Those mathematical forms worked out by mathematicians into concrete form to prove or visualize their algebraic equations.... Some of them had a suggestiveness that is conveyed by any portrayal of human anatomy.

Man Ray incorporated these facilitators of mathematical knowledge and proceeded to turn these stable educational forms on their heads. By associating the shapes he saw in these mathematical models with human anatomy, the artist reconceptualized these learning aids in unexpected ways, thereby subverting historic academic resources. This essay draws an analogy between the inspiration that Man Ray found both in mathematical models and in plaster casts of classical masterpieces, indicating an anti-positivist, destabilizing approach. The images suggest multiple readings to the viewer and blur the boundaries between the female nude and its artificial surrogates-the fragmentary plaster casts of the Three Graces and Venus's head and torso. Man Ray's disorienting exchange between human and object is also traced through his inventive casting of the photographic series featuring his celebrated painting A l'Heure de l'observatoire—les amoureux (Observatory Time—The Lovers) in settings charged with eroticism.

FORMULAS OF BEAUTY: **"MATHEMATICAL EQUATIONS FROM AN EROTIC STANDPOINT"**

Man Ray interpreted the mathematical models he photographed at the Institut Poincaré in 1934-35 as parts of the human body, emphasizing their sensuality and eroticism through artful lighting and composition.² By removing them from their academic context he highlighted the suggestive aspects of these three-dimensional embodiments of abstract algebraic formulae. The artist described the mathematical models as "objects in wood, metal, plaster and wire made to illustrate algebraic equations, which lay in dusty cases at the Poincaré Institute. The formulas accompanying them meant nothing to me, but the forms themselves were as varied and authentic as any in nature.... All abstract art appeared to me as fragments:

ACT IV

{ Humanizing the Object : Man Ray's Subversion of Classical and Mathematical Models }

Adina Kamien-Kazhdan

[157]

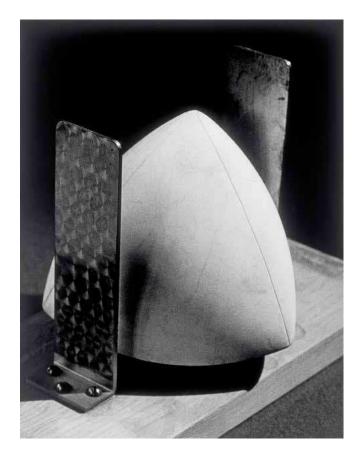
MAN RAY, 1944

The mathematical models at the Institut Henri Poincaré suggested to Man Ray the curves, parabolas, and hyperbolas of the male and female body. In his photographs of these models, the artist highlighted their corporeal nature and accentuated anatomical and erotic associations. Their evocation of human anatomy was further developed in his series of Shakespearean Equations, as epitomized in *Hamlet* [SE-18], in which he exploited the conical aspects of the corresponding mathematical model to evoke a disembodied female breast. Man Ray explained that "the white triangular bulging shape that you see in *Hamlet* reminded me of a white skull, a geometric skull that also looked like Ophelia's breast. So I added a small pink dot at one of the three corners—a little erotical touch, if you will!"¹

1 Schwarz, Rigour of Imagination, 79.

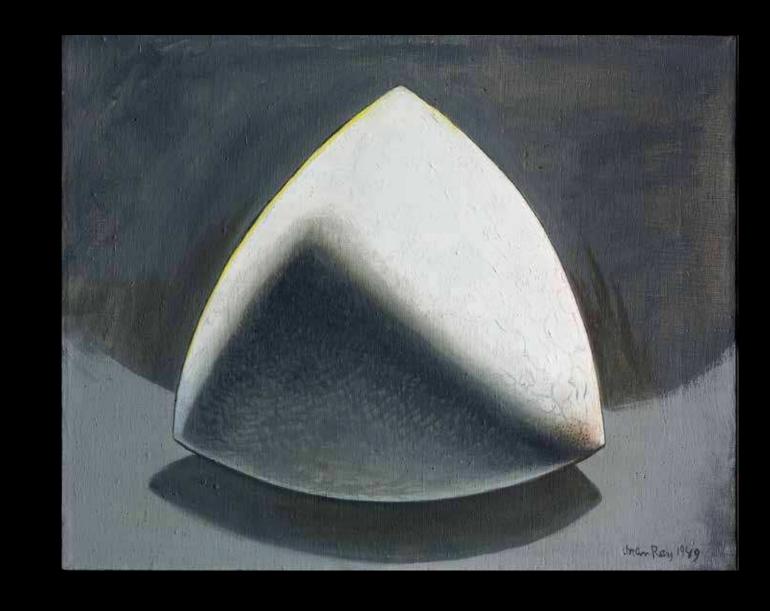
2 Michael Taylor suggests that Man Ray's association between the body and the abstract mathematical models may have been inspired by the contemporaneous 1934 publication of Duchamp's Green *Box*, which contained various mathematical notations, formulas, and hypotheses related to the Large Glass. Michael R. Taylor, "Eros Triumphant," in Duchamp, Man Ray, Picabia, ed. Jennifer Mundy (London, 2008), 166–67.





