da un busto
11. Melpomere musa, cameola
12. Un angelo, da unpittura di Raffaelo
13. La teta della Piurtizia, da un deposite nel Vaticano
14. Isole nel zodiaco, da una pittura
15. Giove capitolino, da un busto
16. il carro di venera, cameola
17. il proipetti della scala della paolina
18. il medeimo in figura
19. una sphinge
20. l'educazione di Giove, sa un bassorileivo
21. (Quirinale?)
22. Platone, da un busto
23. Fauno, da un marmo
24. Mercurio, cameola
25. Saffo poetessa, da un busto
26. il genio, da un busto
27. Baccante, cameola
28. Una dei figlidi Laocconte, da un gruppo in marmo
29. Una Vittoria, da un sarcogata
30. Ajaco, da un busto
31. Laocoonte e figli divorati dei serpente, da un gruppo in marmo
32. il nuovo braccio del moseo Vaticano fatto da Pio Settimo
33. Ocione capitano ateniere, da un marmo
34. le noppe detta also brandine, da una pittura afresso antica

APPENDIX C

35. Antinoo, cameola
36. Adone, da un busto
37. Giove amone
38. Tardanapalo, da un busto
39. Melagro, cameola
40. Venere nel bagno, da un marmo
41. il busto dell'appollo, cameola
42. un aquila
43. Cleopatra, da un marmo
44. Augusto Imperatore, da un marmo
45. Un cavallo
46. Euripede poeta greco, da un marmo
47. un leone
48. la testa di Melagro, cameola
49. il dio Mitra adorato dalle Persiani

MUSEO CAPITOLINO

50. Soldato incognito, da un busto in marmo
51. Andromeda liberato da Perico, da un bassorileivo
52. unknown
53. Ercole calle Roma Erperidi, da un bronzo
54. Catone l'uticeno, da un busto
55. Un leone ed un cavallo, da un gruppi in marmo
56. Li itinfalidi uccix da erole
57. Un cuccudrillo
58. Aggripina, da un marmo
59. Urania musa, da un bassorileivo
60. l'educazione di geovoreon li sorbibante, cameola
61.Paride trojano, da un busto
62. la lupa allatante Romolo e Remo, da un bronzo
63. Mitridata re de ponto, da un busto
64. Gladitore moribundo, da un marmo
65. Calliope musa, da un bassorileivo
66. Giove Fulminante, da un marmo
67. Saffo poetessa, da un busto
68. Carneade filosofo greco, da un busto
69. Priamo supplicherde nella tenda di achille, d'un bassorilievo
70. Omero poeta greco, da un busto
71. Bruto l'ucciore de cesare, da un busto
72. Diana Efezia, o via la naturia perronificita, da una
73. La dacia soggiogata da trajono
74. Bruto il diacacciatore dei re da Roma, emprimo corso, da un bronzo
75. Cicerone oratore latino, da un busto
76. Pindaro poeta greco, cameola
77. Calligola imperatore, da un busto
78. Arianna, da un busto

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79. Marquis detto il fedele, da un bronzo
80. Iride dea egizia, cameola
81. unknown
82. Endimore, da un bassorilievo
83. Idolo egizio, da un basaldo
84. Venere e Marzo, da un gruppo
85. Antinoo, da un marmo
86. Augusto, da un marmo
87. Coppea moglie di Nerone, cameola
88. Nerone imperatore, da un busto
89. Alessandro il maccedone, cameola
90. La polombe dette di furiette, da un mosaico antico
91. Marco Aurelio imperatore, da un bronzo
92. Il medisimo dando la paraval popolo
93. La muse Euterpe, da un marmo
94. Venere, da un marmo
95. Diogine il cinico, da un busto
96. La du cudicigia, da un marmo
97. Li Centauri detto di fueretti
98. Amore e Pische, da un gruppo
99. Trajano imperatore, da un busto
100. Julio Cesare, da un busto
101. Curjio labino alla palude, da un bassorilievo
102. Amazone ferita, da un bassorilievo
103. Scipione affricano, da un busto
104. Virgilio poeta latino, da un busto
105. Socrate, da un busto
106. Romolo che con l'arato regnala civconferonja de cittia di Roma, da un pitura
107. Un trione, da un marmo

UOMINI ILLUSTRI NEL MUSEO CAPITOLINO

108. Antonio Allegri, dello corregio pittore
109. Ariosto poeta italiano
110. Dante Aligheri, camela
111. Torquato Tasso, camela
112. Petrarca, camela
113. Palladio Architetto
114. Il Quercino pittore
115. Il Poldoni poeta Italiano
116. Pietro Metastassio poeta dramatica
117. Vittorio Alfrievi poeta tragico
118. Antonio Raffael Meng pittore
119. Michel'angelo Buonaratti pittore, scultore ed architetti
120. Galileo Galilei celebre astronomo
121. il Tijiano pittore
122. Pio Winckelman dottisima antiquarrius

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123. Niccolo Pousin pittore
124. Pio Settino
125. Leonardo da Vinci pittore
126. Raffaello d'urbino pittore
127. Madonna Angelica Stoffman pittore
128. Carlo Manata pittore

VILLA ALBANI

129. Agrippina, da un marmo
130. Zeto ed Antione con dioce loro madrigna, da un bassorilievo
131.Antinoo, da un bassovilievo
132. La testa dell Aggripina
133. Amore che spegja l'areo, da un marmo
134. Amore nel vitello marino
135. Fauno e baccante, da un bassorilievo
136. Giunone, da un busto
137. Una baccante in furia, da un bassorilievo
138. l'educazione di bacco fatta dalle ninfe, da un bassorilievo
139. Una vittoria faundo le bibazioni, camela
140. Il busto di una ninfa
141. Il fauno detto delle priacchero, da un marmo

MUSEO DI FIRENZE

142. Il cignale, da un bronzo
143. Venere, da una pittura del Tijiano
144. Venere ditta della conchiglia, da un marmo
145. Venere detta de medici, camela
146. Il busto della medisima
147. La madonna detta della seggiola da una pittura di Raffaello
148. Minerva, da un busto
149. Mercurio di Pio Bologna, da un bronzo
150. L'applolino, da un marmo
151. Solonas la piente greco, da un busto
152. Niobe
153. Tutte figlie di Niobe, in marmo
154. " "
155. " "
156. " "
157. Alessandro moribundo, da un marmo

MUSEO DI NAPOLI

158. Centauro e Baccante, di una pittura a'fresco dell ercole
159. Venere callippicce, da un marmo
160. Una ballerina, da un pittura dell ercolano

APPENDIX C

161. Tete ed anfione, che hano legata la madigna dire et toro, da un gruppo nella villa reale
162. Citerita, da una pittura dell ercolono
163. altra ballerina, camela
164. altra ballerina, camela
165. Amore e Pische, camela
166. La mercanterra di amore, camela
167. Arianna abbondonata, camela
168. Centauro e Baccante, camela
169. Fauno et citerita, camela
170. Satiro e Caprone, da una pittura dell ercolono
171. Venere nel mostro marino
172. Uno sporaligio, camela
173. Ercole colla Roma esperide, da un marmo
174. Il busto dell ercola, da un marmo
175. Medusa, da una tappa in agata orientale
176. Apollo et Clio, da una pittura dell ercolano
177. Altra ballerina, da una pittura dell ercolano

MUSEO DI PARIGI

178. Gladiatore combattente, da un marmo
179. Ermafrodito, camela
180. Le matrone romane che connegano le loro gemme per la guerra contra unnibale.
181. Il genio della poesia sul pegaso, da un marmo
182. Il tre gracie, da un gruppo in marmo
183. Roma, da un busto
184. Fauno e Baccante, da un gruppo in marmo
185. Venere e Cupido vineitori di morte, camela
186. Lucio vero imperatore, da un marmo
187. Centauro vinto da amore, da un gruppo in marmo
188. La morte di seneca filosofo e maestro di Nerone, da un marmo
189. Antinoo, detto di mondragone, da un marmo

MUSEO SOMMARIVA

190. Cuojio all Voragine
191. Venere accaejando amore
192. Il riporo in Egitto
193. Venere gastigando amore
194. La communione di altalo
195. Un genio
196. Anna Bolena con la figlia
197. Napoleone Imperatore
198. Venere che rorteda bagno
199. Leda con giove in cigno

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200. Venere rapita dai Zeffion
201. Amore e Venere
202. Venere e Adone
203. Ciparrino moribundo rortenuto da Apollo
204. Zeffiro vento
205. Un astronomo
206. Venere nel Rardino
207. Achille nella sonda di agamenone
208. Un vaso di fiori
209. Soggetto incognito
210. Vulcano che spezza le ali a Cupido
211. Minerva che di fonde telemmaco da gli inganmi di re nell Isola di Calipso
212. Il Presepe
213. La Carita
214. Ritratto incognito
215. La prima incissione fatta da Caino
216. Perpricore musa, da un marmo di canova
217. Tobia condetto dall angelo al sagrificio
218. L'Innocenzo
219. Il ritratto del la comte Sommariva nella sua Villa in Parigi
220. Amore che abbandona Psiche
221. Pigmalione con la sua Venere animata da Minerva
222. Venere con arcanias figlio di Enea
223. Virgilo poeta latino, che recita li (-?) verie alla prezenza di Augusto livia e Pialia
224. Cleopatra supplichide cevante Augusto

MONUMENTI DI VARIJI LUOGHI

225. Cicerone, da un busto nel Palazzo Casali
226. Mercurio e Venere, da una pittura
227. Venere che rorte dal bagno, da una pittura de caraccio
228. Ercole conralvi segretario di stato di Pio Settino, da un busto nel Panteon dette la Rotonda
229. Ebe con giove in aquila, da un pittura
230. Amore che spezza l'arco da una pittura dal Parmigianna
231. Julius Cesare imperatore, camela
232. Citesita, da un pittura nelle terme di Tito
233. Il Peno, da in bassorilievo nel Palazzo Spada
234. Marze, da un marmo in Villa Ludovice
235. Giove e Cupido, da una pittura nella Farneriana
236. Lucio papirio e la madre, da un gruppo in marmo in Villa Ludovice
237. Galatea, da una pittura di Giulio Romano nel Palazzo Sommariva
238. Bacco e Ampelo
239. S.Agnesa, da una statua in marmo o nella chiese alla Piazza Ag.
240. Antinoo, da un busto nel Palazzo Braschi
241. Castore, Dalli colona al Quiranale

APPENDIX C

242. Polluce, " "
243. Iride, da una pittura in Londra
244.Fauno ebrio, da un marmo una villa di Barberini
245. La caccia di Diana, da una pittura del Domenichino nel Palazzo Borghese in Roma
246. Una dansa di putti, da una pittura di Giulio Romano nella villa Lanto
247. La ultima cina degli apostoli, da una pittura di Leonardo da Vinci in Milano
248. Dio Pane, da un marmo in Villa Ludovice
249. La busto del Discobolo, da un marmo in Londra
250. Giove e Ganimede, da un pittura del caraccio nel Palazzo Farnese
251. Medusa da un bassorilievo nel Palazzo Rondanini
252. La tenda di Darius, da una pittura nel Palazzo Colonna
253. Giunone, da un marmo in Villa Ludovice
254. Mercurio sall asrete, da un marmo nel Palazzo Guistiniane
255. Minerva, da una creta cotta di Poniathorelli
256. La filatrice, o sia una delle tre paroche, da un marmo moderno
257. L'Aurora, da una pittura di Guido nel Palazzo Roipiglio
258. La Innocenza, da un marmo moderno
259. Apollo e Dafne, da un gruppo in marmo del Bernini nella Villa Borghese
260. La fontana di Trevi
261. La sphinge dell obelisco solare nella Piazza Tonoccazia dette monte Citatorio
262. unknown
263. unknown
264. L'arco di Constantino
265. unknown
266. Missing (may have been 'L'anfiteatro di Flavis, detto Colosseo')
267. L'arina formentata da amore fra nemisisi e la speranza, da in basso nel Palazzo Otigi
268. Missing (may have been 'L'Colosseo')

OPERE DI CANOVA E THORVALDSEN

269. Il ritratto del fu marchese Canova in Parragnio
270. Una ballerina in forlli
271. Teseo vincitore delli centauri, in Vienna
272. Venere nel bagno, nel palazzo Pitti in Firenza
273. Il busto del Teseo
274. La danzatrice, in Pietroburgo
275. Terpricore, in Parigi
276. Palomede, in Parigi
277. Napoleone, in Londra
278. Il busto del medisimo
279. La riconoicenza avantii il ritratto del priape zizendorja, in Londra
280. Ercole e Licia, nel Palazzo Torlonia
281. L'amiazia, in Padova
282. Paride Trojano, in Bavaria
283. Le Gracie, e museo di Bavaria

APPENDIX C

284. Il Perseo nel Vaticano
285. Il busto dell Rene Ficenza, da un depsito in Vienna
286. Il Capao dell Eba, in Londra
287. Il busto di Palamede, in Parigi
288. Venere e Marze, nel Palazzo di S.M. il Re d'Inghliterra
289. Ebe dea della Gioventia
290. -Three graces in togas, not in original catalogue
291. Amore e Psiche, in Pietroburgo
292. Il Giorno o sia la Mattina
293. L'anima salita al cielo
294. Ercole ed Ebe
295.- three graces and a cupid
296. La notte o sia la sena
297. Mercurio che consegno Bacco all Minfe
298. - Man and boy
299. Il ritratto de Se. Cavalier Thorvaldsen
300. Bacco che disseta Amore
301. Amore punto dalle avri
302. Ettore che improvera Parides ed Elena
303. Giove in Aquila e Ganimede
304. Il Genio delle belle arti
305. La disposto far Amore e Marze sul poteni delle loro orione
306. Amore che socorre Psiche
307. Il trionfo Alessandro

APPENDIX D:

Sample page from the conservation survey of *impronte* at the Cast Gallery of the Ashmolean Museum, Oxford. July – August, 1996.

