

EDGAR DEGAS: THE SCULPTURES

WALTER F. MAIBAUM

While most know Edgar Degas as a brilliant painter and innovative draftsman, less known are his sculptures that he created in beeswax often mixed with soft modeling clay.¹ These materials remained malleable, allowing for the flexibility he needed to rework his wax sculptures over long periods of time. Today his original sculptural creations are known as his “waxes.” Degas, who considered his waxes as very personal, intimate objects, took great pleasure in experimenting on them in an attempt to capture the perfect form. No bronzes were cast from the artist's waxes during his lifetime. Every Degas bronze in museums and in every other public and private collection around the world was cast posthumously after he died.

Degas, who was born on July 19, 1834, began sculpting circa 1860.² Degas only allowed one sculpture to be exhibited during his lifetime. It was the original wax creation of his most important sculpture, *La Petite Danseuse de Quatorze Ans* (*The Little Dancer, Age Fourteen*: (henceforth: the “*Little Dancer*”). The wax of the *Little Dancer* was shown in 1881 in the Sixth Impressionist Exhibition in Paris, France.³ It was radically modern for the time and received mixed critical reviews. In *L'Art Moderne*, Joris-Karl Huysmans, wrote: “At once refined and barbarous with her ingenious costume and her colored flesh, which palpitates, furrowed by the work of the muscles, this statuette is the only truly modern attempt I know of in sculpture.”⁴ Others saw it differently. In *L'Exposition des Indépendants*, Paul Mantz stated: “The piece is completed, and let's admit it right away, the result is almost frightening.” He continues: “May it please heaven that my daughter does not become a dancer.”⁵ Elie de Mont was even more cynical. In *La Civilisation*, she wrote: “This opera rat has something about her of the monkey, the shrimp, the runt. Any smaller and one would be tempted to enclose her in a jar of alcohol.”⁶ Discouraged by public reaction and the hostility of some critics, Degas never allowed another sculpture to be exhibited.



fig. 1 Gauthier's photograph of Degas' wax 1917-1918.
Photo courtesy of the Réunion des Musées Nationaux

Degas died on September 27, 1917. Shortly after his death, Degas' dealer, Paul Durand-Ruel (1831-1922), an executor of his estate, and the noted dealer Ambroise Vollard (1865-1939) also a close friend of the artist, found about one hundred fifty of Degas' original sculptures scattered throughout the three floors of his residence and studio at 6, Boulevard de Clichy in Montmartre, the 9th arrondissement (district) in Paris.⁷ Most were waxes, along with some plasters and a few others in clay (presumably terra cotta). Based on various accounts, some had undeveloped or incomplete forms, others had broken parts beyond repair, while many had sagged or collapsed on their armatures.⁸ Durand-Ruel and Vollard determined eighty of them -- seventy-four of the waxes, four clays and three plasters -- were well-formed, complete, or in a good enough state of preservation to be inventoried as part of the artist's estate.⁹ The other seventy were apparently discarded.

The artist's heirs, who were interested in casting bronzes, contacted Adrien-Aurélien Hébrard (1865-1937), the owner of the Paris foundry, A.-A. Hébrard et Cie (the "Hébrard Foundry").¹⁰ From the eighty sculptures that were inventoried, the executors of the artist's estate, along with Degas' heirs and Hébrard, decided to have bronzes made from seventy-one of the waxes and from the three plasters. The remaining six inventoried works were most likely duplicate images or so similar it would have been difficult for most to distinguish one sculpture from another. On May 13, 1918, the contract between Degas' heirs and Hébrard was signed whereby the foundry was to cast twenty-two bronzes from each of those seventy-one waxes and the three plasters.¹¹ Each wax and plaster was assigned an individual inventory number by the foundry. Today each wax, along with each bronze and each plaster is cataloged and commonly referred to by the same respective inventory numbers.¹²

About two years after the artist died, in late 1919 the Hébrard foundry began casting Degas' bronzes.¹³ The first set of bronzes was purchased in 1921 by the American collector, Louisine (Mrs. H.O.) Havemeyer (1855-1929), who once cautioned an observer: "It takes special brain cells to understand Degas."¹⁴ She purchased the bronzes at the urging of her close friend and advisor, the American artist Mary Cassatt (1844-1926) who had written to her: "I have studied Degas' bronzes for months. I believe he [Degas] will live to be greater as a sculptor than as a painter."¹⁵ The Havemeyer set of bronzes was bequeathed [gifted] to the Metropolitan Museum of Art in New York in 1929.¹⁶ Hébrard continued to cast bronzes until 1936 when sales stopped due to the world-wide depression. The Hébrard Foundry went into liquidation in 1937, and Adrien-A. Hebrard died the same year.¹⁷

Twelve years later, in 1949 Nelly Hébrard (1904-1985), the daughter of Adrien-A. Hébrard whose estate she inherited, quietly purchased some casting rights from the living heirs of the artist.¹⁸ In 1955 she made a surprising public announcement. Along with the *Little Dancer* wax that was previously known to have survived, she revealed that sixty-six of Degas' other original waxes had also survived.¹⁹ At the time everyone had

assumed, as would be expected, that in the molding process parts of the waxes would have broken off or that the waxes had been completely destroyed. Among those who held that belief was the leading Degas sculpture scholar of the time, John Rewald (1912-1994), who later wrote that the waxes had survived was "...a startling and exciting revelation."²⁰ Nelly Hébrard sold the waxes and the three plasters through the New York gallery M. Knoedler & Company, Inc. to the American philanthropist, Paul Mellon.²¹ He gifted, or loaned as a promised gift, the three plasters and fifty-one of the waxes, including the *Little Dancer* wax, to the National Gallery of Art in Washington, D.C. Eight other waxes were gifted to the Virginia Museum of Fine Arts in Richmond, Virginia USA, five to the Musée du Louvre in Paris (now in the Musée d'Orsay), three to the Fitzwilliam Museum in Cambridge, England, and one to the Yale University Art Gallery in New Haven, Connecticut USA.²²

