Messing About with Masterpieces: New Work by Giambattista Piranesi (1720–1778)

By Adam Lowe

Fig 3c. *Detail of cast marble Chimneypiece, after Piranesi, 2010, cast white marble scagliola.*

'I have need of great ideas, and I believe that if I were commanded to design a new universe, I should have the folly to undertake such a thing.'
— *Giambattista Piranesi*

T he 18th century printmaker Giambattista Piranesi is best known for his views of Rome (*Vedute di Roma*), those beautifully observed, deeply Romantic evocations of decrepit grandeur, and for his loose and labyrinthine invented prisons, the *Carceri*. Both have been hallmarks of refined, if slightly dusty, interiors for two centuries, but a recent exhibition at Fondazione Giorgio Cini in Venice argued for a new view of the artist as a multi-tasking globalist in tune with 21st century technological adventurism. Conceived by architect and designer Michele de Lucchi, the exhibition offered a variety of avenues that bring Piranesi into our time: a full-scale facsimile of the Caffè degli Inglesi, the Roman coffee shop decorated by Piranesi, and a digital animation that allows the viewer to slide (virtually) through the dense and contradictory spaces of the *Carceri*. The most provocative items on display, however, were the elaborate decorative objects—two-meter high candelabra, massive vases, Graeco-Roman altars—whose designs had appeared in Piranesi's publications of the 1760s and 1770s, but which had only now been given three-dimensional form.

Piranesi's achievements as a designer and architect are less generally known than his other work, but it was here that the antiquarian romance of the Views and the free improvisation of the Prisons joined forces. In two publications[1] chock-a-block with original creations and classical reinterpretations of chimneypieces, chairs, candlesticks and coffee pots, Piranesi set forth a design philosophy based

Fig 3d. *Detail of stereolithographic resin model of a Chimneypiece, after Piranesi, 2010.*

antiquarian activist slogan: *"Tradition is not the worship of ashes, but the preservation of fire,"* and is intrigued by the potential of contemporary technologies to restore to cultural artefacts their 'sense' "(both the 'meaning' and the 'sensuous experience.')" *Factum Arte supplied the technological sophistication and material connoisseurship to effect the transformation of 200 year-old etched lines on paper into stone, silver and gold-plated bronze.*

Below, Factum Arte Director Adam Lowe describes the thinking and the processes that went into the production of these objects, and their implications for the way we treat the gifts of past and of the present. *–ST*

ORIGINALITY AS A PROCESS
The Piranesi Collection

Creating new objects from Piranesi's designs means treating our cultural heritage as a living and dynamic sourcebook. The objects discussed here are not copies of existing artifacts but interpretations of Piranesi's designs 'performed' for the first time. The starting point was Piranesi's own approach to antiquity and to design, especially his emphasis on a speculative and unfettered imagination operating in defiance of what he felt to be a growing tyranny of theory. The end result is a group of objects that merge new technology and ancient craft skills.

This 'tyranny of theory' refers to a particular conception of the Graeco-Roman debate, which used Platonic ideas to support the supremacy of Greek sculpture and architecture as an embodiment of a single, pure, abstracted truth. (I believe our current understanding of originality suffers from the same theoretical shortcomings.) For Piranesi this reductive approach was anathema, and he vigorously asserted that its over-simplification misrepresented the achievements of the Romans and, by extension, the creative urge itself. Piranesi's famous phrase,

on eclecticism and the fecundity of both man and nature, a position in direct opposition to the trend of neo-classical restraint then overtaking the continent. In the years after Piranesi's death the fastidious "Greek" rigor advocated by Johann Joachim Winckelmann and given form by Antonio Canova and John Flaxman carried the day, while Piranesi's eccentric concoctions fell from view.

Piranesi was a native Venetian, and while Venice may seem a city primarily intent on pickling its past in ever prettier jars, the Cini Foundation has been attempting something more interesting and more difficult: from its picture-perfect perch on the island of San Giorgio Maggiore, it has been working to bring the past into productive proximity with the present. This has entailed some unconventional thinking about authenticity and cultural heritage. In 2003, the Foundation collaborated with the Louvre and Madrid-based fabricators Factum Arte on a hyper-accurate 1:1 facsimile of Paolo Veronese's *Wedding at Cana,* which they installed in place of the one looted from San Giorgio by Napoleon in 1797. Though

everyone knows the facsimile is not the 'real thing,' it is visually indistinguishable from the real thing and, unlike the real thing, it is hung in the location for which it was designed. It can be argued that the facsimile provides an experience closer to Veronese's vision than that currently offered by the heavily restored canvas in the Louvre that he actually painted.