mathematical object $\{mo-18\}$ 1934–35. Gelatin silver print





Hamlet

SHAKESPEAREAN EQUATION $\left\{ \, \text{SE} - 18 \, \right\} \,$ 1949. Oil on canvas

enlargements of details in nature and art, whereas these objects were complete microcosms."3

Juxtaposing different models, he cre-

ated scenes of imagined interaction between the sexes [figs. 3-6, pp. 21-22]. In his twelve photographs in the 1936 special issue of Cahiers *d'Art*, Man Ray emphasized the mathematical models' eccentric, irrational appearance. By dramatically lighting the isolated models against a dark backdrop, using close-up and raised or lowered viewpoints, and tightly cropping his enlargement prints, he endowed the objects with mystery and monumentality. Bestowing this heightened sense of significance and centrality upon these academic tools, Man Ray staged them as human subjects of a photographic drama. The artist's anthropomorphizing

approach was further developed in the Shakespearean Equations paintings that he based on his earlier photographs. In 1948, Man Ray wrote to Roland Penrose, "I've been working all year since my trip to Paris and produced a whole new series of paintings based on mathematical equations from an erotic standpoint—very discreet!"⁴ He referred to these paintings as "human equations,"⁵ bringing together man and mathematics. In the open letter to André Breton included in his text published to accompany his 1948 exhibition at the Copley Galleries, he explained, "In returning to the mathematical objects as a source of material for my 'Shakespearian Equations,' I proposed to myself not only to take liberties with the legends, but with the forms themselves, their compositions, and by the addition of color, to make them as arbitrary as the most creative work could be. I was as free to do this as any painter of fruit or faces is free to choose his subject."6

The mathematical model of a surface generated by the normals of a rotational paraboloid, with its buttockslike curves, is transformed by Man Ray into the intertwined bodies of Romeo and Juliet [SE-7, p. 81]. Perhaps the pair of forms represents the passionate embrace at the end of the play, when Juliet kisses Romeo's poisoned lips, stabs herself with his dagger, and falls dead upon his body.⁷ The tragic tale of the star-crossed lovers with its many descriptions of the sun, moon, and stars is reflected in the celestial form floating in the upper-right quadrant of the composition.

By illustrating this emotionally charged scene using exacting mathematical shapes, Man Ray alters the function of these tools of knowledge, as well as Shakespeare's statements concerning human love and loss. Commenting on the transition from photographs to paintings, Arturo Schwarz noted Man Ray's juxtaposition of "two distant realities-the mathematician's rational universe and Shakespeare's poetical universe. Man Ray's poetical operation did not stop at the semantic and pictorial level, it also involved his philosophy of life, since in throwing a bridge between the rational and the poetic he was actually finding a Surrealistic solution to what Breton had termed 'the meretricious nature of old antinomies,' action and dream, life and art."9

3 Man Ray, Self Portrait, 368-69.

4 Man Ray to Roland Penrose, August 23, 1948, Roland Penrose Archive, Scottish National Gallery of Modern Art Archive, Edinburgh,

5 In a postcard dated April 28, 1948, Juliet Man Ray writes to Man Ray's niece Naomi Siegler: "Man Ray is painting wonderful human equations, that's what he calls the new series of paintings." Man Ray letters and album, Gettv.