Around the same time Nelly Hébrard also publicly revealed that two posthumous plaster sculptures of the *Little Dancer* had been made from Degas' wax in 1921. John Rewald had acquired one of the plasters, most likely in the late 1940s, from Nelly Hébrard. He sold the plaster in 1968 to Paul Mellon. In 1985 Mr. and Mrs. Mellon donated the plaster to the National Gallery of Art in Washington, D.C., USA.²³ The other *Little Dancer* plaster was purchased from Nelly Hébrard in 1956 by M. Knoedler & Company. In 1971 Knoedler donated the plaster to the Joslyn Art Museum in Omaha, Nebraska USA.²⁴ Arthur Beale, Chairman Emeritus of the Department of Conservation and Collections Management at the Museum of Fine Arts, Boston USA determined this was the plaster that served as the master from which the Hébrard *Little Dancer* bronzes were cast.²⁵

About twenty years later, in 1976 there was another milestone in the history of Degas' sculptures. The Reid & Lefevre Gallery in London exhibited a previously undocumented set of bronzes owned by Nelly Hébrard.²⁶ Each bronze in the set was stamped with the word "Modèle" (model). Arthur Beale confirmed the Modèle set was a master set of bronzes from which, except for the *Little Dancers*, all the other bronzes (about 1,400 bronzes) were cast.²⁷ The set was sold through the Reid & Lefevre Gallery to the Norton Simon Art Foundation in 1977.²⁸ Today the Modèle bronzes are in the collection of the Norton Simon Museum of Art in Pasadena, California USA.²⁹



Another unexpected event in Degas' sculptural history occurred in 2001 when a colleague informed the author that a new bronze edition of the *Little Dancer* was being cast in France.³⁰ It didn't seem possible since both known plasters of the sculpture were in museums. Nonetheless, given that major bodies of Degas' sculptural work didn't surface until decades after his death, the thought was perhaps a third unknown plaster of the *Little Dancer* might exist. Travelling to France along with two others did lead to the examination of a third,

fig. 2 Unknown plaster.
Photo by Joseph Coscia, Jr.
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previously unknown sculpture in plaster of the *Little Dancer*.³¹ While the author had little doubt it was created by Degas, some elements on the plaster did not conform to the two known posthumous plasters of the *Little Dancer* made by the Hébrard foundry circa 1921. For example, on this unknown plaster the back of the dancer's hair flowed down her back in a twisted braid, whereas on the two known posthumous plasters made by Hébrard her hair is pulled upward into a chignon. Two other differences were also quickly detectable. First, on the unknown plaster the dancer's legs were more muscular when compared to the legs on the two known posthumous plasters. Second, on the unknown plaster the dancer's hips were parallel to the base, whereas on the two known posthumous plasters her left hip is tilted slightly upward. But despite these and other noticeable differences it seemed apparent that only Degas himself could have created something so masterful. It was also believed that the unknown plaster could not have been a copy or a fake, for had it been, all the compositional forms and elements on the plaster would have closely conformed to those on the two known posthumous plasters. The figure's structure and anatomy on the unknown plaster also appeared to be flawless – not clumsy in any respect.

Shortly thereafter, it was learned that the Valsuani Foundry in Chevreuse, France owned the unknown plaster. Claude Valsuani established the foundry 1908.³² Over the years Valsuani cast bronzes by many major nineteenth and twentieth century artists, ranging from Rodin and Renoir, to Brancusi, Matisse and Picasso. The foundry was purchased in 1980 by Leonardo Benatov.

The author's research on the *Little Dancer* plaster began in 2001. Along with examining a number of Hébrard *Little Dancer* bronzes and digging through archives during the three years that followed, many consultations were conducted with Clare Vincent at the Metropolitan Museum of Art in New York³³ and a number of others, including with



Benatov at Valsuani. During one of those meetings, in December 2004 he opened a locked room at the far end of the foundry. Inside were seventy-four other Degas sculptures in plaster that were unknown to scholars and experts.³⁴

It was completely unexpected and startling to see. Immediately apparent was that everything previously written about the artist's sculptures had to be reconsidered. Also apparent was these objects could provide important new insights into the sculptural history of Degas.

One might ask, how could such a large and important body of work by Degas remain unknown until now? The answer, simply put is,

fig. 3. Plasters found in Valsuani's storage, December 2004. Photograph by Walter Maibaum ©2004 The Degas Sculpture Project Ltd

the plasters arrived at Valsuani in 1955 and remained in storage for decades.³⁵ Why in storage for so long? Because neither Benatov nor the previous owners of Valsuani had any knowledge as to how the plasters were made, why they were made, who made them or when, or if they were genuine.