BOX No.	BRIEF DESCRIPTION	CONDITION DIRT	MOULD	ST.	ABR.	CRACK	OTHER*	* COMMENTS	MATERIAL	Cons need	Initial & Date
28c	Double sided Volume box with attached plaster impressions.	2	3	3	2	2	2	6 detached casts, Past Cleaning has abraded them. Dirty	White Plaster Black paper	1	SII 7/96
29	Hinged wooden box with red wax impression on two sides	2	3	3	2	2	2	a little dirty, one detached Some Surface dirt present.	Red Sealing wax	2	"
30	2 Trayed nesting box. Crudely manufactured 15cm w / 21cm L / 5.5 T	2	2	2	1	2	2	9 Casts missing. All are detached. Paper borders [illegible]	White plaster & gold paper	2	"
31	7 trayed set of nesting boxes. Crude wooden cases. 20cm W / 17cm T / 32cm L	2	2	2	1	2	2	Cobwebs present. V. dirty Abrasions from past cleaning attempts. Boxes weak.	"	2	"
32	6 trayed set of Nesting boxes - Crude Wooden Cases. 20cm w / 15cm T / 32cm L	2	2	3	3	2	2	10 missing Casts. Surface dirt. Some mold present	"	2	"
33	Folio Style. Dark leather Cover 2 Sided Facing Volume.	2	3	2	3	3	2	Spine of Folio is broken Slightly dusty interior	"	2	"
34	"	2	3	3	2	3	2	Dirty + Some Surface Abrasions.	"	2	"
35	5 trays + Lid. Crude Wooden nesting boxes 15cm w / 12cm H / 24cm l.	2	3	3	3	2	2	Signs of Woodworm infestation. Some detached Large Surface dirt	"	2	"
36	Single tray + Lid. 21cm w / 3cm H / 32cm L	2	3	3	2	3	2	Woodworm Infestation to box. Casts dirty as a result.	"	2	"
37	8 trays + Lid. Crude wooden nesting boxes. 24cm W / 20cm H / 32cm L	2	2	3	2	3	2	Very dusty from old packing material. Some signs of [illegible]	"	2	"
38a	2 unmatched trays.	1	2	1	1	2	1	Loose, dirty. [illegible] of Stacking [illegible].	Red [illegible]	1	"
38b	11 mixed trays of casts in wooden stacking trays	1	1	1	1	2	1	Almost all detail is obscured by dirt. [illegible]	White plaster [illegible]	1	"
39	5 trays + Lid of Casts in Crude wooden nesting boxes. 15cm w / 11cm H / 24cm L.	2	2	3	3	3	2	dirty from old packing Material Some loose Casts 1,2, 92	"	2	"
40	1 tray + Lid of Casts in Crude Wooden ~~tray~~ box 15w / 6.5H / 24L	2	3	3	3	3	2	Slightly dirty from old Packing Material	"	2	"

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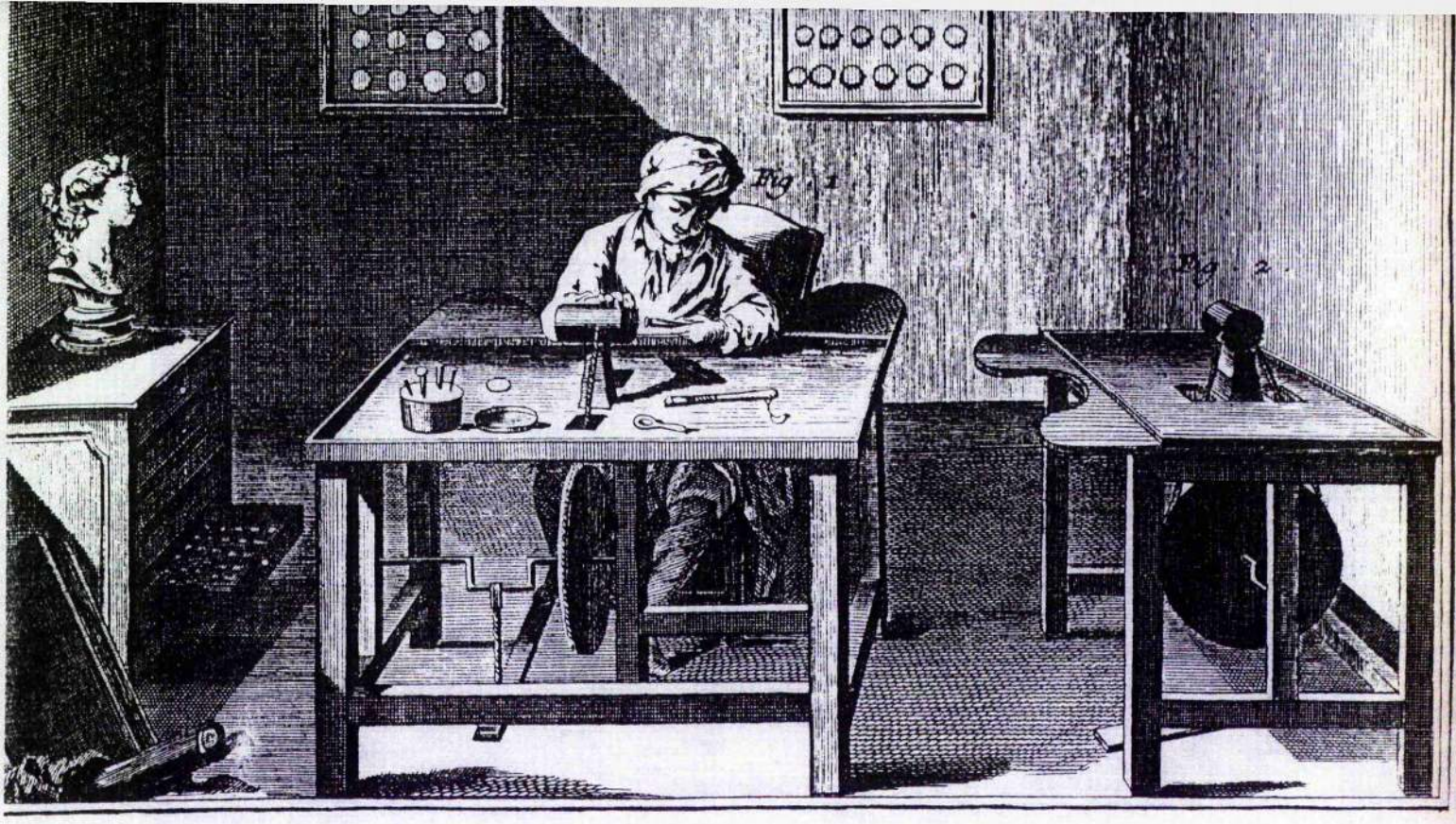
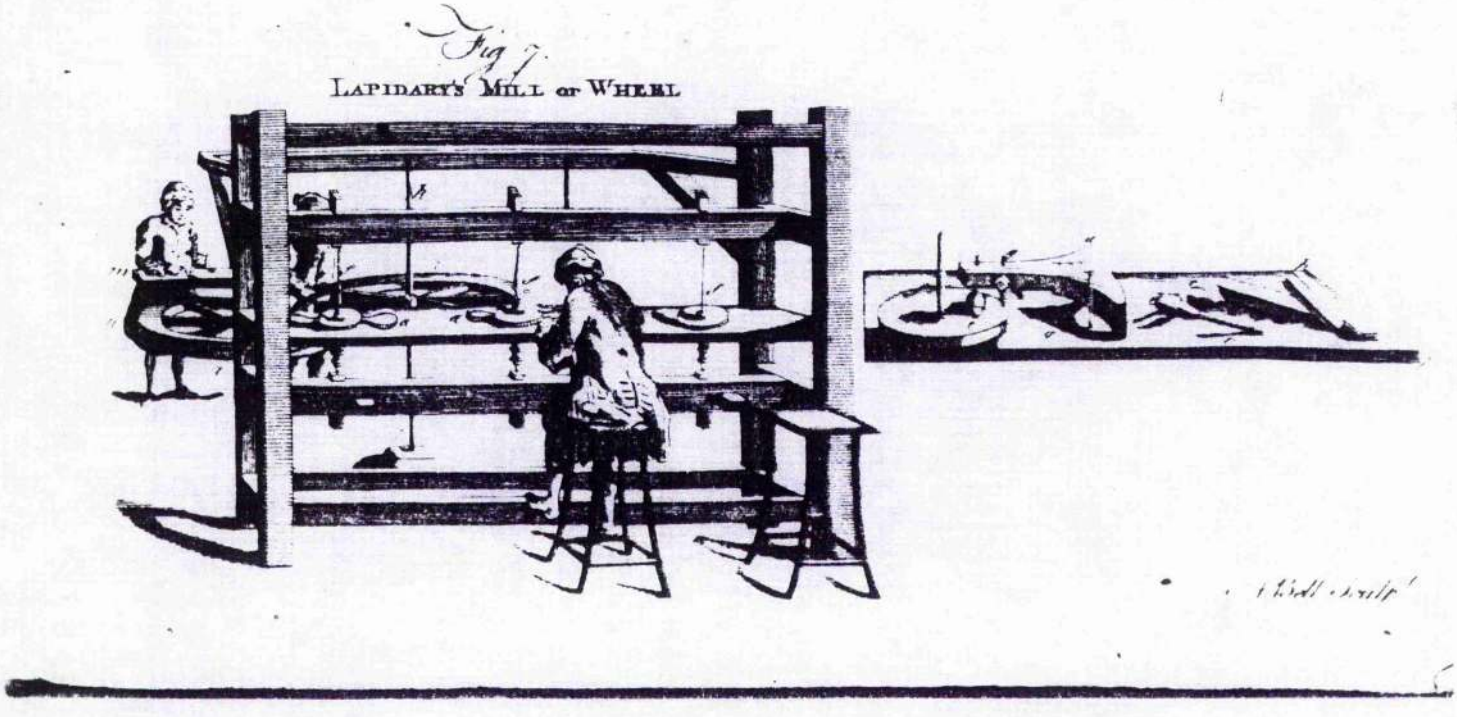


Fig.1 + 2 Illustration of 18th century gem carvers from Diderot's *Encyclopedia,* and The 1773 edition of the *Encyclopedia Britannica*