6 Man Ray, "Note on Shakespearean Quotations," 12.

7 Man Ray had already dealt with Shakespeare's Romeo and Juliet in 1926, when he photographed the dancer Serge Lifar as Romeo, wearing a black-and-white mask and gloves, recalling his Noire et Blanche of the same year [fig. 126, p. 148]

9 Schwarz, Rigour of Imagination, 77-78.

During the nineteenth century, mathematical models had been popular tools for teaching algebraic equations and trigonometry in university mathematics classes. They were products of a rational, positivist, scientific view of the natural world. However, by the mid-thirties, when fellow Surrealist Max Ernst introduced Man Ray to the models, they had long since fallen out of favor and were gathering dust in the display cabinets at the Institut Poincaré in Paris as well as in other European and American teaching institutions. Drawn to these objects embodying precision and abstraction, Man Ray seemed to respond to the positivistic, definite truth they represented, recreating them as suggestive, Surrealist objects.

In a large body of photographs and objects created in the thirties concurrently to his photographs of the mathematical models, Man Ray made use of plaster casts of iconic classical sculptures, another type of teaching model whose use was also in decline. The use of these two different types of models could suggest that for Man Ray the two types were both endowed with order, harmonious proportions, and a sense of eternity.

PLASTER MODELS: MAN RAY'S INTEREST IN THE OBSCURE AND OBSOLETE

The conventional representations of the geometric sources in nature are seductive only to the extent of their power of obscuration. ANDRÉ BRETON AND PAUL ÉLUARD, L'IMMACULÉE CONCEPTION, 1930

The practice of copying from classical sculptural masterpieces emerged in fifteenth-century Renaissance Europe and remained a principal teaching practice in fine art schools worldwide for centuries afterward. Casts enabled artists to study human anatomy and to absorb the concept of ideal beauty. Replica collections were drawn from the canon of ancient Greek and Roman sculpture and were the basis for royal or courtly academies of arts. During the mid-eighteenth century, Johann Joachim Winckelmann's idealization of antiquity contributed to the flourishing of Neoclassicism. Leading art academies and museums, such as the Louvre and the Metropolitan Museum of Art, maintained molding departments, actively disseminating this classical legacy.¹⁰ The positivistic approach of the late nineteenth century promoted the unifying and standardizing effects of plaster casts, guaranteeing a faithful reconstruction of the ancient originals, which were located in collections throughout the world. The use of plaster casts peaked between 1870 and World War I but then declined due to developments in photography and changes in art education reflecting new aesthetic ideals.

Much like the mathematical casts featured in Man Ray's work, the plaster casts he utilized as figures reflects his subversion of academic forms for the purpose of creating alternative representations of the human body. These casts were 10 Johannes Siapkas and Lena Sjögren, Displaying the Ideals of Antiquity: The Petrified Gaze (London and New York, 2013), 85, 95-96.

fundamental to the teaching of art yet, like the mathematical models, began to fall increasingly out of use in the academic community during the period up to World War I. By employing them in fragmented, reconfigured forms, Man Ray seemed to be using them in a deliberate manner to symbolize human flesh and perhaps to question the absolute knowledge suggested by these forms. Linked by material, period, and use, the plaster casts and the mathematical models took up similar roles in Man Ray's work.

Man Ray's relationship with the Antique was complex. In 1972, he told Bourgeade, "I like the Ancients but we cannot outdo them. The only thing you have to do is something different . . . something else . . . that may be incomprehensible for the Ancients . . . and also for us. I love incomprehensible things."¹¹

Man Ray incorporated plaster casts of the Venus de' Medici, the head of Niobe, and the Three Graces in numerous photographs and objects. Such replica casts, as well as those of the Venus de Milo and Nike of Samothrace, were widely circulated throughout Europe, whether as complete sculptures, sized-down versions, half-casts, or fragments. In Paris, they were available for sale at the national museums and specialist shops, such as Lorenzi on the rue Racine where Man Ray found a cast of the Three Graces.¹² Giorgio de Chirico's *L'Incertitude du poète* (The Uncertainty of the Poet), 1913, and René Magritte's *La Lumière des coïncidences* (The Light of Coincidences), 1933, likewise incorporate images of a sculpted plaster torso of Venus, turning to classical art to represent tranquility, grandeur, and timelessness, as well as toying with the ambiguity between real and illusory space.