Furthermore, if they had the knowledge and even if the plasters were authentic, nonetheless no French foundry could cast from them until the French Droit Moral (the artist's copyright) had expired which could have been as late as 1993.³⁶ Then take into account that two other major bodies of Degas' sculpture work were not known until decades after his death: until 1955 no scholar was aware that sixty-eight of Degas' original waxes had survived, and until 1976 no scholar knew of the existence of a master set of bronzes (the Modèles). That revelation took place about 60 years after the artist died. This was a third such event, in which yet another major body of Degas' sculptures, 75 previously unknown plasters came to light many decades after the artist's death.

Who made these plasters and when were they made? Logically and most likely the plasters were made from Degas' waxes by Paul-Albert Bartholomé (1848-1928) the artist's close friend and colleague who was also a sculptor.³⁷ As to when they were made, based on the large preponderance of physical evidence at least ten plasters were made during Degas' lifetime. All the other plasters, except for a few, were made before the Hébrard Foundry began casting bronzes in late 1919, so that those plasters were made either during Degas' lifetime or shortly after his death.³⁸ There are two reasons why Bartholomé would have made plasters from the artist's waxes shortly after Degas died, both based on customary foundry practices. First, the plasters would provide a record of what the waxes looked like upon the artist's death (and before the waxes might deteriorate). Second, since the heirs were interested in casting bronzes, he made the plasters believing they would be used as masters to cast the editions. Months later the foundry decided to use bronze masters (the Modèles) for casting instead of plasters. The plasters could then have been placed in Hébrard's storage or Bartholomé kept them for his own collection. It is also possible that upon first seeing the waxes and realizing their fragility Albino Palazzolo (1883-1973), who was the master caster of the Hébrard foundry, could have decided to make plasters for the same reasons as Bartholomé would have done (as above). It was later decided that bronze masters would be used to cast the editions and the plasters could have been put aside in storage.

The art historian, Dr. Gregory Hedberg, former Director of European Art for New York's Hirschl & Adler Galleries, found strong evidence leading to his conclusion that the previously unknown *Little Dancer* plaster was made between 1887 and 1903. Hedberg also proposed that during Degas' lifetime Bartholomé could have made the great majority of the plasters from the artist's waxes, and except for a few, perhaps all of them might have been made during Degas' lifetime for his (Bartholomé's) personal collection. If so, Hedberg proposed, the plasters would have been made over a period of years, from

1887 to 1912. Under this proposal the plasters most likely would have remained with the Bartholomé family until 1955 when they were brought to Valsuani.

While we may never know exactly when each plaster was made, or if they were made by Bartholomé, Palazzolo or perhaps by someone else, nonetheless, experts and scholars all agree that the critical question to determine authenticity was, and is; "Where the plasters made from Degas waxes?" If the answer is yes the plasters are authentic, no matter who made them or when. To provide evidence that the plasters were made from the artist's waxes a great number of internal (point-to-point) measurements were taken on the Modèle bronzes.³⁹ Those measurements were then compared to the same points on the plasters.⁴⁰ Why? Because in the casting process bronze shrinks by approximately 2% from its molten to its solid state.⁴¹ Plaster has no such shrinkage.⁴² Therefore, if one were to cast a sculpture in plaster from an original Degas wax, and then cast a sculpture in bronze from the same original wax, the plaster would be approximately 2% larger than the bronze (conversely the bronze would be about 2% smaller than the plaster).



fig. 4

Modèle Bronze Number 57
Photo Courtesy of The Norton Simon Museum of Art

Recently discovered Plaster Number 57
Photo by Joseph Coscia, Jr.

Notice in *fig. 4* the measurement from the tip of the figure's right hand to the tip of her left is greater on the plaster than it is on the Modèle bronze. This proves two things. First, the plaster could not have been made from the Modèle. Had it been the dimensions on the plaster would have been smaller matching those on the Modèle. Second, for the reasons noted above, the larger measurement on the plaster also indicates it was made

from Degas' wax. Approximately 500 such internal point-to-point measurements were made for comparison purposes between the about sixty plasters and the corresponding Modèle bronzes cast by Hébrard. The measurement comparisons provide strong evidence to conclude that except for only a few, all the plasters were made directly from Degas' waxes.

How then can one establish these plasters were made from Degas' waxes before Hébrard began casting bronzes from the waxes in late 1919? Fortunately, shortly after the artist died an executor of his estate, Paul Durand-Ruel, had the foresight to commission Gauthier to photograph Degas' original waxes in the artist's studio as they were upon his death. Gauthier photographed fifty-three of the waxes between December 29, 1917 and March 28, 1918.⁴³ Many months after the photographs were taken, in mid to late 1919, the waxes were transported to the Hébrard Foundry where Palazzolo made modifications to them. Along with reattaching parts that had broken off the waxes, he also changed certain forms and features on the waxes and removed some of the internal armatures for casting purposes, after which time the Hébrard foundry began casting bronzes.⁴⁴ To clarify, a Gauthier photograph illustrates how a wax appeared at the time of Degas' death. The corresponding Modèle bronze of the same figure, cast months later, records how the same figure appeared after Palazzolo made modifications to the same wax (before and after).



fig. 5

Wax Number 3 photographed by Gauthier 1917-1918
Photo Courtesy Réunion des Musées Nationaux