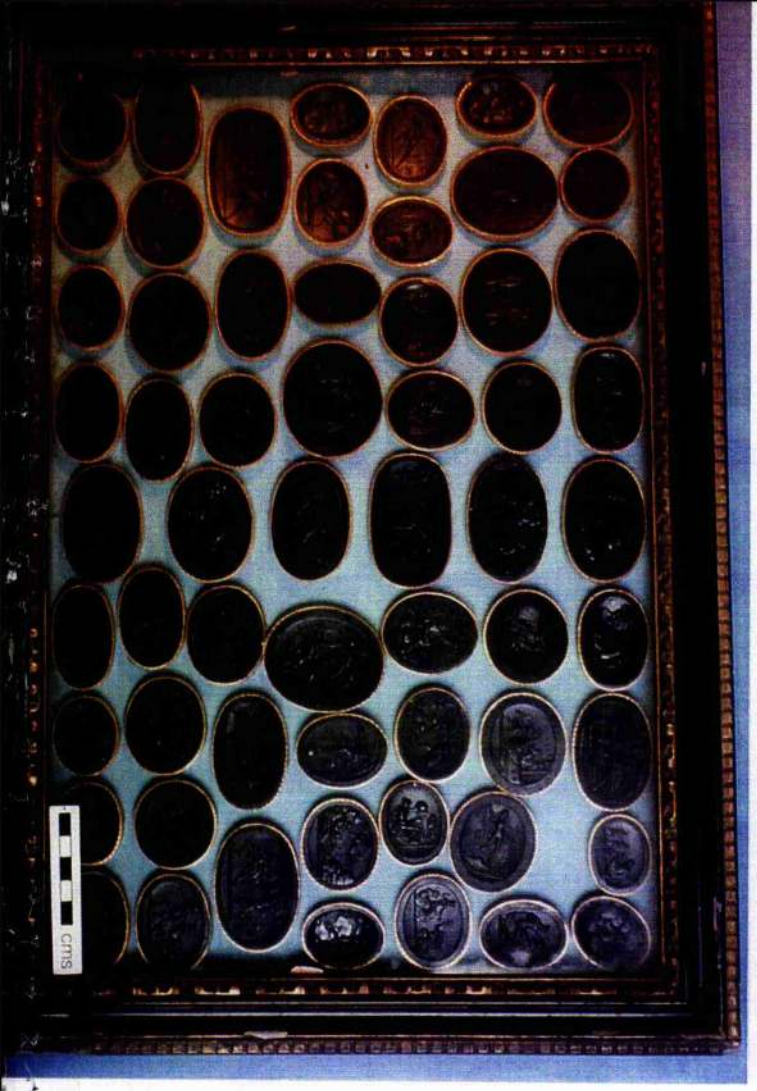


Fig.3

Fig. 5

Fig. 6

Fig. 4

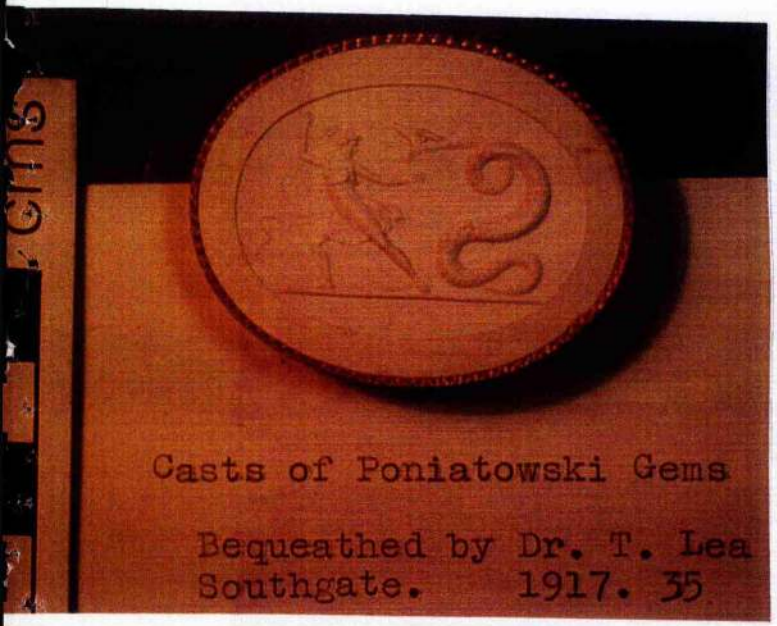


Fig. 8

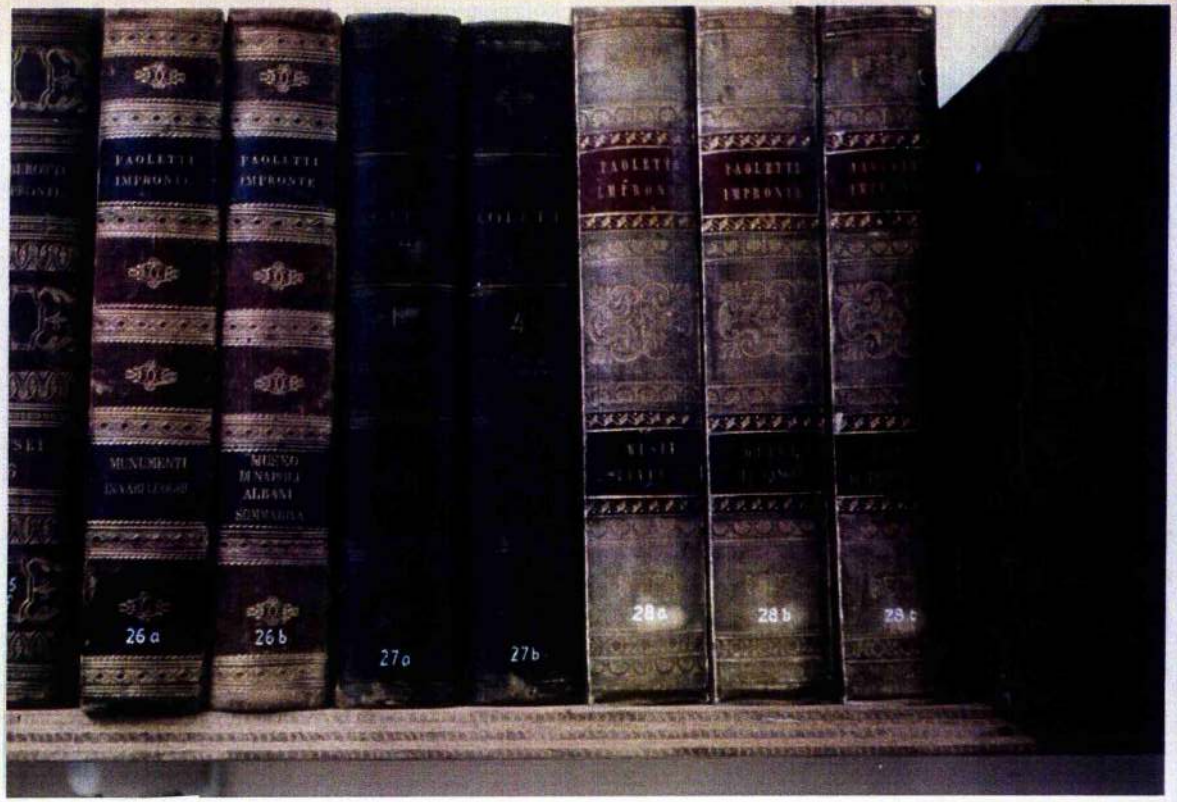


Fig.10

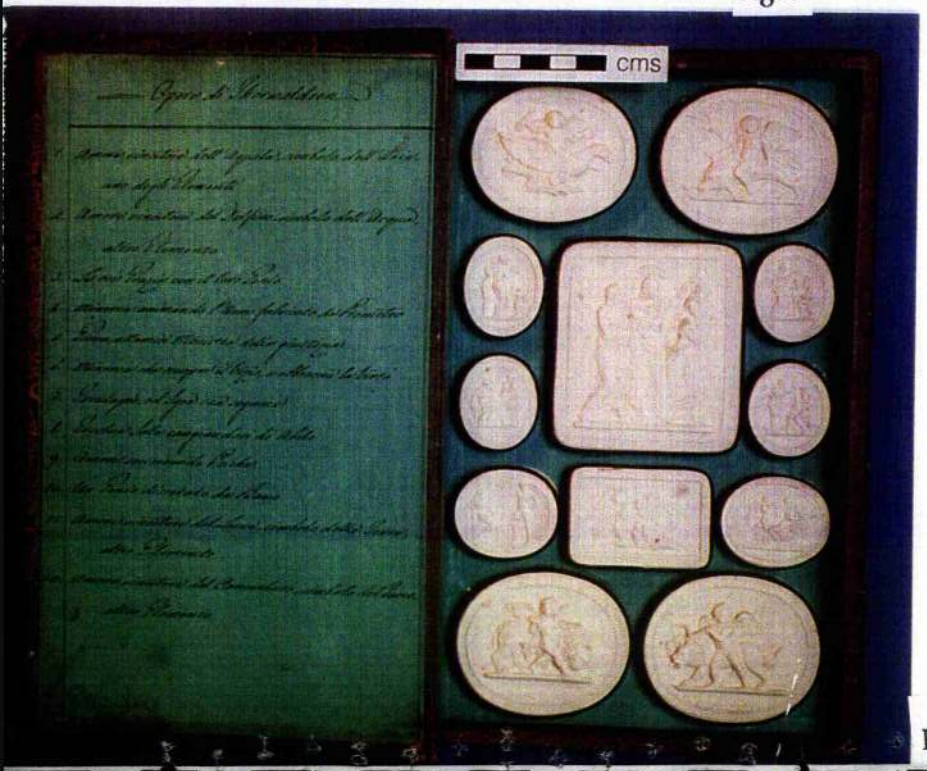


Fig. 7

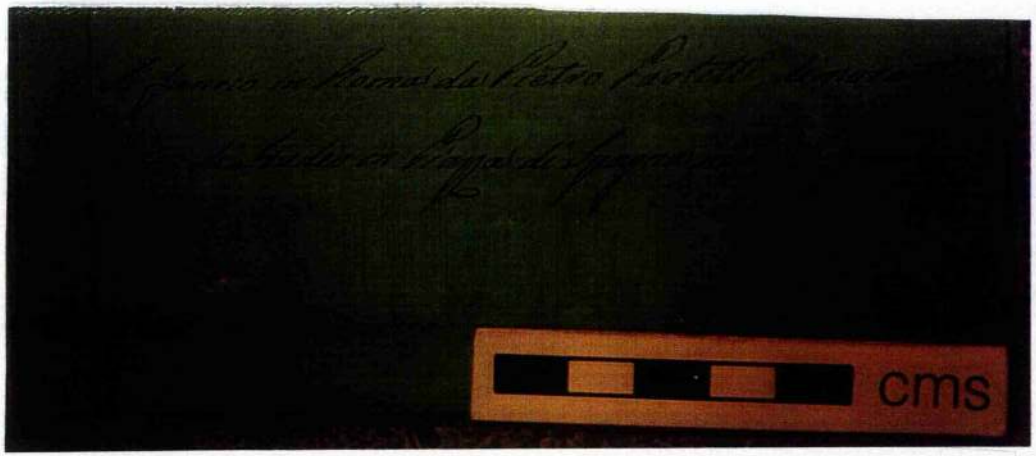
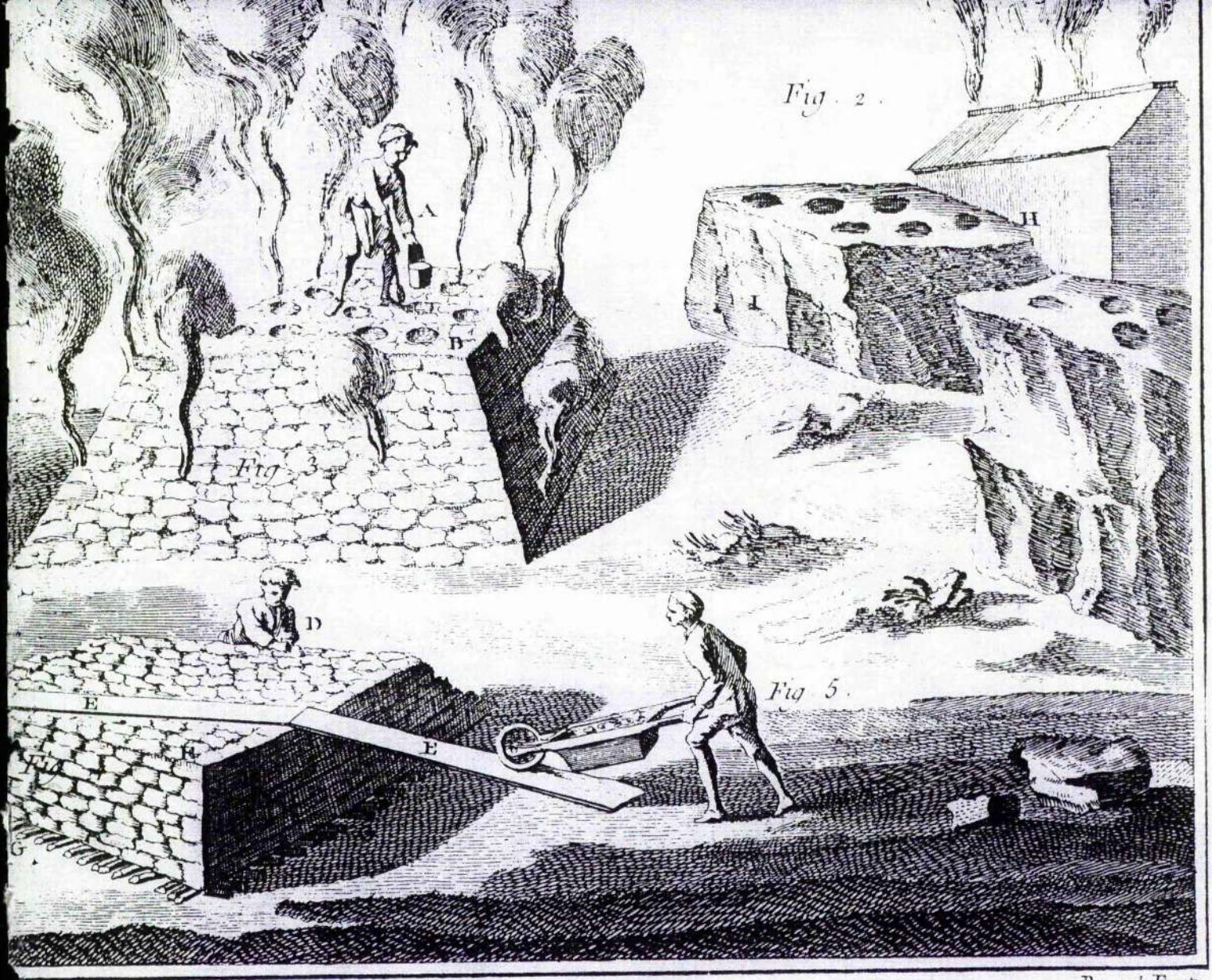