With the Greek Aphrodite and Roman Venus, the female nude assumed its role in the history of art as the symbol of ideal beauty.¹³ Man Ray concomitantly adopted and undermined fundamental elements of Winckelmann's Neoclassicism as related to this conception of human perfection. For both artist and scholar the goal of art was beauty, and this goal could be attained only when individual characteristics were subordinated to an artist's general scheme. Man Ray thus created an ideal image of the body in which proportions are maintained yet specific features such as muscles and veins are subdued, preserving the harmony of a general physical outline while also retaining its suggestiveness. But this was only part of the equation.

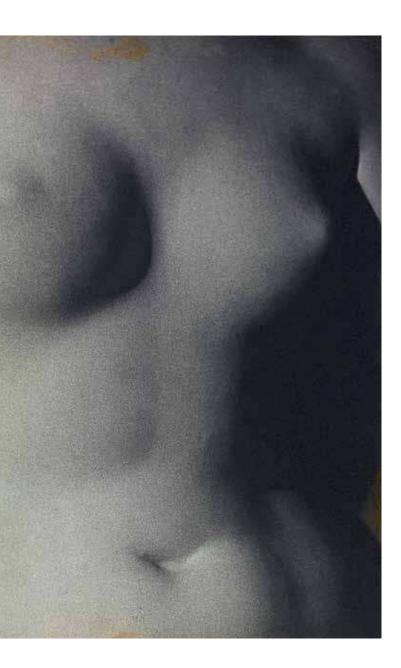
In many of his photographs and objects of the thirties, Man Ray manipulated plaster casts of these symbols of sensuality and eternal beauty, offering a Surrealist, subversive commentary on the antique. Man Ray chose to act upon the Medici Venus, a copy from the first century BC of Praxiteles's earlier Aphrodite of Cnidus, the first monumental nude cult statue of Aphrodite. By netting, tying, and painting a plaster surrogate of the female body, Man Ray destabilizes the classical and the academic.

First appearing in his work in the late twenties or early thirties [fig. 138], in 1936 Man Ray transformed

11 Bourgeade, *Bonsoir, Man Ray*,22; translation by the author.

12 In reference to the proposed replication of his *Target / Mire universelle* (Universal Sight) [fig. 149], originally made in 1933, Man Ray wrote to Arturo Schwarz on December 9, 1970: "The cast, plaster came from the shop of Lorenzi, rue Racine, the wood forms, except the hand, from Deyrolle, rue du Bac, Paris." The Arturo Schwarz Library of Dada and Surrealist Documents, Periodicals, Books, Manuscripts, and Letters in The Israel Museum, Jerusalem.

13 R.R.R. Smith, *Hellenistic Sculpture: A Handbook* (London, 1991), 81.



[fig. 138] Vénus, ca. 1929-33. Gelatin silver print

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the plaster cast of the Venus de' Medici into an object later known as Vénus restaurée (Venus Restored), immortalized in the photograph Torso [fig. 144], before it was dismantled and later recreated in an edition of 10 in 1971 [fig. 143]. Man Ray's "restoration" consisted of lacing the torso with rope, in the manner of an unusual type of corset. Instead of physically completing the figure with the missing limbs or head, Man Ray captured the viewer's erotic imagination, heightening awareness of Venus's sexuality. Following this trajectory, Man Ray assembled Vénus, 1937 [fig. 139], since dismantled, again playing with boundaries and bondage, encasing the goddess's head in netting, as if she had been fished up from the sea.

Man Ray continued his exploration

of the relationship between the human figure and the academic object in photographs by staging bewildering encounters between the female body and the fragmentary cast of Venus, the real and the ideal, the animate and the inanimate [fig. 140]. The white fragmented plaster casts are at times positioned in a manner that arouses associations with death [fig. 141]. In a scene of erotic female encounter between a nude and the Venus cast [fig. 142], the figures of the living woman and her specter (Eros and Thanatos) mimic one another, as the woman's breast fills the concave space above the cast's belly. This scene harks back to the Greek myth of a young man who broke into the temple of Venus at night and attempted to copulate with the statue. The confrontation of real physical sexuality with the ideal and artificial evokes a disorienting erotic response, which Man Ray undoubtedly sought.