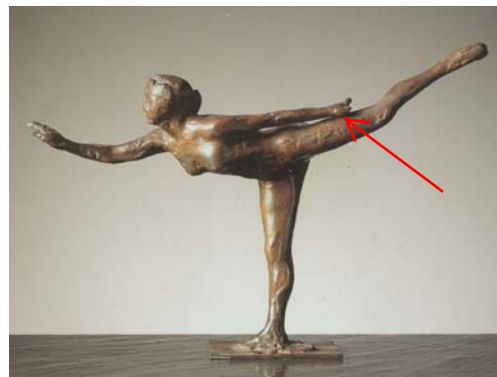


fig. 6

Modele bronze cast by Hébrard
Photo Courtesy of the Norton Simon Museum of Art

To cite one example, see *fig.5*; Gauthier's 1917-1918 photograph of Degas' wax of sculpture number 3. On the right (*fig. 6*) is a photograph of a bronze cast by Hébrard. Notice on the Gauthier photograph of the wax the figure's left arm is extended outward (away) from the body. Yet the same arm on the bronze is attached to the figure's buttocks and thigh. This clearly illustrates that the figure's left arm was moved downward before Hébrard cast the Modèle, from which the serialized bronzes were cast. Extremely likely Hébrard or Palazzolo moved the arm on the wax downward for ease of casting (it is easier to cast a bronze with the arm attached rather than extended outward).

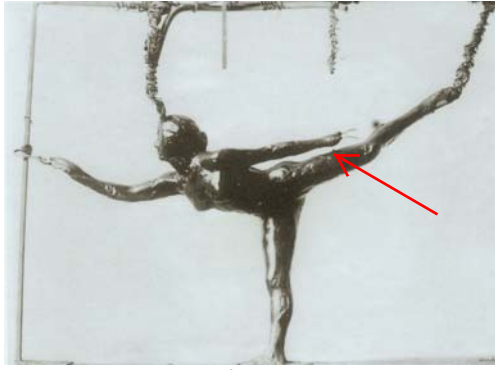


fig. 7

Wax Number 3 photographed by Gauthier 1917-1918
Photo Courtesy Réunion des Musées Nationaux



fig. 8

Recently discovered Plaster
Photo by Carol Conn

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fig. 9

Hébrard Bronze

Photo Courtesy Norton Simon Museum of Art

One can also determine something about the dating of a plaster by making the same type of side-by-side comparison. Wax no. 3 is shown in *fig. 7* as photographed by Gauthier in 1917-1918. In *fig. 8* is a photograph of the corresponding plaster. Notice on both the wax (*fig. 7*) and on the plaster (*fig. 8*) the figure's left arm is in the same extended outward position, whereas on the bronze in *fig. 9* it is not. This clearly illustrates the plaster must have been made before the left arm on Degas' wax was moved downward for casting bronzes beginning in late 1919. This also rightly leads to following conclusion: the plaster must have been made from Degas' wax either during his lifetime or shortly after his death, and certainly no later than late 1919. Taking into account that many other such comparisons have been made⁴⁵ along with the measurement compilations noted above, and considering the other evidence provided in the large corpus of research, all points to the following logical conclusions: (a) except for only a few, all the plasters were made from Degas' waxes, (b) at least ten plasters were made from the waxes during his lifetime,⁴⁶ and (c) except for only a few, the plasters that were not made during Degas' lifetime were made from his waxes shortly after he died on September, 27 1917, and before Hébrard began casting any bronzes in late 1919.

People often ask, "Since all Degas' bronzes were cast posthumously, exactly what differences are there between those cast by the Valsuani Foundry from the plasters, compared to the Hébrard bronzes that were cast from the Modèle set of bronzes?" To understand the differences one must first take into account the components and physical properties of bronze materials and those of plaster.⁴⁷ As detailed above in the comparison with a bronze to a plaster, bronze shrinks in the casting process by approximately two percent.⁴⁸ In addition, with bronze, distortions sometimes occur and a generation of details is lost in the casting process. Plaster has no such shrinkage⁴⁹ or distortion and details are not lost. Therefore, if one were to cast a bronze from a wax and then cast a plaster from the same wax, the plaster would be slightly larger, the forms more accurate and the surface details sharper. This is why since the 16th century foundries around the world have used plasters as the masters from which to cast bronzes.

Nonetheless, with the sole exception of the *Little Dancer* bronzes that were cast from a plaster, the Hébrard Foundry made a master set of bronzes (the Modèles) from which to cast all the other bronzes (about 1,400 bronzes). The ramifications of this unusual casting method are significant. Specifically, the bronze master Modèles made by Hébrard shrunk by approximately two percent in the casting process, making them two percent smaller than Degas' original waxes. In addition, the surface details on the Modèles were not as sharp as they were on the original waxes or what they would have been on plasters. The edition bronzes then made by Hébrard from the Modèles also shrunk by another two percent in the casting process. Thus they are four percent smaller than Degas' original waxes and a generation of surface details was lost.