The Piranesi pieces, however, are not facsimiles of objects that exist elsewhere: they are new three-dimensional realizations of Piranesi etchings. The objects portrayed in the etchings were rendered in three dimensions through a combination of 3D scanning and 3D modelling tools such as Zbrush; the data was then used to create three-dimensional models through routing or stereolithographic printing; these models were used to create molds for bronze, silver, or cast stone before being assembled and finished in ways that have not much changed since Piranesi's time. The idea to produce objects based on the prints came from Pasquale Gagliardi, the secretary general of the Cini Foundation, which holds a substantial Piranesi collection. Gagliardi likes to quote Mahler's

"Col sporcar si trova" can be translated as 'by messing about, one discovers.' 'Messing about' suggests excess and undirected play, as well as an acceptance of the tolerance required for any system to work. Dirt, disorder, serendipity and noise are all intrinsic to the process of imaginative interpretation. These elements are inherent in physical touch and in the act of making

The selection of objects to produce was made by Michele De Lucchi, the Piranesi specialist John Wilton-Ely and myself, working from De Lucchi's conviction that Piranesi should have been born 300 years later, when he would have been capable of exploiting all the technological potential that we have. Most were selected from *Diverse maniere,* Piranesi's catalogue of new designs for fireplaces, furniture and decorative objects; three were selected from *Vasi, candelabri...,* a collection of antique object portraits by Piranesi.

The Isis Tripod from *Vasi, candelabri...* (Wilton-Ely 929)

Piranesi's etching is based on a tripod from the 1st or 2nd century AD said to have been discovered in the temple of Isis in Pompeii in the 1760s. His model, however, was not the tripod itself (now in the Museo Nazionale in Naples), but rather a drawing from Vincenzo Brenna's 1770 survey of Roman relics. Brenna's conception of antiquity was a theatrical one, and this tripod is a clear example of the Roman aesthetic of appropriating influences. Piranesi's design differs in subtle but significant ways from the Pompeii tripod: his proportions are more vertical, the position of the sphinx/harpy is altered, the three legs are not joined by a central bar, the pedestal is composed of two intersecting arcs, the frieze of skulls and garlands has been 'improved.' His approach to antiquity was more imaginative than the restrained recording and 'objective' restoration that is common practice today. In *Diverse maniere,* Piranesi urged the modern designer to emulate

what he saw as the creative fertility of Roman antiquity by freely combining motifs from the past to produce works of striking originality, advocating connoisseurship and 'improvement' over slavish imitation of an original.

To make the *Isis Tripod,* a team of digital modellers worked to breathe life into Piranesi's complex and contradictory designs with a range of 3D modelling software. Their work was then elaborated with forms that had been scanned from existing objects, including details of Piranesi's design made by

hand and plaster casts of well-known Roman, Greek and Etruscan statues. These elements were integrated and reworked to create a coherent digital matrix, from which three-dimensional objects were printed in resin using the process of stereolithography.[2] At one moment things existed in a virtual realm, mathematically pure and theoretically perfect—at the next they had been mediated, transformed and returned to the physical and messy world of material objects. The resin object was not an end in itself, but part of a

Fig. 1c. *Detail of bronze "**Isis**" tripod with silver patination and alabaster. 2010, after Piranesi.*

Fig 1a. *Bronze **"Isis" Tripod** with silver patination and alabaster top, 2010, 90 cm high*

Fig 1b. *Giambattista Piranesi, antique bronze **Tripod** from* Vasi, candelabri, cippi, tripodi, lucerne, ed ornamenti antichi disegnati ed incisi dal Cav. Gio. Batt. Piranesi, *1778, etching plate: 52.6 x 38.2 cm.*

chain of transformations: it was encapsulated in silicon and cast in wax; the wax was encapsulated in plaster and burnt away allowing space for the liquid bronze. The cast bronze was then sandblasted, chased and finished before being subjected to heat and various patinas from 19th century recipe books, including 'dragon's blood' (a red resin that bleeds from a tree found on the Canary Islands.)