Fig.9



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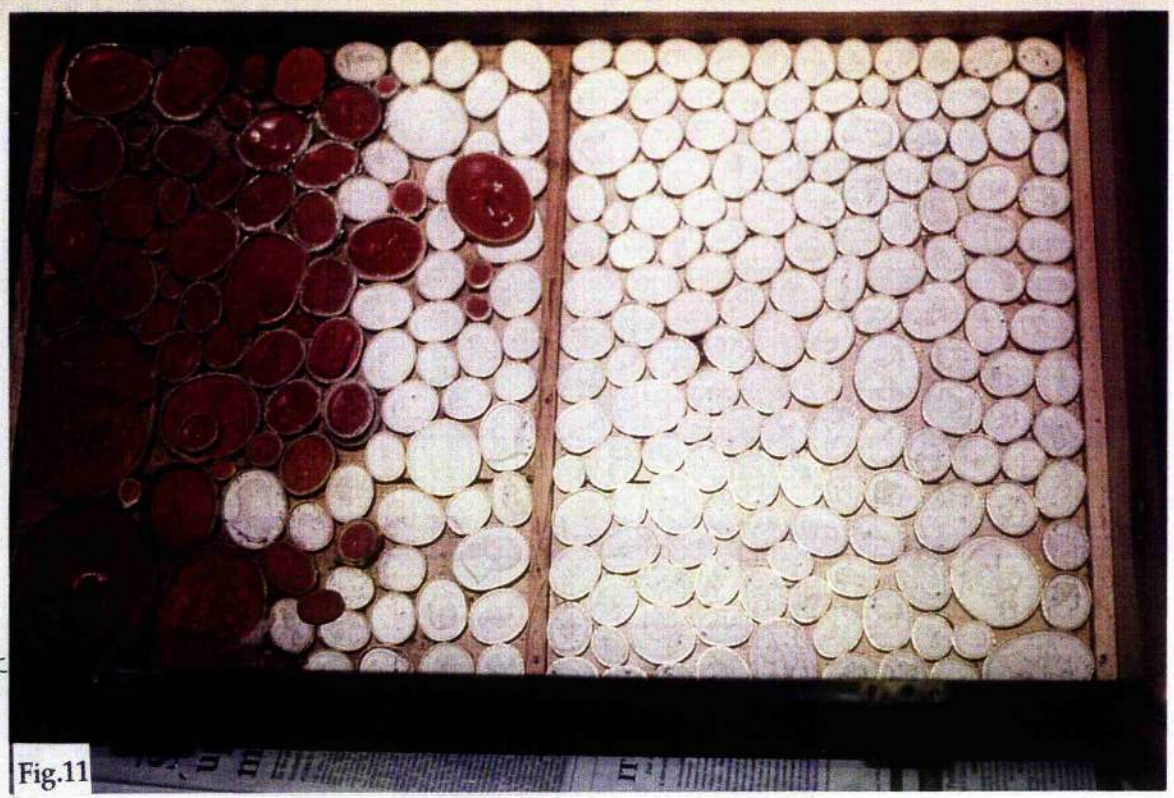

Fig.11

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Fig.13

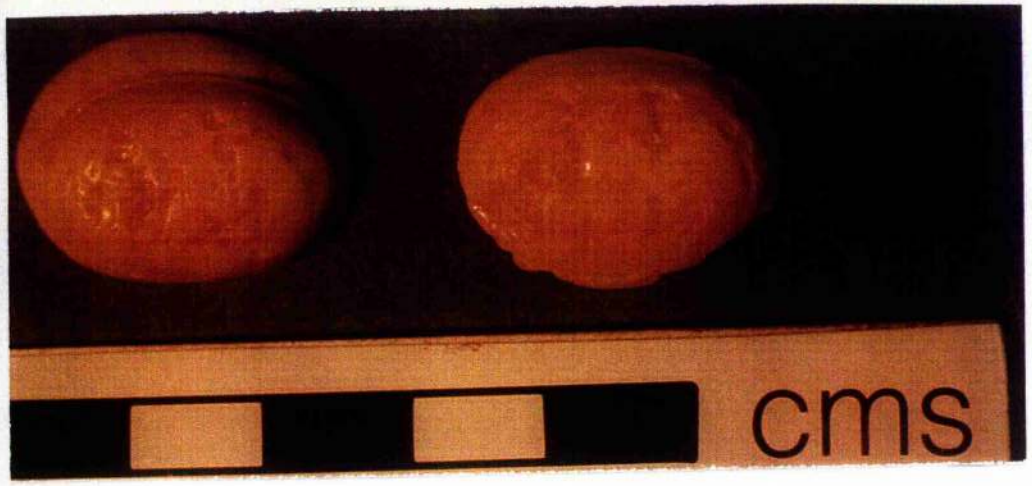
Fig.14

Fig.16

Fig. 18

Fig.17

Fig. 19



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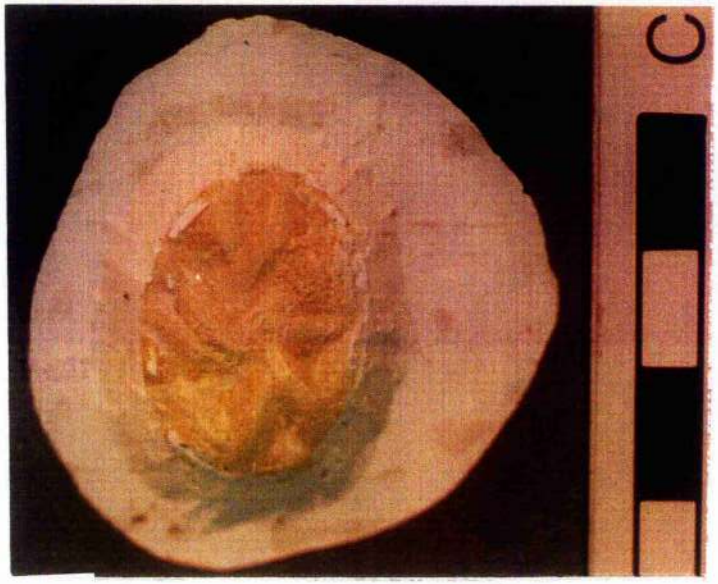