Such bronzes, cast from other bronzes are second generation, known as surmoulages (casts from casts). Surmoulages are typically not considered as original bronzes, and normally they are not accepted by the art world. The Degas' bronzes cast by Hébrard are among the few exceptions because other than the *Little Dancers*, no first generation Degas bronzes were available to collectors and museums. Therefore if one wanted a Degas' bronze there was no choice other than to accept a surmoulage. Describing such a bronze Arthur Beale, who is an expert on the subject, observed; "It seems that it was what is called a 'surmoulage' or 'after cast,' a second generation bronze not only smaller but exhibiting a diminution of surface detail as a result of the foundry process."⁵⁰ Beale also reported; "Quite simply put, if one looks for a stable sculptural medium that brings us through time close to the hand of Degas, plaster meets the criterion."⁵¹

An example of the differences between a bronze cast from another bronze when compared to one cast from a plaster can be observed in *fig. 10*. On the left is a surmoulage bronze, cast by Hébrard from another bronze (the Modèle bronze). When compared side-by-side with the Valsuani bronze cast from the plaster, it becomes very apparent that the surface details on the Valsuani bronze are sharper and superior.



fig. 10

Hébrard Bronze Letter "HER D" cast from the Modèle Bronze
Height (without bronze base): 20.5 cm
Collection New Orleans Museum of Art

Valsuani Bronze Letter "A" Cast from the Plaster
Height (without bronze base): 21.5 cm
Private Collection, New York

On a related matter, while searching through the Valsuani archives in 2003 for information about the *Little Dancer* plaster, the author found that Nelly Hébrard resumed the casting of the bronze editions at the Valsuani foundry in 1955 – the same year the plasters arrived there. Although the plasters were at Valsuani in 1955 she continued to use the bronze Modèles as masters for casting. Why? Consistency is the answer. Had she chosen to cast from the plasters at Valsuani instead of from the Modèles, the bronzes cast from the plasters would have appeared to be sharper and slightly larger than the ones cast earlier from the Modèles at her family's foundry (as in *fig. 10*). Thus collectors and others might have raised questions. Nelly Hébrard also continued to use the old Hébrard stamp on the bronzes cast at Valsuani. At a minimum many dozens, perhaps hundreds of surmoulage bronzes were cast at the Valsuani Foundry from 1955 to 1964, all of which have the Hébrard foundry stamp. This information remained unknown to scholars and experts until 2009 when the author first revealed these details in the exhibition catalog, "Degas: The Sculptor," published by the Herakleidon Museum in Athens, Greece.

These revelations also relate to the following. Although the original 1918 contact between the Degas heirs and the Hébrard foundry limited the bronze casting of each sculpture to no more than twenty-two, the foundry cast more *Little Dancer* bronzes and likely more of some other sculptures. Specifically in 2009 Sara Campbell, then Senior Curator at the Norton Simon Museum of Art in Pasadena, California, documented the locations of twenty-nine Hébrard *Little Dancer* bronzes. Her *Inventary of Serialized Bronze Casts* also indicates eight more could have been cast.⁵² Another scholar, Joseph Czestochowski, documented one additional bronze, so that Hébrard might have cast a total thirty-eight *Little Dancer* bronzes.⁵³

In 2007 the discovery of the plasters along with the research and documentation was brought to the attention of the Succession Degas, the legal heirs of Edgar Degas. They agreed with the research and findings and thereby authorized the casting of bronze editions from the plasters. The bronzes in this exhibition, *Edgar Degas: The Bronzes*, are those that were cast by Valsuani from the plasters. The foundry utilized the traditional lost wax method of casting to ensure that each bronze was faithful in detail to the Degas' plaster from which it was cast. Each bronze has a stamp of the Valsuani foundry along with all the other appropriate stamps.⁵⁴ Both the Succession Degas and the Comité Degas have authenticated the bronzes, and all of them were cast in strict accordance with French Law.

Walter F. Maibaum

ABOUT THE AUTHOR

Beginning his art world career in 1968, today Walter Maibaum is recognized as a leading authority on European art from Impressionism to the modernist movements of the 20th century, with a particular focus on sculpture. Along with Degas, his expertise includes

works by Brancusi, Giacometti, Matisse and Picasso. His forthcoming book, *DEGAS: Sculptures Uncovered--History Revealed*, will document the plasters and catalog the Degas bronzes cast by the Valsuani Foundry. In 2010 Mr. Maibaum was awarded the Gusi International Peace Prize for the visual arts. The prize was awarded for the discovery of the 75 unknown Degas plasters and for the research and scholarship that followed.

NOTES

¹ Plasteline is a non drying oil based modeling clay invented in 1897 by Willaim Harbutt in Bath, England. Its formula consists of calcium salts, petroleum jelly and aliphatic acids. It is commonly known by its trade name, Plasticine.

² Daphne Barbour and Shelly Sturman, "Degas the Sculptor: Innovator and Non-Traditional," *Degas Sculptures*, Joseph S. Czestochowski and Anne Pingeot, International Arts and Torch Press, Memphis, Tennessee USA, 2002, p. 76. Barbour, who is Object Conservator at the National Gallery of Art in Washington, D.C., and Sturman, head of Objects Conservation at the National Gallery, state: "*Etude de Cheval (Study of a Mustang)* (1859-60) is Degas' earliest extant sculpture."

³ Richard Kendall, "The World Of The Little Dancer," *Degas And The Little Dancer*, Yale University Press, New Haven, Connecticut USA and London, England in association with Joslyn Art Museum, Omaha, Nebraska USA, 1998, p. 43. Degas had intended to exhibit the *Little Dancer* wax a year earlier in the 1880 Fifth Impressionist Exhibition in Paris. For presentation and security reasons he ordered a glass vitrine in which to display the sculpture. Degas then changed his mind and decided not to exhibit the work in 1880. However, to everyone's surprise and curiosity, the artist exhibited the empty vitrine on a pedestal. Kendall writes, "...critics had fun at his expense by admiring the 'luxurious simplicity' of the empty vitrine."