Looking at the finished silver-patinated bronze tripod is a viscerally strange experience. It addresses something fundamental about making, and the complex and messy language of things. My experience of this object, reputedly found in Pompeii, is through an image etched by Piranesi, a fulcrum with the antique tripod on one side and the contemporary realization on the other.

The Helix Tripod from
Diverse maniere (Wilton-Ely 878)

Diverse maniere appeared at the end of the 1760s, the most significant and productive decade in Piranesi's career

in terms both of theory and practice. Written in English, French and Italian to reach an international audience, it provided a clear statement of his radical aesthetic and an impressive collection of designs articulating his taste and interests. Chimneypieces dominate the first part, followed by commodes, clocks, vases, side tables, small candelabra, coffee pots, chairs and a surprisingly large number of doors for sedan chairs and coaches. His fascination with the way the past and present merge is evident everywhere, and he aired some remarkably original ideas on the stylization of natural forms in antiquity. The book calls for a coherent new system of design that combines a study of nature with all that is excellent in the past, whether it is Greek or Roman, Etruscan or Egyptian.

While this publication exerted a profound influence on the development of taste and style in Europe into the next century, it remains uncertain how many of the actual designs in *Di-*

Fig. 2b. ***Helix Tripod,*** *2010, gold-plated bronze, 90 cm x 32 cm, edition of 12.*

Fig. 2c. *Piranesi. Detail showing **Tripod** with helix, 1769, etching.*

verse maniere were executed. Chimneypieces were certainly made for the Earl of Exeter (Burghley House) and for John Hope, and various articles of furniture were made for Piranesi's patron, Monsignor Giovambatista Rezzonico,[3] including a pair of side tables now in the Minneapolis Institute of Fine Arts and the Rijksmuseum, Amsterdam.

Though the illustrations in *Diverse maniere* were designed to be clear enough to be taken to England or France to guide the fabrication of objects there, they are not exactly production designs. The drawing of this tripod, for example, conspicuously leaves out one of the legs in order that the complex detail on the central double helix can be clearly seen. The heads of the satyrs on each leg are cited as archetypes, as is much of the decorative pattern. Exact details of the fluted dish set into the top and of the floating barley-twist element in the centre are left unresolved. Piranesi clearly assumed that any skilled artisan-modeler would be able to improvise around the theme to produce a harmonious result. But when we compare the etchings with objects like the Rezzonico side tables, it is clear that the fineness and complexity of Piranesi's decorations have been significantly simplified by the craftsmen who carved them. Fortunately, with digital technologies an object can be modeled and then rescaled to produce levels of detail that would have been displayed in a cabinet of wonders in Piranesi's day, as an example of manual dexterity or perversion. Digital modeling and 3D output methods make possible an 'idealised perfection' that the grain of wood and stone, or the physical properties of clay, constantly resist.

In this tripod Piranesi continually added layers of decoration of diminishing scale, doubtless something he learnt from his close study of nature and shells, mixed with his native Venetian sensibility. He found elegance, not in reductive simplicity, but in the language of organic decoration and the poetic reverberations it stimulates.

Fig. 3a. **Chimneypiece**, *2010, white marble scagliola, 150 cm x 214 cm, and* **Fire Grate,** *2010, also after Piranesi, iron.*

Chimneypiece and Cast-Iron Fire Grate from *Diverse maniere* (Wilton-Ely 824, 842)

In *Diverse maniere* Piranesi gave particular prominence to chimneypieces, an interior feature with no precedent in antiquity. As there was little design history to respect and no function to fulfil other than providing a mantelpiece and embellishing a fire opening, the chimneypiece demonstrated the imaginative application of the past to a strictly contemporary requirement. (Moreover, as Piranesi astutely observed in the inscription on one of the plates (Wilton-Ely 867), the chimneypiece was a particularly important focus for ornamentation in England). Of the designs featured in *Diverse maniere,* sixty-one are designs for fireplaces, eleven in a flamboyant Egyp-

tian style. Emulating what he identified as the Roman approach, he merged Egyptian and Etruscan elements with Roman antiquity and the Renaissance.