Captivated by the idea of copies, simulacra, and authorship, Man Ray was sensitive to the destabilizing act implied in his use of plaster casts. He played with their multiple levels of representation: from Greek original, to Roman copy, to plaster cast, to multiple photographs in which the body is intriguingly staged next to its artificial double. The reflected or mirror image recurs throughout Man Ray's work as a mechanism of displacement and transformation. He identified with the Marquis de Sade, who likened the multiple impressions produced by the mirror to the diversity of the human imagination.¹⁴ In an untitled photograph of 1933 [fig. 150], a photographer's light reflector is superimposed onto Venus's torso. Symbols of vanity and the ideal of classical beauty, the mirror is held up to Venus's head rather than to nature in an untitled photograph of 1931 [fig. 151], creating a double illusion and a blurred distinction between reality and artifice.

The use of mathematical and plaster models also lent a cool anonymity to Man Ray's artistic gesture. Man Ray theatrically employs the casts as a variant of the chorus in a Greek play, which not only witnesses the drama but also comments

[fig. 139] Vénus, 1937. Assemblage: plaster cast and net [fig. 140] Nu allongé et Vénus (Reclining Nude with Venus), ca. 1936. Virtual positive from gelatin silver bromide negative [fig. 141] Meret Oppenheim et Vénus (Meret Oppenheim with Venus), ca. 1935. Gelatin silver print [fig. 142] Nu et Vénus (Nude with Venus), ca. 1937. Virtual positive from gelatin silver bromide negative

14 Man Ray included a passage from de Sade's Justine (1787) in the catalogue of his 1939 exhibition at the Galerie de Beaune that described a mirror as being capable of making as many different reflections of a particular object as has the human imagination facets and moods. Man Ray: Peintures récentes, exh. cat. Galerie de Beaune (Paris, 1939), n.p. On Man Ray and de Sade, see also Peggy Schrock, "Man Ray's Perpetual Sadism," Art International, no. 9 (Winter 1989): 63-68.



[fig. 143] Vénus restaurée (Venus Restored), 1936/1971. Assemblage: plaster cast and rope [fig. 144] Torso, 1936. Gelatin silver print

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and interprets it [figs. 149, 145, and 146]. Indeed, in ancient Greece, sculptures of Venus and other gods were placed in niches in the architecture of the theater. The goddess originally wore jewelrybracelet, earrings, and headband-and was often embellished with polychromy, a practice Man Ray re-enacts by applying makeup and adorning his heads of Venus with headbands, necklaces, eyebrows, rouge, and lipstick [figs. 145, 147, 152, and 154]. Some of these images also functioned as advertisement tools for beauty products in magazines.¹⁵ In an untitled composition from 1931 [fig. 152], the made-up Venus is presented with a cello neck and a cylinder topped by a pear, seemingly bringing together a comparative assortment of perfect natural and artificial forms.¹⁶ In a 1933 image in which the earlier photograph of her torso functions as a backdrop to a plaster cast of Man Ray's own head, Venus may arguably serve as a female counterpart to the artist [fig. 148]. In *Man Ray endormi* (Man Ray Asleep) [fig. 146], the lamp serves as an attribute of the artist, who seemingly dreams of an encounter with Venus whose torso hangs above his bed.

In Target / Mire universelle (Universal Sight) [fig. 149], an assembly of objects portraying anatomy and geometrical forms, the low relief of a headless group of the Three Graces is mounted on a plywood board, to which Man Ray pasted a set of charts used by photographers to test the sharpness of their lenses. On a rectangular block of wood at the foot of the Three Graces, he glued three vertical wooden structures: a hexahedron, a pyramid, and a cylinder surmounted by a cone. The juxtaposition of the geometrical shapes in the foreground and the female curves of the background creates a striking contrast. The rhythmic anatomical perfection of the Three Graces' bodies echoes the mathematical rhythm of the three geometrical forms. Man Ray's physical presence in this assemblage is suggested by the tools of his trade (the photographer's charts), as well as by the mannequin's hand in the foreground. The Three Graces are not only headless, however, they are also the objects of aggression, as implied in the invitation contained in the title Target. Reflecting Man Ray's anger and sorrow at losing his assistant and lover, Lee Miller, these violent implications also relate to Man Ray's known fascination with the Marquis de Sade, who was a subject of passionate discussion in Surrealist circles.17