⁴ Joris-Karl Huysmans, "L'Exposition des Indépendants en 1881," *L'art moderne*, Paris, 1883, p. 226-227

⁵ Paul Mantz, "L'Exposition des Indépendants," *Le Courrier du Soir*, April 23, 1881, p. 3.

⁶ Elie de Mont, "L'Exposition des Indépendants," *La Civilisation*, April 21, 1881.

⁷ Joseph S. Czestochowski, "Degas' Sculptures Re-examined: The Marketing of a Private Pursuit," *Degas Sculptures*, Joseph S. Czestochowski and Anne Pingeot, International Arts and Torch Press, Memphis, Tennessee USA, 2002, note 2, p. 12

⁸ Armatures for sculptures can be likened to a human skeleton. They are often made with a relatively thick wire that can be bent for flexibility. Once an armature's shape has been finalized, the sculptor can then apply many layers of wax or clay over the armature to develop the desired sculptural form.

⁹ Anne Pingeot, "Inventaire de la Succession," *Degas Sculptures*, Anne Pingeot and Frank Horvat, Imprimerie Nationale Éditions, Réunion des Musées Nationaux, Paris, France, 1991, pp 192-193

¹⁰ A.-A, Hébrard et Cie (the Hébrard foundry) was established by Adrien-Aaurélin Hébrard in 1902 on rue Victor Duruy in Paris. Shortly thereafter, by 1904 the foundry moved to its final location; 73 Avenue de Versailles. The Hébrard foundry was liquidated in 1937.

¹¹ see Czestochowski, note 7, p. 14

¹² The waxes are cataloged as numbers from 1 to 27, 29 to 55, 57 to 61, 63 to 68 and number 74. Wax numbers 69, 70, 71 and 72 are missing, presumably destroyed in the molding process. Following is technical information about three of the previously known lifetime plasters, numbers 28, 56 and 62.

Shelly G. Sturman and Daphne S. Barbour, "Degas' Bronzes Analyzed," *Edgar Degas Sculpture*, Suzanne Glover Lindsay, Daphne S. Barbour, and Shelly G. Sturman, National Gallery of Art, Washington, D.C., USA, 2010.

Sculpture number 28: "plaster of Paris, pigments, on wooden base..." "The sculpture is of plaster, hollow cast, with the exception of the right arm, hand, and sponge, which are solid cast." Cat. no. 45, p. 266.

Sculpture number 56: "pigmented beeswax, plaster core..." (a core plaster over which Degas applied beeswax along with other materials). "Radiography reveals that the figure is made with a homogeneous modeling material, identified using G C as beeswax, over a plaster core, and supported on plaster and wooden bases." Cat. no. 17, p. 144.

Sculpture number 62: "plaster on wooden base." Continuing, "...composed of a mixture of plaster of Paris and lime plaster with some added quartz." Cat. no. 63, p. 350

¹³ John Rewald, "The Casting," *Degas Works in Sculpture: A Complete Catalog*, Kegan Paul, Trench, Trubner & Co.. Ltd., London, England, 1944, p.14. Rewald reported that the castings began: "...at the close of the year 1919," indicating the first bronzes were cast at the Hébrard foundry in November/December 1919.

¹⁴ Gary Tinterow, "The Havemeyer Pictures," *Splendid Legacy: The Havemeyer Collection*, Metropolitan Museum of Art, New York, New York USA, 1993 p. 40

¹⁵ John Rewald, "Degas's Bronzes—An Afterword," *The Complete Sculptures of Degas*, Lefevre Gallery, London, England, 1976, p. 3

¹⁶ Ibid. Rewald reports, "...the Louvre acquired Set P in 1930, at the very time that Mrs. Havemeyer bequeathed her set [with the exception of two pieces] to the Metropolitan Museum." Clare Vincent, who was Associate Curator of European Sculpture and Decorative Arts for the Metropolitan Museum of Art, New York, New York USA confirmed in a September 18, 2006 interview with the author that the Set A bronzes were bequeathed to the Metropolitan Museum upon the 1929 death of Mrs. H.O. Havemeyer.

¹⁷ See Czestochowski note 7, p. 16

¹⁸ Ibid. Czestochowski refers to "...Nelly Hébrard's purchase of production rights from the Degas heirs in 1949." Apparently Mme. Hébrard purchased whatever casting rights might have remained with the Degas heirs in 1949, so that she would have complete casting rights for the bronzes.

¹⁹ Wax numbers 69, 70, 71 and 72 did not survive. Presumably they were destroyed in the molding process.

²⁰ See Rewald, note 15, p. 7.

²¹ Anne Pingeot, "Degas and his Castings," Joseph S. Czestochowski and Anne Pingeot, *Degas Sculptures*, International Arts and Torch Press, Memphis, Tennessee USA, p. 36.

²² Mr. and Mrs. Mellon gifted or loaned waxes and plasters to the following institutions: The Fitzwilliam Museum in Cambridge, England holds wax numbers 12, 14 and 31. The Musée d'Orsay, Paris, France,

holds wax numbers 6, 20, 38, 60 and 67. The National Gallery of Art in Washington, D.C., USA, holds wax numbers 1, 2, 4, 5, 7, 8, 9,10, 13, 15, 16, 17, 18, 19, 22, 23, 24, 25, 26, 27, 29, 32, 33, 34, 35, 36, 37, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 58, 61, 63, 64, 66, 68, 73 and 74, along with plasters of numbers 28, 62 and 73. The Virginia Museum of Fine Arts in Richmond, Virginia, USA holds wax numbers 3, 11, 21, 30, 41, 51, 59 and 65. The Yale University Art Gallery, New Haven, Connecticut USA holds wax number 57.