Fig.21

Fig. 22

Fig. 23

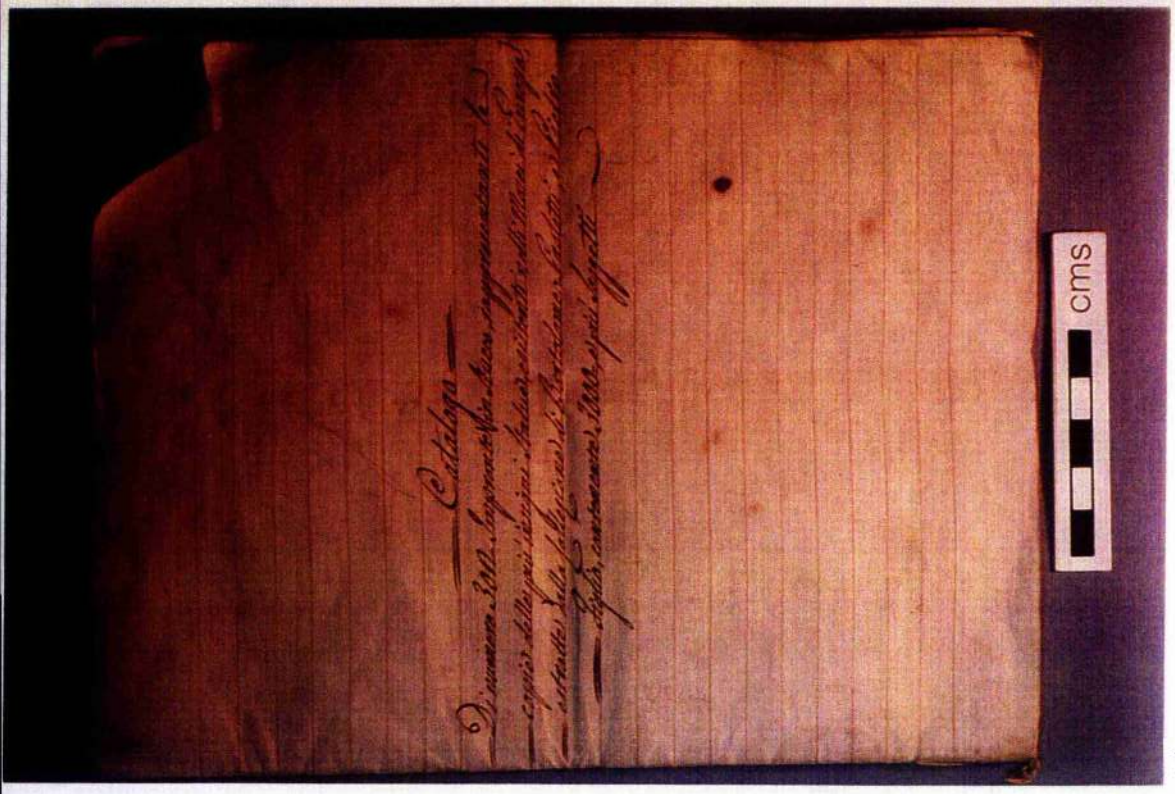

Fig.24

Fig.27

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Fig.25

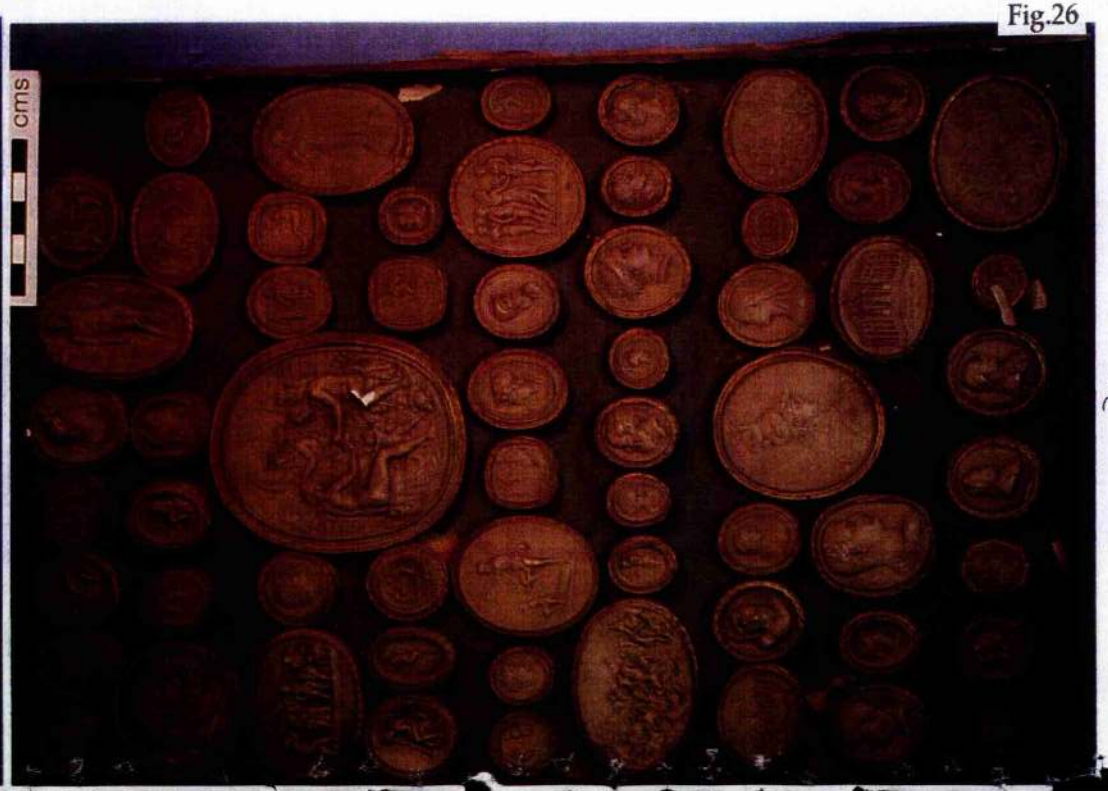

Fig.26

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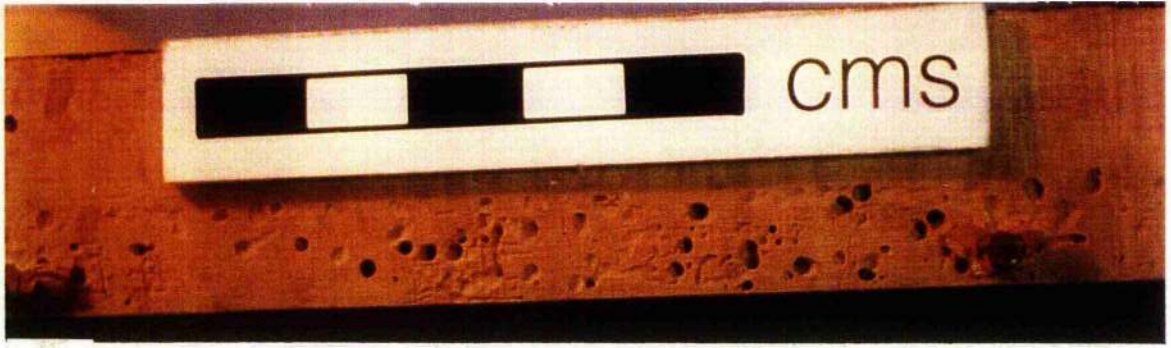
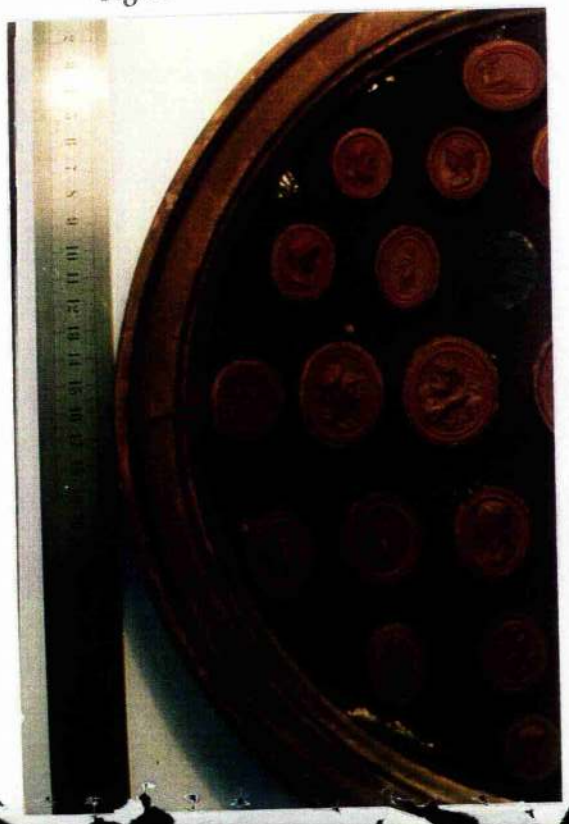


Fig.28

Fig.30

Fig.29

Fig.31



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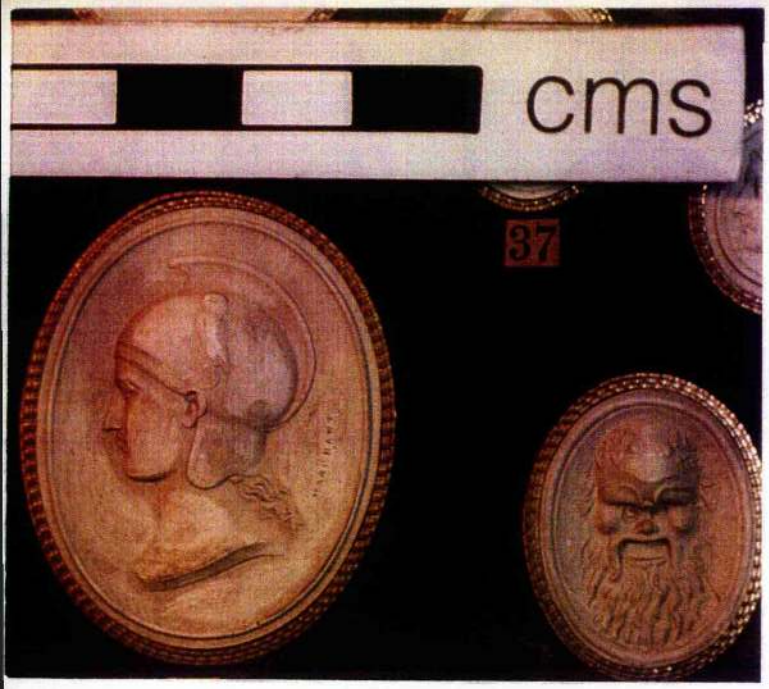
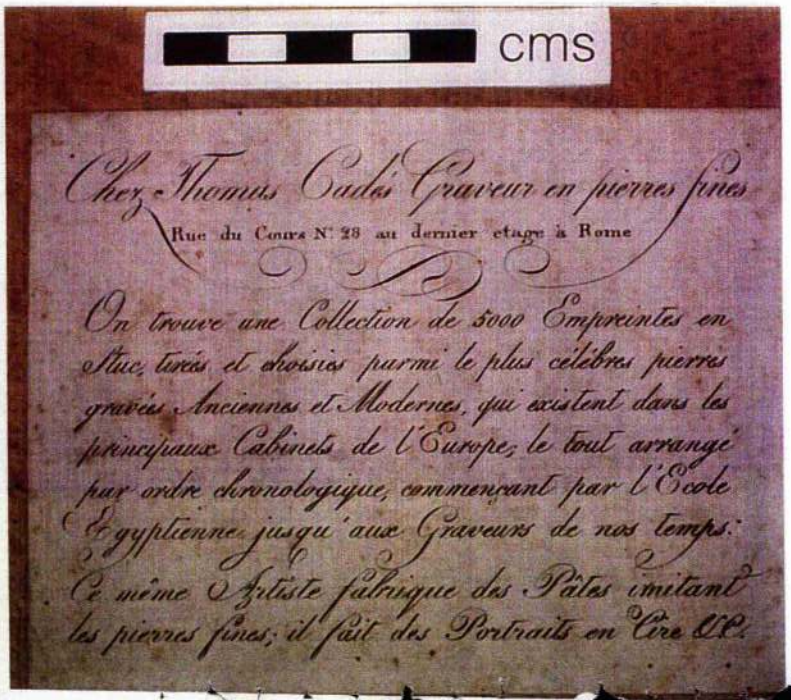


Fig.33

Fig.34



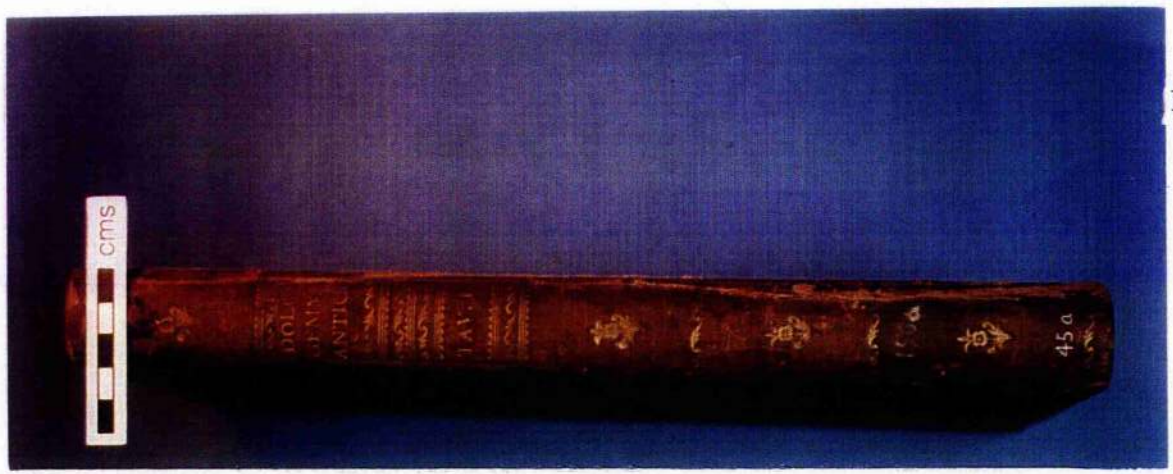


Fig.35

DESCRIZIONI

DI DUGENTO

GEMME ANTICHE

LE QUALI SI CONTIENE UN SAGGIO DEL VARIO DISEGNO
USATO DALLE PIU' COLTE ANTICHE NAZIONI

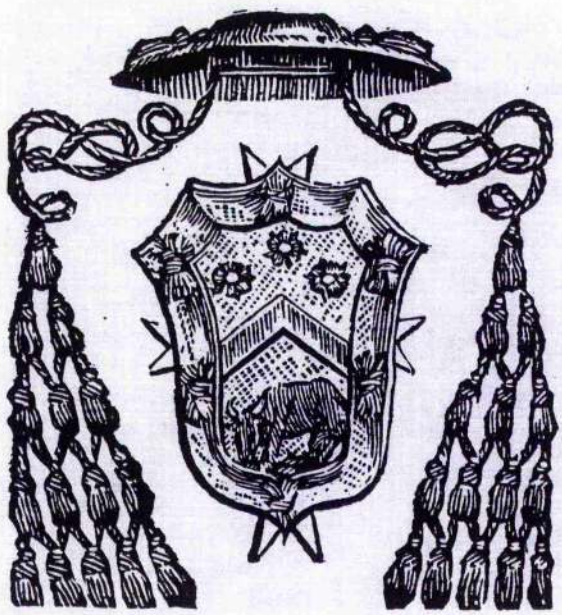
DIVISE QUESTE IN QUATTRO TAVOLE

DA FEDERICO DOLCE

OPERA UTILISSIMA

PER LA GIOVENTU' STUDIOSA

DELLE BELLE ARTI.



IN ROMA M. D. CC. XCII.

PER ANTONIO FULGONI

Con licenza de' Superiori.

Fig.36 Front plate from the catalogue accompanying Dolce's *impronte*.