Although he was an astute businessman and a respected connoisseur of the Classical world, Piranesi was also *'perfettissimo matto in tutti'*—the most perfect madman in everything[4]—and responses to his work were sharply divided. The academic painter James Barry (1741–1806) was a fierce critic, objecting to capitals carved 'in so fantastic a manner with so little of the true forms remaining, that they serve indifferently for all kinds of things, and are with ease converted into candelabra, chimneypieces, and what not. Examples of this kind of trash may be seen in abundance in the collections of Piranesi'.[5] But Horace Walpole, ever the Romantic, enthused about "the sublime dreams of

Fig 3b. *Piranesi,* **Chimneypiece** *design from*
Diverse maniere d'adornare i cammini ed ogni
altra parte degli edifizi, *1769, etching, 50 cm x
38.4 cm*

Piranesi, who seems to have conceived visions of Rome beyond what it boasted even in the meridian of its splendour... what taste in his boldness! What grandeur in his wildness! What labour and thought both in his rashness and details!'[6]

We attempted to follow Piranesi's lead, maintaining a playful incorporation of references while developing a new visual language utilizing the full palette of tools now at our disposal: the faces of the angels at the top of the chimney-piece are based on Iberian, Roman and Greek ideals, while the two Medusa heads at the bottom come from 3D scans of real faces, used in raw form, complete with all the 'artifacts' (technical or equipment errors) of the scanning process. The cornucopias incorporate a mix of organic computer modeling and 3D scans of actual fruit. The sheep's heads at each corner were modeled on the basis of their similarity to a Border Leicester sheep with its characteristic arched nose. The horns of a number of breeds were closely studied and a stylized horn form was derived to match Piranesi's print.

Throughout, the idealised is merged with the real. Two cameos in the centre of the fireplace, indicated in Piranesi's print only by a few sketchy lines, have been replaced with a 3D scan of a coin minted as a bit of Reformation propaganda. A topsy-turvy pope/devil head makes an oblique reference to the role of coins in bridging the conceptual gulf between sculpture and printmaking.

Though Piranesi specified the material as white marble, the complexity of the forms, the undercuts, and the fragile garlands of leaves, meant that carving in marble was impractical if not impossible. We concluded that the best option was to make the mantlepiece from marble, and the chimneypiece from scagliola, an imitation marble that can be cast as well as carved, and which had been used extensively in Piranesi's time (scagliola columns, walls and objects fill many of the great neo-classical houses of the 18th and early 19th centuries.) Scagliola feels, looks and even smells like marble. To complement the fireplace, a suitably understated set of fire furniture was selected from the many examples in the *Diverse maniere* and made in cast iron and waterjet-cut steel.

Porphyry and Bronze Altar from *Vasi, candelabri...* (Wilton-Ely 916, 917)

Scagliola was also used to make part of this altar, a strange, functionless object when Piranesi etched it in the 18th century, but one that again allowed him to play with the interaction of past and present. This was the only object in which we departed entirely from the material description included in Piranesi's print, but as Piranesi was the first to 'improve' the classical designs he was re-presenting, the rejection of white marble and the use of scagliola and bronze seemed unproblematic. The decision was partly practical, as with the fireplace, but it was also aesthetic. When interpreting two-dimensional designs from the 18th century as three-

4a. **Altar**. *Bronze and porphyry scagliola, 2010,
90 x 74 cm, edition of 12.*

dimensional contemporary objects in the 21st century, questions of taste are always present. Working on this non-utilitarian object, it seemed easy to stray into the territory of a Hollywood film or vulgar neo-classical excess. The wings, central column and the oval base were re-worked several times: sometimes it was the general shape that seemed unconvincing, at other times the detail and character of the

Fig 4b. *Piranesi, Antique marble* **Altar** *in the
form of a tripod from Hadrian's Villa in the
collection of Piranesi from* Vasi, candelabri,...,
1778, etching, 52.5 x 38.5 cm.

Fig 5b. **Coffee Pot, 2010,** silver, 25 cm high, edition of 12.

Fig 5a. Piranesi, detail showing **Coffee Pot,** 1769, etching.

rative use of nature as an ornament, a fault he attributed to the Greeks:

It could truthfully be said that no shrub nor tree exists from which they have not borrowed little stems or fronds to embellish their architecture... [¹] think it necessary to consider whether placing such things on cornices, friezes, or architraves is any more natural than, for example (as Horace says), painting a cypress tree in the midst of the sea when depicting a shipwreck.[7]

modeling. Throughout the process the form and the material seemed to be in conflict. Finally, bronze legs supporting a porphyry bowl felt right. Sebastian Beyro produced many different mixes of the scagliola 'porphyry' before we chose a deep purple/red base color with fine irregular white chips and a few specks of grey and black. Elena Arias, a conservator of metal objects at the Museo del Prado, helped with the patinas of the bronze in a range of tones from silver to black via some coppery greens.