M. Knoedler & Co. gifted a plaster of number 73 to the Joslyn Art Museum, Omaha, Nebraska USA

Mr. Grégoire Triet gifted a plaster cast of number 74 to the Musée d'Orsay, Paris, France.

²³ Arthur Beale, "Little Dancer Aged Fourteen: The Search for the Lost Modèle", *Degas and the Little Dancer*, Richard Kendall, Yale University Press in association with the Joslyn Art Museum, Omaha, Nebraska USA 1998, p. 99.

²⁴ Ibid

²⁵ Ibid

²⁶ The Modèle bronzes were exhibited at the Lefevre Gallery in London, England from November 18 to December 21, 1976.

²⁷ See Beale, note 23, p. 99. See also note 7 in which, on p. 16 Czestochowski reports, "about 1,400 casts" (including *Little Dancer* bronzes).

²⁸ Sara Campbell. "The Evolution of Norton Simon's Degas Collection," *Degas in the Norton Simon Museum: Nineteenth Century Art, Volume II*, Norton Simon Museum of Art, Pasadena, California USA, p. 18-19.

²⁹ The Modèle set of bronzes is fully documented in the publication in note 28.

³⁰ In early 2001 Lawrence Saphire contacted the author about the new bronze edition. Among his many publications are *Fernand Leger: The Complete Graphic Work*, Blue Moon Press, New York, New York USA, 1978, and *André Masson: The Complete Graphic Work, Volume One: Surrealism, 1924-49*, Blue Moon Press, New York, 1990. Mr. Saphire also contributed to the catalog raisonné of Masson's paintings and has authored catalog essays for museums, including for the Centre Georges Pompidou in Paris, France and the Salvador Dali Museum in St. Petersburg, Florida USA.

³¹ The *Little Dancer* plaster was examined on May 2, 2001 at Galerie Carpentier, 10, Boulevard Raspail in Paris, France by Carol Conn, Lawrence Saphire and the author who, at the time was not aware that the plaster had been brought to Galerie Carpentier by the Valsuani foundry for our inspection.

³² *Dictionnaire des Fondateurs de Bronze d'Art: France 1890-1950*, Elisabeth Lebon, Marjon Éditions, Perth, Australia, 2003, p. 259. The foundry was originally established by Claude Valsuani in 1908 at 74, rue des Plantes in the 14th arrondissement (district) of Paris, France. Benatov's 1980 purchase of Valsuani included a number of plasters by, among other artists, Bugatti, Degas, Pompon, Renoir and Rodin.

³³ Clare Vincent was in charge of the Degas bronzes in the museum's collection on a daily basis for decades. She had a deep knowledge and understanding of the subject.

³⁴ The seventy-four plasters were revealed to Carol and the author on December 22, 2004. Upon seeing the plasters the author's immediate thought was that Hébrard and Palazzo made them, and as would be

customary they were used as masters to cast the bronze editions (rather than the Modèles). That thought changed soon thereafter when, upon further examination it became apparent that the details on the plasters did not match the details on the respective bronzes cast by Hébrard. The group of seventy-four consisted of one of each of the following individual plasters: numbers 1 and 2, 4 through 72, and number 74. There were two plasters of sculpture number 3, each different (3a and 3b). Therefore, with the *Little Dancer* plaster (number 73) that had been previously recorded in 2001, a total of seventy-five unknown Degas plasters were located at Valsuani.

³⁵ Mr. Benatov provided seventy-five Attestations, each dated 21 Mars 2006 (March 21, 2006), and each testifying to the provenance of the plasters: they were brought to the Valsuani Foundry in 1955. There is one Attestation for each plaster, including one for each of the two plaster versions of Hébrard number 3.

³⁶ In France the Droit Moral (the artist's copyright) expires 70 years after the artist's death. However, under French law the Droit Moral is extended during years of war, such as the five-year period during World War II. Thus five years could have been added. Another year could also have been added since Degas died in 1917 when the First World War was still underway. If so Degas' Droit Moral would have been in effect for 76 years, so that it would have expired in 1993. It is not possible to determine the exact date of its expiration because Degas' Droit Moral was never challenged in the French courts.

³⁷ Paul-Albert Bartholomé was born on August 29, 1848 in Thiever-Grigon, Yvelines, France. Well known as a painter, he began sculpting circa 1885 at the urging of Degas. Thereafter he devoted his career to sculpture, many of which he created for monuments and building facades. Bartholomé died in Paris on October 30, 1928.

³⁸ Dr. Gregory Hedberg conducted extensive independent research that along with the author's provided strong evidence leading to these conclusions.

³⁹ Modèle measurements were taken on October 3, 2007 at the Norton Simon Museum of Art, Pasadena, California USA by Sara Campbell, who at the time was Senior Curator, and Hedberg, who at the time was Director of European Art, Hirschl & Adler Galleries, New York, New York USA.

⁴⁰ Plaster measurements were taken on October 16, 2007 in New York City at Cirker's Security Warehouse by the independent sculpture conservator, Steven Tatti, assisted by Hedberg and the author. Earlier in his career Tatti was Senior Conservator at the Hirschhorn Museum of Art and the Smithsonian Institution, Washington, D.C., USA.