Fig.37

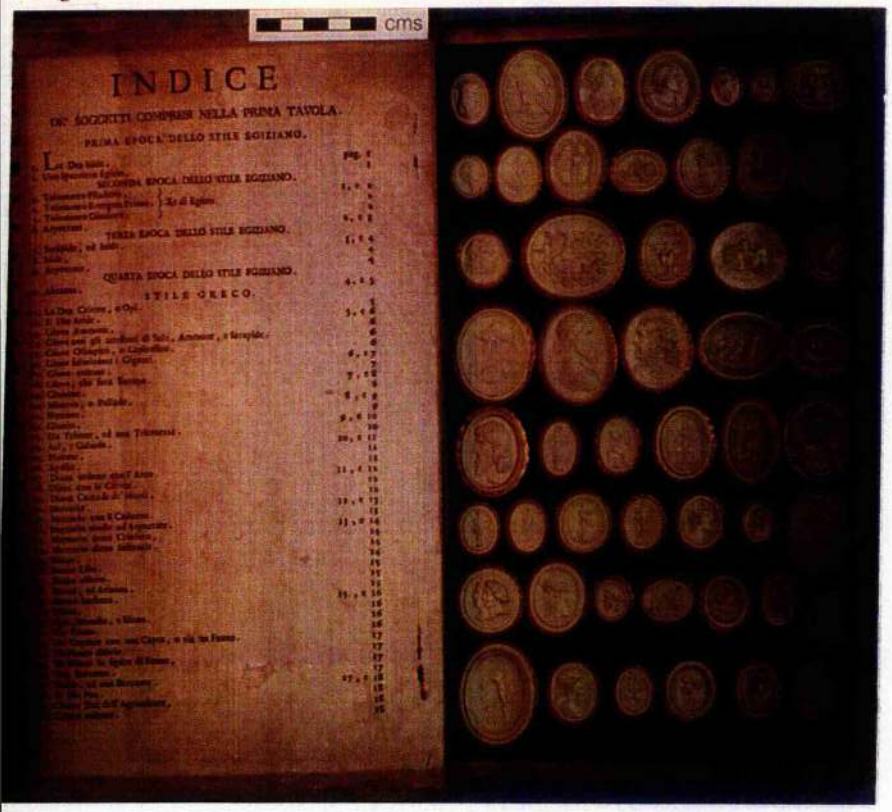
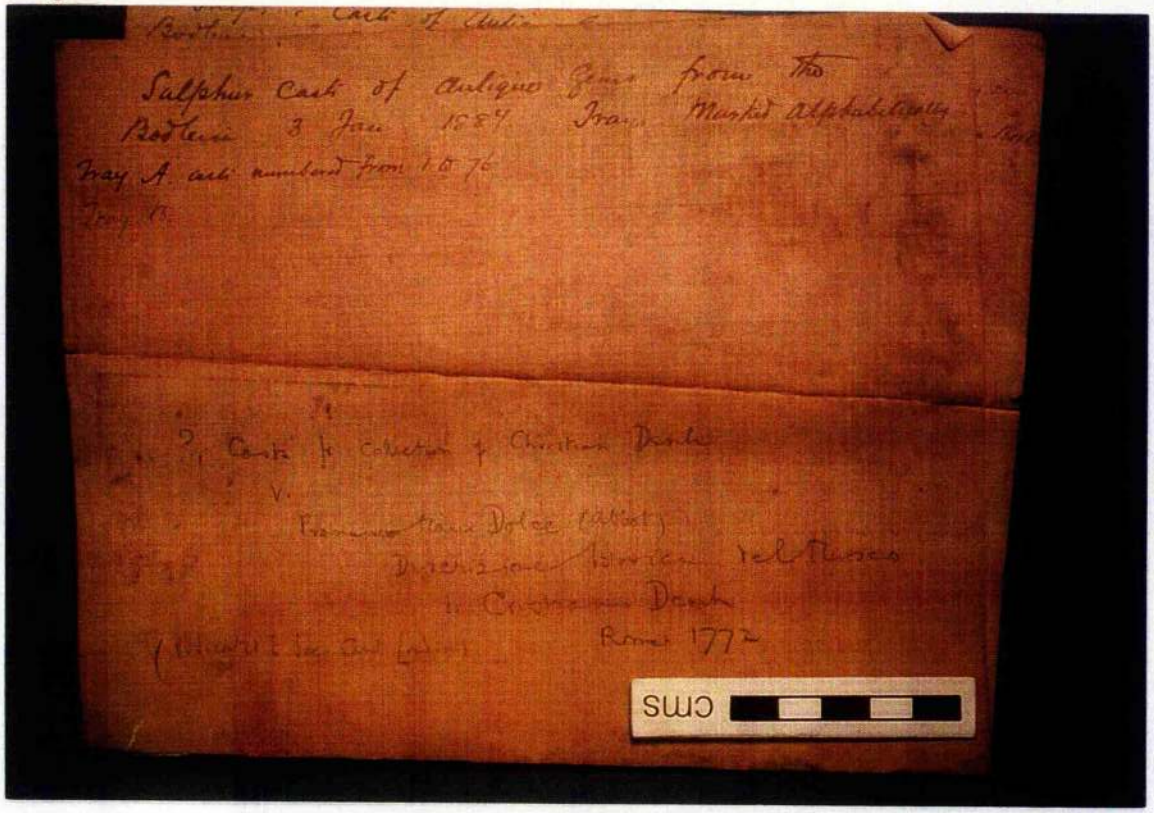


Fig.38



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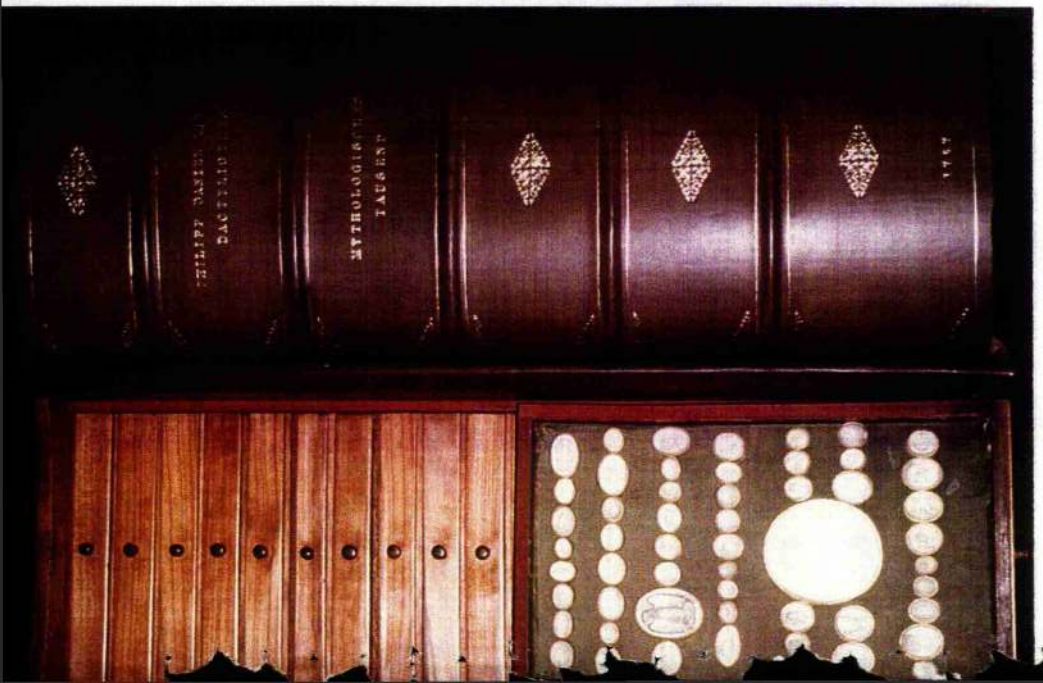


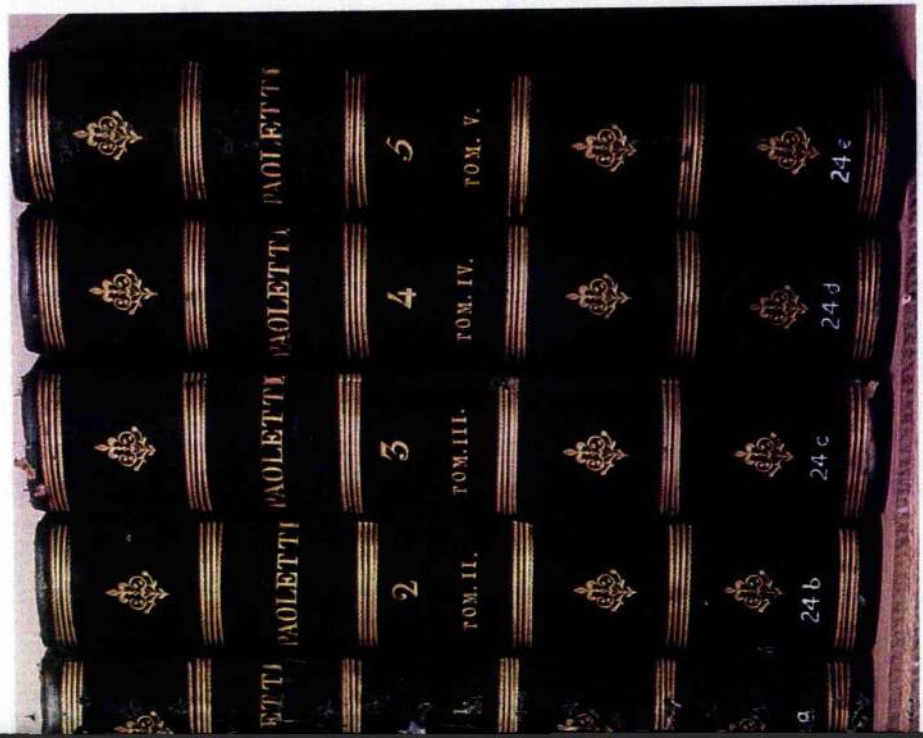
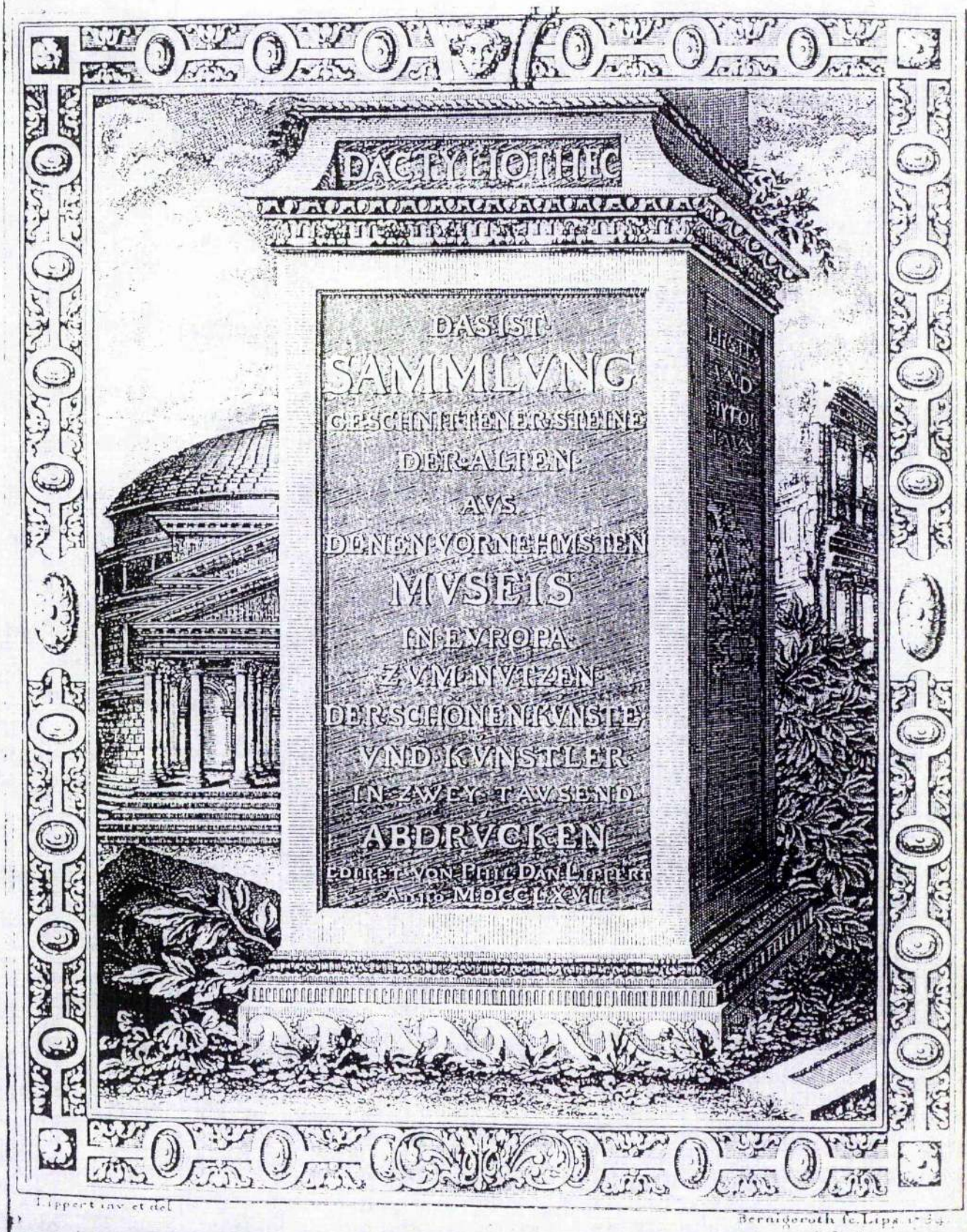


Fig.40 Title page to Lippert's catalogue.