Rome for visitors on the Grand Tour. (The only record of these paintings lies in *Diverse maniere*, where they appear alongside a series of elaborate Egyptian-style fireplaces.)

This coffee pot appears in *Diverse maniere,* which is subtitled *'Apologia in Defence of the Egyptian and Tuscan Architecture,'* and which includes two diagrams showing the influence of shell forms upon Etruscan vase designs. The coffee pot itself reveals a close study of how natural forms evolve. Piranesi was dismissive of the illustrative and deco-

Piranesi designed the spout in the form of a bee, but it was necessary to re-position the bee to produce a working spout. A modification was also made to the lid so that it stays in place when the pot is being used. We tested several fabrication processes, from manual beating and chasing to electro-forming, but the final solution was to sub-divide the digital model into discrete sections that were stereo-lithographically printed. These printed sections, complete with all the artifacts of the process, were then silicon mounded, cast in silver, soldered together, silver-plated, polished and finally finished by hand with
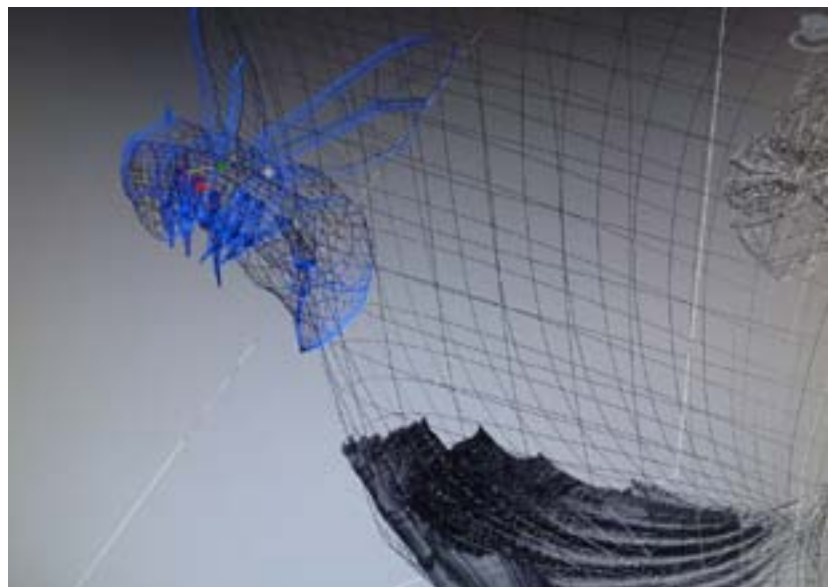
Silver Coffee Pot from *Diverse maniere* (Wilton-Ely 878)

Coffee offered Piranesi the perfect vehicle to address the complicated issue of taste. When coffee drinking spread to Europe in the late 16th century, Pope Clement VIII (1536–1605) was asked to ban it as an infidel threat also associated with sodomy, but on tasting it he declared it was too delicious to be left to the unfaithful. The longest running coffee house in Italy, Caffè Florian opened in Venice in 1720, the city and year of Piranesi's birth. In Rome, Caffè Greco opened in 1760 and lists Piranesi, Goethe, Stendhal, Byron and Keats among its visitors. Caffè Degli Inglesi opened a few years later with wall paintings by Piranesi. Located at the foot of the Spanish Steps, it became the most important meeting place in

Fig 5c. Detail of digital modelling of teapot. 2010.

Fig 6a. **Swan-Neck Chair,** 2010, under construction. The final material will be artificial wood, gesso and gold gilt, 115 x 85 x 73 cm.

Fig 6b. Piranesi, **Chair**.

some subtle patination.

The movement in the body of the pot from a natural shell to stylized ridging is a movement from direct quotation of natural form to a high level of abstraction. The subtle shift to the treatment of the handle almost prefigures art deco design—with small simplifications this handle could belong to Christopher Dresser (1834–1904)—yet it sits comfortably on an object designed in the mid-18th century.