⁴¹ See Beale, note 23, p. 98.

⁴² American Petrographic Services Inc., St. Paul, Minnesota USA analyzed the component materials in the plaster of sculpture number 28. On page 2 of its report number 10-06898.1 issued on May 5, 2011, the laboratory reported: "None of the minerals observed in the Degas sample were susceptible to expansion," and "No evidence of expansion was observed."

⁴³ Anne Pingeot, "The Casting of Degas' Sculptures: Completing the Story," *Apollo Magazine*, August 1995, London, England, p. 62.

⁴⁴ See Czestochowki note 7, p. 13.

⁴⁵ Hedberg's forthcoming book on the subject will document many such comparisons. The author documented some in the paper, "Posthumous Bronzes And The Plasters From Which They Were Cast: A

Case Study On determining Authenticity Based On Physical Evidence." The author's paper was prepared for the State Hermitage Museum's Colloquium, *Posthumous Bronzes in Law and Art History*, held in St. Petersburg, Russia on May 26 and 27, 2012.

⁴⁶ Ibid. Hedberg's book will also provide evidence to conclude; (i) which plasters were made during Degas' lifetime, and (ii) the plasters that were made either during his lifetime or shortly after he died. The author's forthcoming book will provide similar evidence and conclusions.

⁴⁷ Bronze is an alloy that often, for casting purposes consists of about 90% copper, about 8% tin and about 2% lead. Bronze becomes molten at 1742 degrees Fahrenheit (950 centigrade). As it cools, depending upon the allow mix, bronze shrinks from 1.750% to 2.2%. Bronze has been known to exist since about 3300 BC. Plaster ("Plaster of Paris") is a quick setting, fine white powder gypsum type of plaster. When mixed with water it hardens evenly, does not shrink, expand or crack (Plaster of Paris remains stable when cast in a mold).

⁴⁸ See Beale, note 23, p. 99

⁴⁹ See American Petrographic Services, note 42, p. 2

⁵⁰ See note 23, p. 99.

⁵¹ Ibid, p. 101.

⁵² See note 28; *Degas in the Norton Simon Museum*. In the "Inventory of Serialized Bronze Casts" on pp. 555 and 556 Sara Campbell reported the locations of the following *Little Dancer* bronzes cast by Hébrard: one bronze stamped "Modèle; fourteen bronzes stamped with the following letters, A, B, C, D, E, F, G, H, H (two bronzes each lettered H), I, J, M, P and S; two bronzes stamped HER; one bronze stamped HER D" and eleven bronzes that are "Unlettered Casts." This accounts for twenty-nine *Little Dancer* bronzes cast by Hébrard. Customarily foundries cast sequentially, so that in this case Hébrard would have likely stamped the edition bronzes in proper order, as follows: the first edition bronze that was cast would be stamped with the letter A, the second with the letter B, the third letter C and so on. There are eight letters (eight bronzes) missing in the sequence of the Hébrard castings: letters K, L, N, O, Q, R, S, and T. Assuming they were cast and their present whereabouts are simply unknown, Hébrard could have cast thirty-seven *Little Dancer* bronzes.

⁵³ Czestochowski/Pingeot note 7. On p. 267 Czestochowski records a *Little Dancer* bronze stamped "AP" (for Albino Palazzolo) whose whereabouts is also unknown. Therefore Hébrard and Palazzolo might have cast thirty-eight *Little Dancer* bronzes.

⁵⁴ Except for the *Little Dancers*, the Succession Degas authorized that Valsuani could cast 29 bronzes from each of the other 73 plasters. To-date, twenty-three of each bronze have been cast. Each bronze in each of these editions is stamped: (i) cere perdue (lost wax); (ii) with the cache (seal) of the Valsuani foundry; (iii) with the year "1998," the year during which a few bronzes were cast from three or four of the plasters as proofs, which then under French law 1998 became the official year of casting, (iv) with the word "reproduction" as required by a 1986 French decree for all bronze editions cast in France that exceed 12; (v) with a signature stamp "Degas;" (vi) with it's respective sculpture inventory number, from number 1 to number 74; and (vii) with its individual cast designation; letter "A" being the first bronze cast of a particular sculpture, letter B being the second bronze cast, letter C being the third and so on for the first 20 bronzes in each edition (letters A through T). The final nine bronzes in each edition of 29 are stamped with Roman numbers, from number I/IX to IX/IX.

A total of forty-six bronzes were cast by the Valsuani Foundry from the previously unknown *Little Dancer* plaster. All of them are stamped: (i) *cere perdue* (lost wax); (ii) with the *cache* (seal) of the Valsuani foundry; (iii) with the word "reproduction" as required by a 1986 French decree for all bronze editions cast in France that exceed 12; and (iv) with its sculpture inventory number, "73." Twelve *Little Dancer* bronzes are also stamped with the year "1997" along with one of the following cast designations: EFA, EFB, EFC, EFD, EFE, EFF, HC 1/6, HC 2/6, HC 3/6, HC 4/6, HC 5/6, and HC 6/6. Thirty-four *Little Dancer* bronzes are stamped with the year "1998" and with one of the following cast designations: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, HCF, HC 1/4, HC 2/4, HC 3/4, HC 4/4, EC, EC, EC, O/T, OO/T, EM I, EM II, EM III, and EM IV. A signature "Degas" is incised on the wood base upon which each *Little Dancer* bronze is mounted.