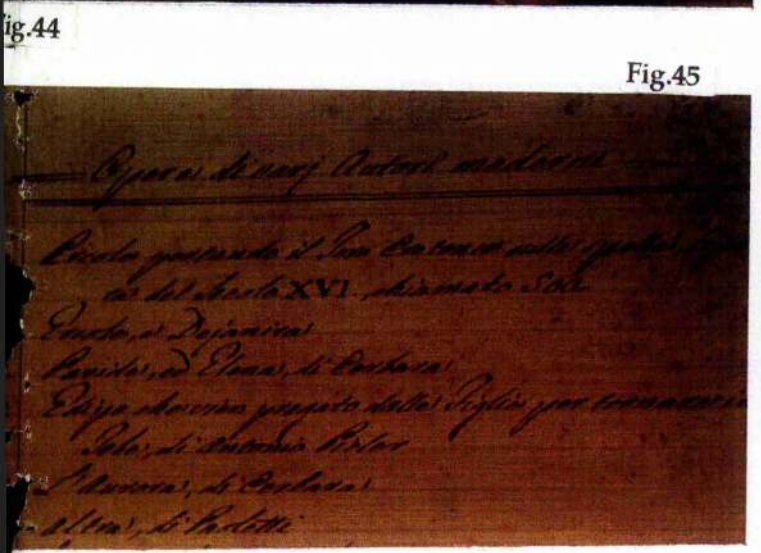


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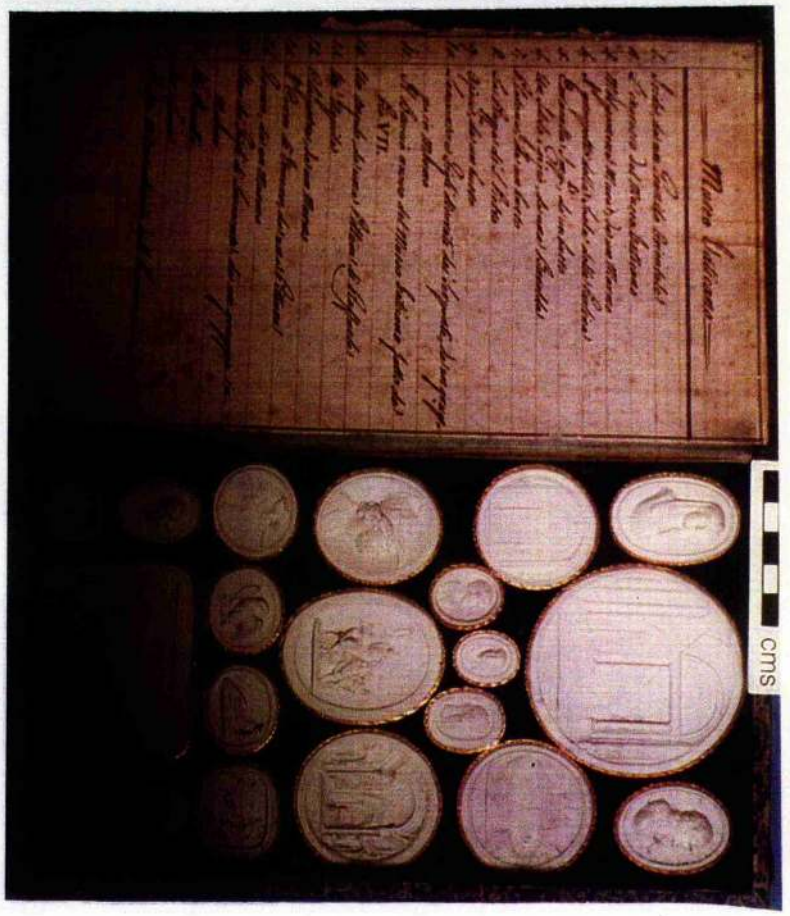
Fig.45



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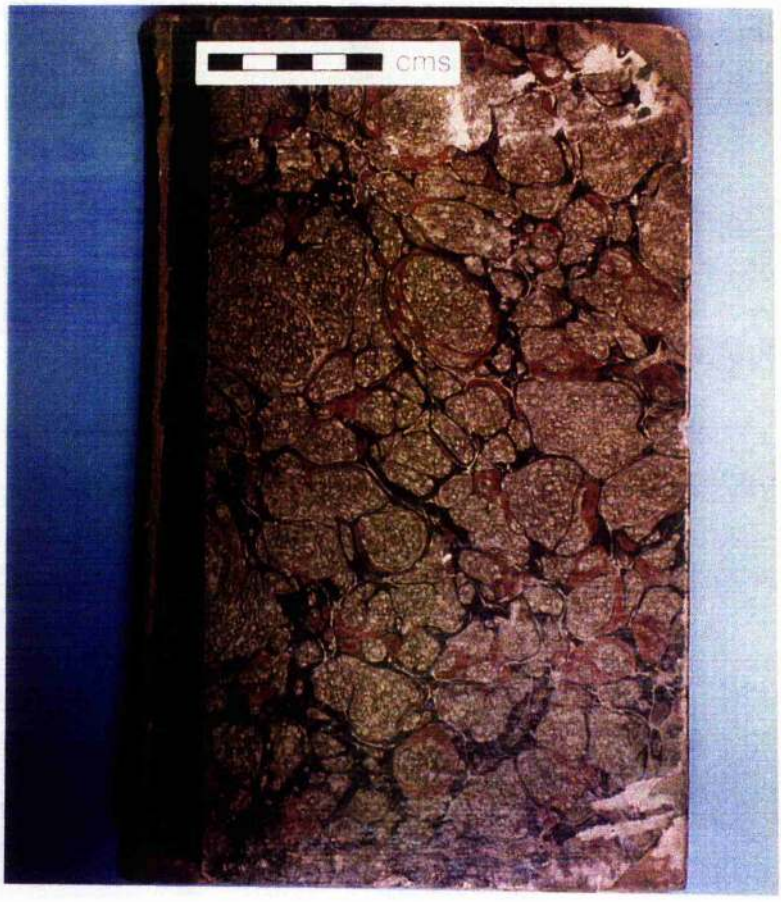

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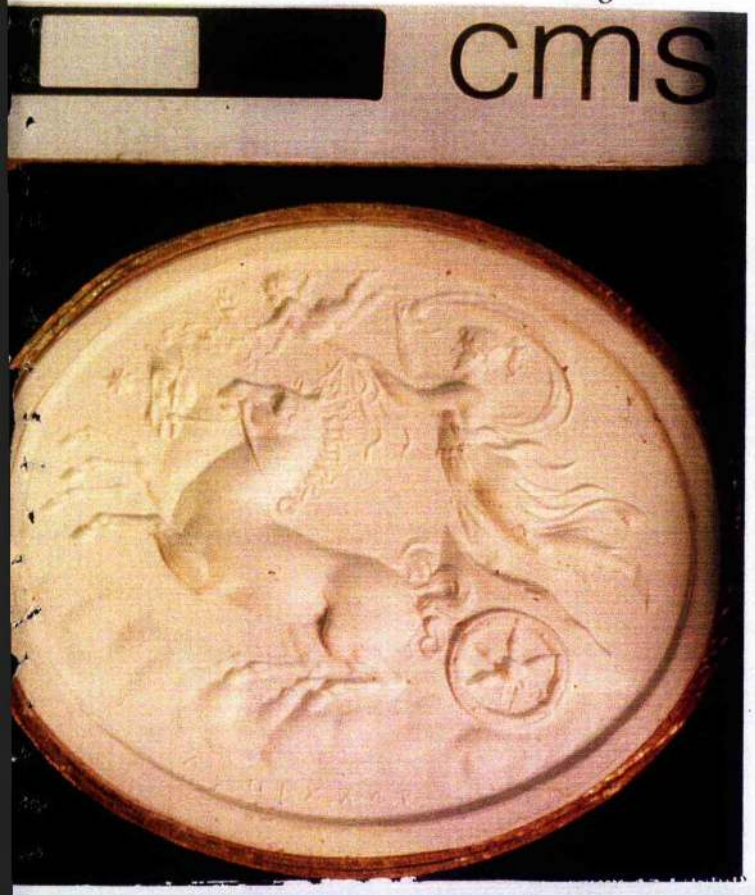


Fig. 47

Fig.48

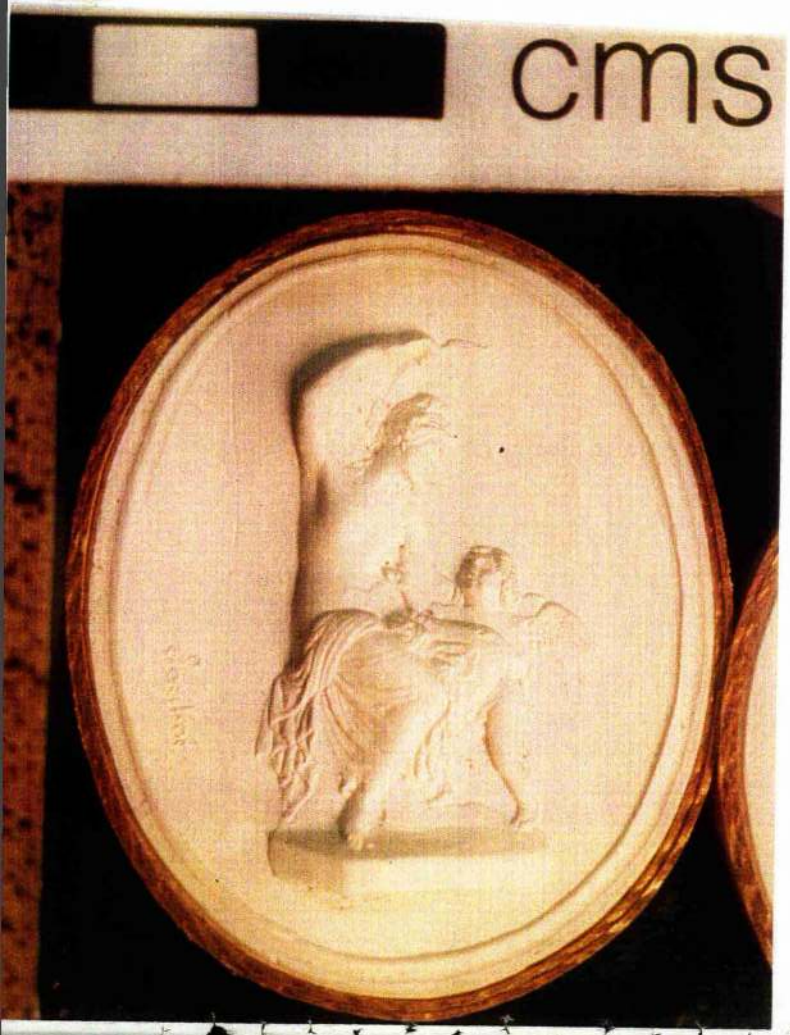
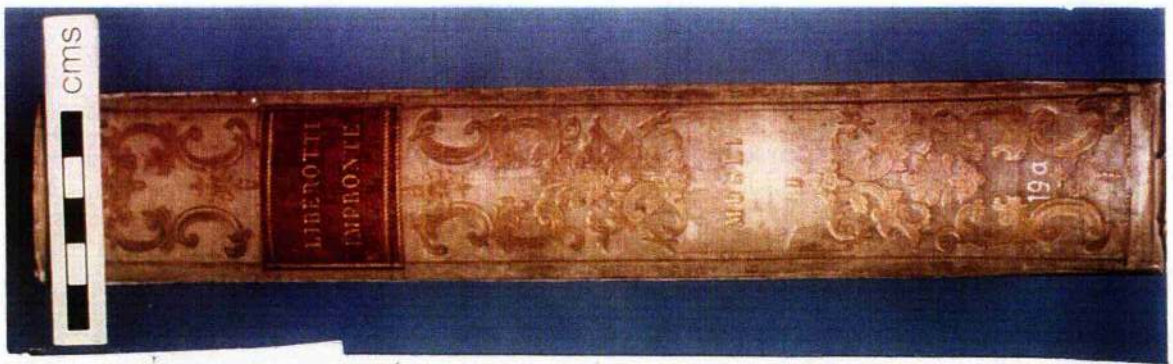


Fig.49

Fig.50



La presente Collezione, ed altre raccolte si Antiche, che Moderne ritrovansi presso Pietro Bracci fab. bricante di Smalti d'ogni colore Dette Paste tanto in incavo, che in rilievo

Alloggio In Via di Capo le Case incontro la piccola porta di S. Andrea delle Fratte N.° 31

Roma

cms

Fig.51

Fig.53

Fig.54

Fig.55

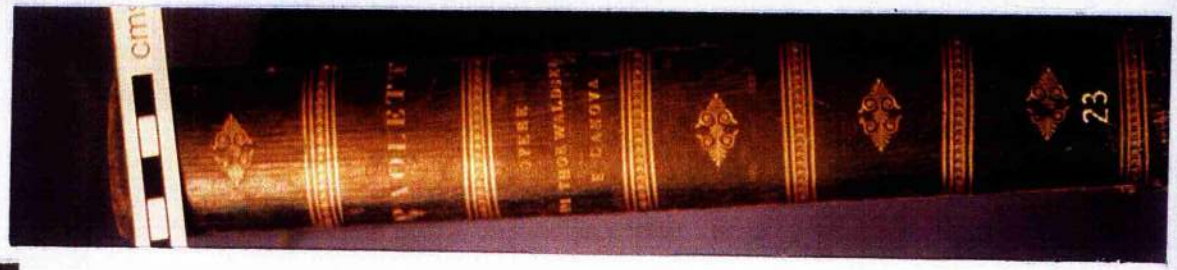


Fig.52

Presso Pietro Bracci fabbricante di Smalti d'ogni colore *Dette Paste*, ritrovansi Collezioni d'Impronte d'Antichi, e Moderni Incisori di Gemme principiando dallo stile Egizio, ed in seguito l'Etrusco; Maniera Greco-Etrusca; Greca; Greco-Latina; Latina; stile del Cinquecento, ed in fine i migliori Autori Moderni a prezzi onestissimi.