Swan-Neck Chair from *Diverse maniere* (Wilton-Ely 878)

Piranesi's approach, caught between Venetian caprice and Roman imperial splendor, had a profound influence on future generations of artists, architects, designers, decorators and even film-makers. This eccentric chair is representative of his wildly imaginative incorporation of elements and of his ability to move beyond issues of national or cultural identity to merge the wealth of influences that made Rome the extraordinary, fertile place it was. Unlike the other objects here, this chair was completely modeled by hand by Juan Carlos Arias, over the course of months. The final result, cast in a resin used to restore wooden furniture, was gesso coated and water-gilded. The chair, made in Madrid in the 21st cen-

tury, was clearly conceived in Piranesi's workshop in Rome. The twist of the swan necks—eloquent and gentle from one angle, aggressive and attacking from another—seems an apt reflection of Piranesi's own character.

Towards the close of his essay in *Diverse maniere*, Piranesi makes a final plea for a new system of design, unconstrained by doctrine, but sanctioned by

Fig 7a. **Candelabrum**, 2010, resin and marble dust, 220 x 70 x 70 cm.

usage from the past and inspired by nature:

Must the genius of our artists be so basely enslaved to the Grecian manners, as not to dare to take what is beautiful elsewhere, if it be not of Grecian origin? But let us shake off this shameful yoke, and if the Egyptians, and Tuscans present to us, in their monuments, beauty, grace and elegance, let us borrow from their stock, … an artist, who would do himself honour, and acquire a name, must not content himself with copying faithfully the ancients, but studying their works he ought to show himself of an inventive, and, I had almost said, of a creating Genius...[8]

Candelabrum with Lion and Bulls' Heads from *Vasi, candelabri…* (Wilton-Ely 912)

The debate that dominated design and architecture in Rome in the 1760s is surprisingly like the modernist discourse of the 20th century. Piranesi

Fig 7b. Piranesi, **Candelabrum** from Vasi, candelabri… 1778, etching, 72.5 x 48.4 cm.

tackled cries of 'less is more' and calls for a reductive simplicity. He argued for an inspirational response to the accumulation of cultural sources, and for dynamic design that would reflect the needs and capabilities of the time. His view of antiquity as a living and revitalising force is evident in the way he responded to the fragments he excavated and reconstructed. He was happy to develop images, like the *Vedute di Roma,* that stimulated the romantic interest in decay (prefiguring the Romantic cry that there is one thing more beautiful than a beautiful thing, and that is the ruin of a beautiful thing). But his deep study of the remains of antiquity led to his desire to restore, reinterpret and re-present those objects.

It is unknown to what extent this candelabrum was a new design by Piranesi or a copy after the antique. From similar candelabra such as the one in the collection of King Gustav III of Sweden (Wilton-Ely 995), the Newdigate Candelabra in the Ashmolean Museum (Wilton-Ely 910 and 992), or the marble candelabrum from the Jenkins collection, now in the Vatican (Wilton-Ely 935), it is safe to assume that whatever its classical pedigree might be, significant interventions were made to perfect the object for a connoisseur's taste. The two Newdigate candelabra are known to have been heavily 're-worked.'

Piranesi loved to experiment, venturing beyond the bounds of conventional taste, and in his treatment of antique fragments he was unable to control his desire to improve and restore. The fireplace gave him a 'facade' to decorate, but the candelabrum gave him four facets with infinite room for variation. He played with repetitive elements while introducing novel ways to break the symmetry of the form. On this complex 'canvas' he could introduce references to poetry and the arts, while also dealing with the passing of time and the transitory nature of human life. He made a candelabrum for his own funerary monument, com-

posed of antique fragments mixed with modern additions, which is now in the Musée du Louvre (Wilton-Ely 1002).

Vase with Three Griffin Heads from *Vasi, candelabri...* (Wilton-Ely 951)

Although it carries a dedication to collector Richard Dalton (1713?–91) there is no evidence that this vase existed in any form other than Piranesi's print. Dalton's collection was broken up at his death and, although it seems likely that several of his pieces had been acquired from Piranesi, there is no clear reference to this vast piece. We based the size of this re-creation on another large marble vase reproduced in *Vasi, candelabri...* which is now in the courtyard of the church of Santa Cecilia in Trastevere in Rome. (Wilton-Ely 922)

Piranesi's printing business and 'museo' were located in the Palazzo Tomati in Via Sistina, conveniently near the British Quarter of the Piazza di Spagna. Visitors there formed a roll-

call of leading patrons on the Grand Tour: Sir William Hamilton, Sir Roger Newdigate, Charles Townley all came to call. So, in all probability, did Goethe and Goya. From his Palazzo, Piranesi was active in the thriving Roman trade of restoring and selling classical antiquities, and was well recognised for his expertise. In 1757 Piranesi was made an honorary member of the newly formed London Society of Antiquaries, and his own collection of antiquities was substantial. John Wilton-Ely reports "when Gustav III of Sweden made a belated Grand Tour in 1783 he visited Palazzo Tomati and purchased from Francesco, Piranesi's son, a large part of the remaining antiquities, especially those works which were too fanciful or bizarre for earlier clients and these are now in Stockholm."[9]

The protocols of 'restoration' at the time were flexible, as can be seen by Sir William Hamilton's remarks on improving and reconstructing the fragments that became the famous Warwick Vase: "I was obliged to cut a block of marble at Carrara to repair it, which

Fig 8a. **Vase with Three Griffin Heads,** *2010, gypsum, 220 x 150 cm.*

Fig 8b. *Piranesi, Antique marble Vase decorated with griffin heads from* Vasi, candelabri… *1778, etching, 38.8 x 25.5 cm.*

has been hollowed out & the fragments fixed on it, by which means the vase is as firm & entire as the day it was made."[10] From his involvement in the re-fabrication of the Warwick Vase and other antiquities, we can conclude that Piranesi, deeply engaged in learning from and understanding the antique creative mind, viewed originality as a process rather than a state of being.

IN CONCLUSION

In his response to Pierre-Jean Mariette (1697–1774), a print dealer and collector who adhered to Johann Joachim Winckelmann's belief in the superiority of a "pure" Greek style, Piranesi championed artistic freedom: "Let us imagine that the world—sickened though it is by everything that does not change from day to day—were gracefully to accept your monotony; what would architecture then become? A low trade, in which one would do nothing but copy."[11]

Piranesi's ambition was never to copy but rather to exceed the extraordinary artifacts being discovered all around the Mediterranean. His riposte to Mariette at times adopts a proto-Ruskinian tone about the integrity of manual labour, and hints at the intellectual bankruptcy of a privileged class for whom culture is a tasteful endgame of connoisseurship and ownership.

Our age, like Piranesi's, is obsessed with 'originality.' Now, as then, the original is thought to possess an 'aura', a mystical quality that no second-hand version can ever contain. This desire to fix originality is fuelled by archaeology (searching for the source), and by marketing (promoting the unique), and has grown in the past century in response to the proliferation of cheap printed copies and a media-fueled obsession with financial value. At Factum Arte we depend on artisans, both digital and physical, who share a common interest: to make things articulate and to enjoy the possibilities that emerge when the 'social life' of an object is given more weight than conventional definitions of authenticity and originality. We believe the originality of an object belongs in the conversations that happen as it is being made, and the way those conversations condition the character of the finished object. If you can read

Fig 8a. *Vase with Three Griffin Heads,* gypsum, 220 x 150 cm. 2010.

back and grasp these conversations, the object becomes articulate. Today's tools and technologies help us to see more, and to see differently, at every stage of recording, making, studying and understanding. But before an object speaks to us, we need to ask it the right questions and listen to its answers. If we don't, it stays mute.

It has taken three centuries of museum culture to turn rich and varied 'subjects' into discrete 'objects' located in a specific time and attributed to a specific hand. In the 18th century Piranesi resisted this already emerging tendency, and asserted the importance of looking in depth into the complex and revealing biography of things.

How would Piranesi respond to these new objects made from his designs? Would he be effusive, passionate and 'a complete madman in everything'? Would he be shocked that, for a period of time, each of the objects existed only as a virtual form in a computer's memory displayed ephemerally on a screen? That only once this digital data was used to control a laser that gradually moved and hardened a tankfull of resin, would the objects assume anything resembling a physical presence?

Piranesi was capricious and celebrated it. I can see some of his limitations, but I admire the way he fought the revisionist reading of antiquity and the Renaissance projected by aesthetically motivated scholars in the mid-18th century. I celebrate the extraordinary generosity with which Piranesi shared his ideas and passions. Hopefully the objects we have made in Madrid keep his ideas alive and active.