Alloggia *in via di capo le Case* incontro la piccola porta di S. Andrea delle Fratte Num. 31. in Roma.

Fig. 56

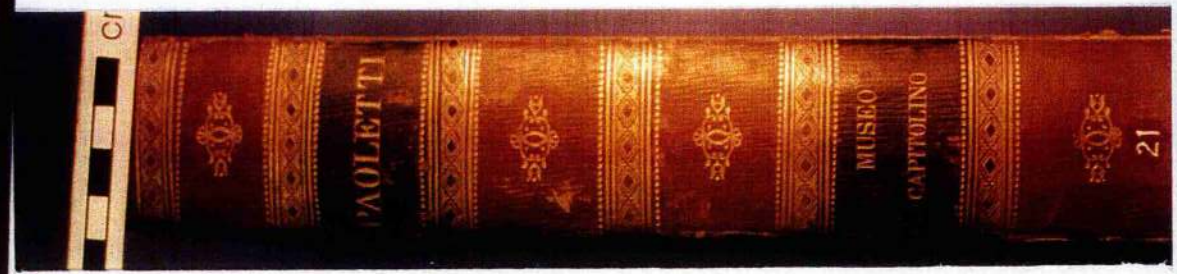


Fig. 57

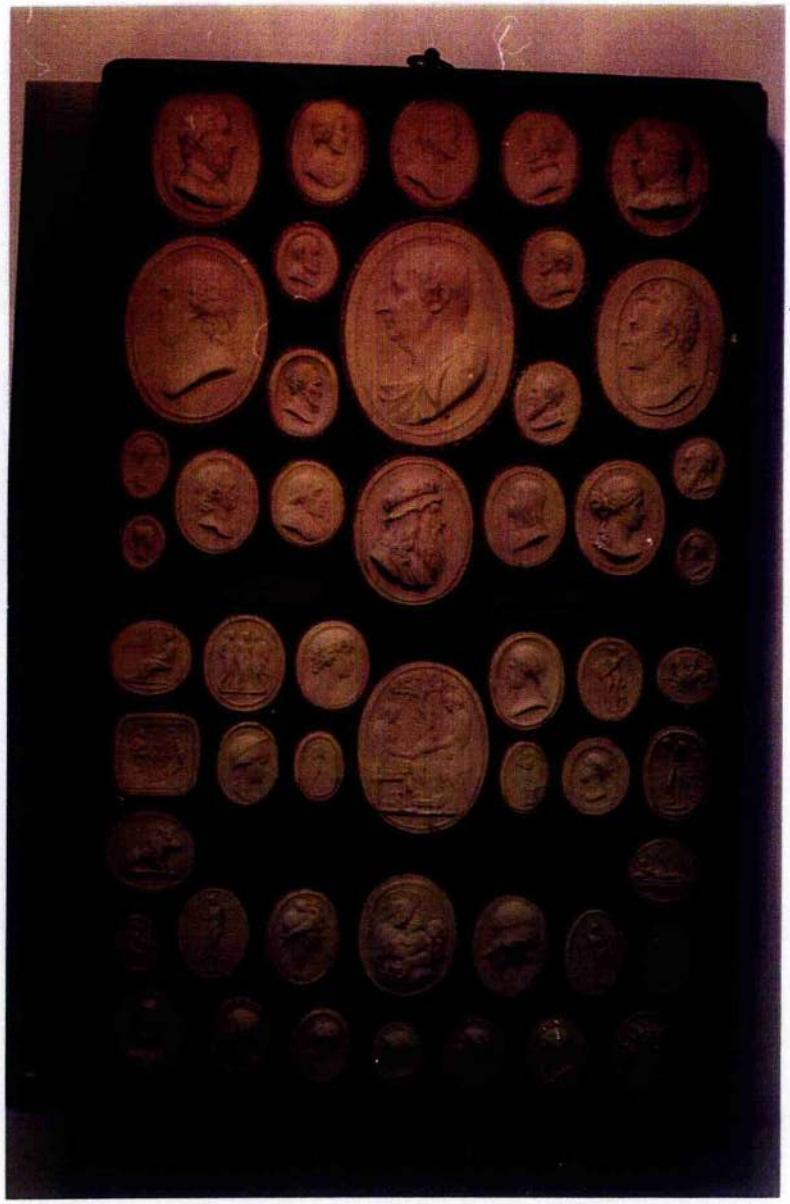


Fig.58

Title page to D'Hancarville's academic pornography.

MONUMENS

DU

CULTE SECRET

DES

DAMES ROMAINES,

POUR SERVIR DE SUITE

AUX MONUMENS DE LA VIE PRIVÉE

DES XII CÉSARS.

A CAPRÉE.

CHEZ SABELLUS.

M. DCC. LXXXIV.

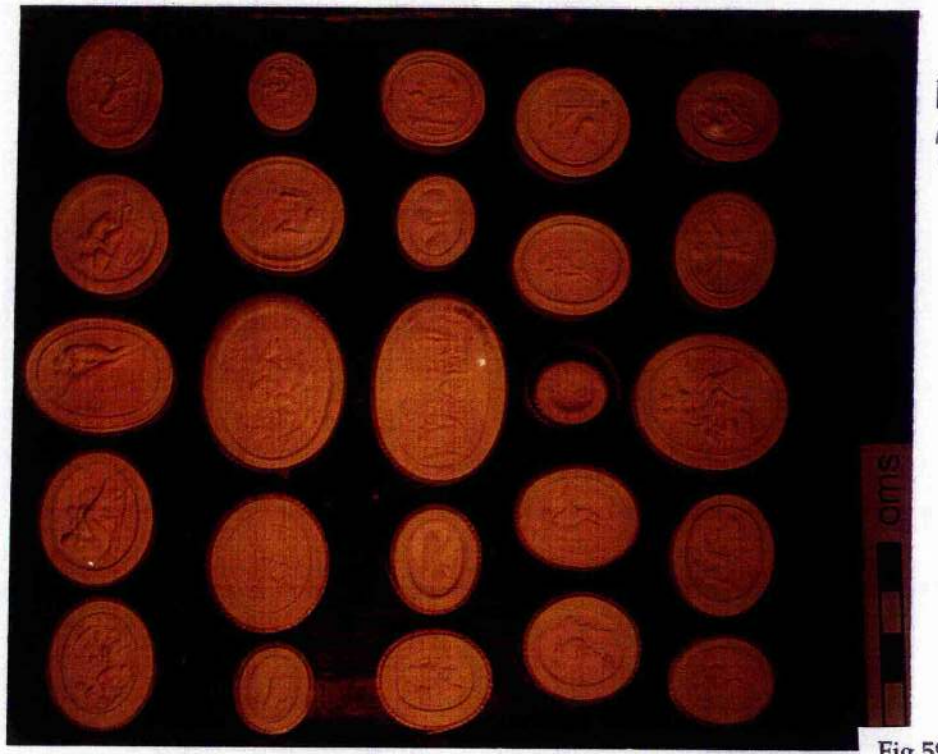


Fig.59

Fig.60

Fig. 61

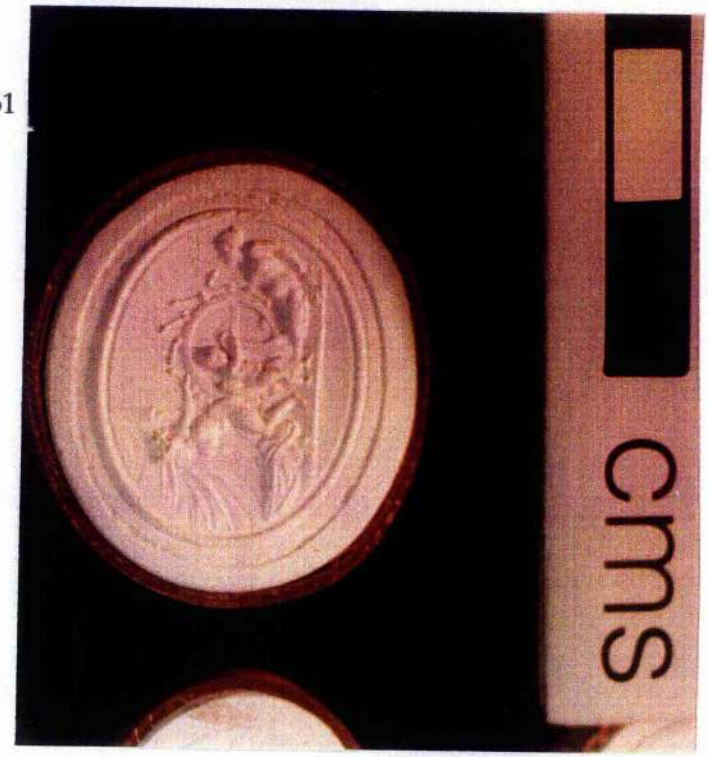


Fig.62

Fig.63

Giuseppe Arcimboldo. **b** Milan, 1527. **d** Milan, 1593
Summer. 1573. Oil on canvas. **h**76 × **w**63.5 cm. **h**30 × **w**25 in. Musée du Louvre, Paris

Fig.64

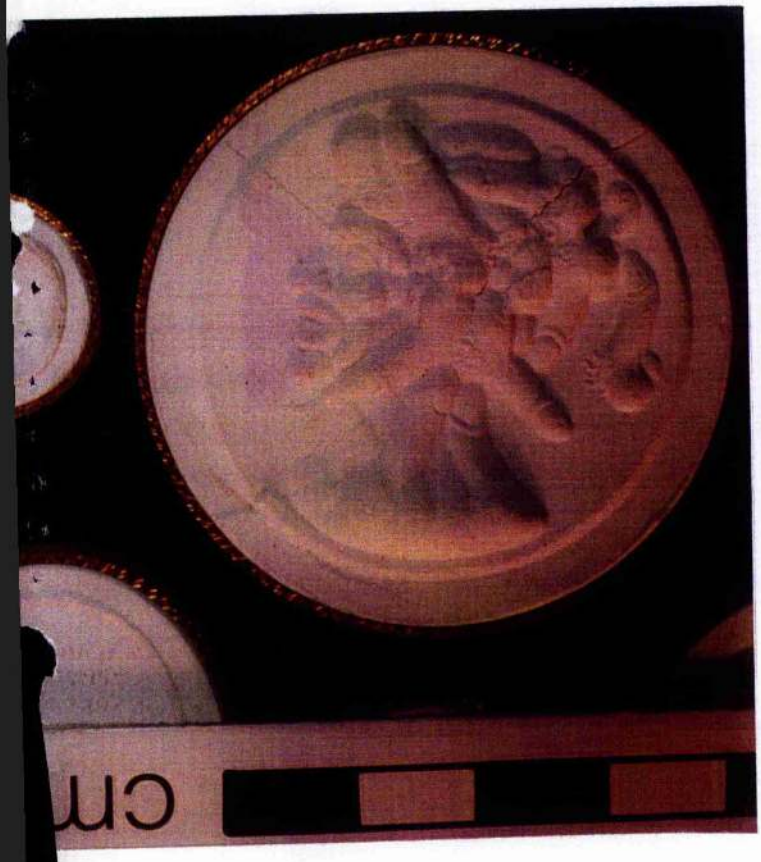


Fig.65