Each object carries the stamp of the Fondazione Giorgio Cini, Factum Arte and a 'Piranesi' stamp. The Coffee Pot (€30,000), Altar, and two Tripods (€50,000 each) have been produced in an edition of 12; all other objects are made to order. Proceeds will be used to finance future exhibitions at Fondazione Giorgio Cini, Venice. The objects can be viewed by appointment at the Fondazione Giorgio Cini, Venice and Factum Arte, Madrid. A travelling exhibition is in the planning stages, through Exhibitions Development Group (EDG).

Notes:

1. Diverse maniere d'adornare i cammini ed ogni altra parte degli edifizi desunte dall'architettura Egizia, Etrusca, e Greca con un Ragionamento Apologetico in defesa dell'Architettura Egizia, e Toscana, opera del Cavaliere Giambattista Piranesi Architetto, *Rome: 1769, and* Vasi, candelabri, cippi, sarcofagi, tripodi, lucerne, ed ornamenti antichi disegnati ed incisi dal Cav. Gio. Batt. Piranesi, *Rome: 1778.*

2. In stereolithographic printing, the digital file divides the shape into very thin slices; a laser then draws the outline of a 'slice' on a thin layer of light-cured liquid polymer; the polymer hardens where it was hit by the laser; then a new thin layer of polymer washes over the surface, the laser outlines the next slice, and so on.

3 Piranesi dedicated Diverse maniere *to Monsignor Rezzonico, who was Grand Prior of the Order of Malta and Maggiordomo to his uncle, Pope Clement XIII. The Rezzonicos were important patrons for Piranesi: rich Venetians who had bought 'patents of nobility' in the seventeenth century, the Rezzonico family gave Piranesi opportunities, financial backing and confidence. Carlo Rezzonico (1693–1769), became Bishop of Padua in 1743, and was elected Pope Clement XIII in 1758. Clement XIII was known for honesty, piety, and modesty (famously adorning the sculptures in the Vatican with mass-produced fig leaves). As an unworldly man from new money, he needed Venetian support that he could trust in the complex political environment of Rome, and he appointed his nephews, Giovambatista and Abbondio Rezzonico to positions of influence. Their natural choice for a designer was the Venetian Piranesi, with his unlimited ambition, imaginative fertility and original ideas about architecture and design. They commissioned him to design domestic interiors and furnishings for Castelgandolfo, the Quirinal (at that time the Papal residence), and the Campidoglio, and to design the reconstruction of the Lateran Basilica. This last commission was later abandoned, and Pope Clement XIII gave Piranesi a knighthood (the Sperone d'Oro, 1767), perhaps to compensate for his disappointment.*

Abbondio Rezzonico (1741–1810) was Senator of Rome, and hired Piranesi to transform the Senatorial Palace on the Capitoline Hill into a magnificent residence. He also kept the gilt-framed drawings of the Lateran project to line the walls of the corridor, stimulating the imagination of many visitors including Goethe.

4. From a letter of the architect Carlo Vanvitelli (1739-1821) cited in B. Sørensen, Two overlooked drawings by Piranesi for S. Giovanni in Laterano in Rome,in: BM. CXLIII, 2001, S. 430–33.

5. From a letter by Barry to Edmund Burke, written 22 May 1768 in Rome, collected in Fryer, Works of Barry, i. 123-34.

6. Writing about the designs of Robert Adam in his Anecdotes on Painting *(1780 edition)*

7. Giovanni Battista Piranesi, Observations on the letter of Monsieur Mariette, Opinions on Architecture, *and* Preface to a New Treatise on the Introduction and Progress of the Fine Arts in Europe in Ancient Times. *Introduction by J. Wilton-Ely. Translation by C. Beamish and D. Britt. Los Angeles: The Getty Research Institute, 2002.*

8. "The Apologetical Essay," Diverse maniere.

9. Email correspondence with the author.

10. A. Morrison, The Hamilton and Nelson Papers, *(1893–94) no. 53, noted by Nancy H. Ramage, "Sir William Hamilton as Collector, Exporter, and Dealer: The Acquisition and Dispersal of His Collections,"* American Journal of Archaeology 94.3 *(July 1990:469–480)*

11. Giovanni Battista Piranesi, Observations on the letter of Monsieur Mariette, Opinions on Architecture, and Preface to a New Treatise on the Introduction and Progress of the Fine Arts in Europe in Ancient Times. *Introduction by J. Wilton-Ely. Translation by C. Beamish and D. Britt. Los Angeles: The Getty Research Institute, 2002.*

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