The use of plaster models, mathematical or classical, may also have enabled Man Ray to imbue photography with a past, a seriousness associated with antiquity. He wrote: "Painting dates back thousands of years. Photography is barely a hundred years old. It is the most primitive art today.... Using mud, Titian and Rubens gave us the flesh of Venus. Until now

[fig. 145] Untitled, ca. 1930. Gelatin silver print [fig. 146] Man Ray endormi (Man Ray Asleep), ca. 1930. Gelatin silver print [fig. 147] Tête en plâtre (Plaster Head), ca. 1932. Gelatin silver print [fig. 148] Untitled, 1933. Virtual positive from gelatin silver bromide negative

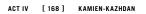
15 For example, Man Ray's photographs of plaster heads with makeup were illustrated alongside articles by Elizabeth Arden and Helena Rubinstein promoting their cosmetics in French fashion magazine Fémina (August 1932): 23, 26, 27.

16 The pear resting on a cylindrical pedestal likely symbolizes Erik Satie's piano composition Trois morceaux en forme de poire. With the addition of the cello neck, the work features three objects combined, and thus "trois morceaux." My thanks to Andrew Strauss for this insight.

17 See note 15.



[fig. 149] Target / Mire universelle (Universal Sight), 1933/1971. Assemblage: plaster, wood, and optical papers







[fig. 150] *Untitled* (Photomontage with Nude and Studio Light), 1933. Gelatin silver print

[fig. 151] Untitled, 1931. Gelatin silver print [fig. 152] Untitled, 1931. Gelatin silver print



photography has reversed the process, making soot of human flesh. Except when it has given us goose-flesh. Through this hard eye in a black box, this thick piece of glass bent by the weighty calculations of imaginative mathematicians, we seek compensation for our frustrated desires."¹⁸ Through imaginative staging, lighting, and cropping, Man Ray creates flesh out of plaster and photographic soot [fig. 138].

18 Man Ray, "Photogenic Reflections," Berkeley: A Journal of Modern Culture, no. 9 (December 1950): 1.



STAGING DISPLACEMENT: OBSERVATORY TIME—THE LOVERS

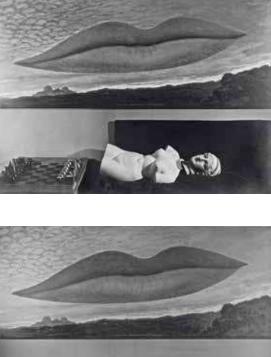
Man Ray's blurring of distinctions between the animate and inanimate is evident in his staging of a series of black-and-white photographs created in the mid-thirties in his rue du Val-de-Grâce studio-apartment and featuring his painting A l'Heure de l'observatoire—les amoureux, 1932-34 [fig. 153]. Whether or not Man Ray meant them to be seen as a series, these photographic compositions [figs. 154–159] constitute variations on a theme and can be read as a kind of stage scenario or projected filmstrip. In this series, Man Ray configured and reconfigured a group of elements within a specific, replicated setting; by using evocative lighting and cast shadows his studio became an ideal locale for experimentation. The artist's organizing principles of similarity and difference gave each component new meaning through its recontextualization.

The first recurring prop in this series is Man Ray's iconic painting A l'Heure de l'observatoire—les amoureux, in which Lee Miller's lips hover in a cloudy sky above the Jardin du Luxembourg and the Observatoire de Paris.¹⁹ Although the painting represents an idyllic dream realm or fantasy of blissful union, the series of photographs in which it featured was created several years after Man Ray and Lee Miller parted in 1932, thereby becoming images of a paradise lost. Man Ray associated the manmade domes of the observatory with the female form, as he did concurrently with the mathematical models. In his autobiography, Self Portrait, Man Ray described his work process and visual associations:

One of these enlargements of a pair of lips haunted me like a dream remembered; I decided to paint the subject on a scale of superhuman proportions. . . . The red lips

[fig. 153] A l'Heure de l'observatoire—les amoureux (Observatory Time—The Lovers), 1932-34. Oil on canvas

19 A l'Heure de l'observatoire*les amoureux* now in a private European collection, sold for \$825,000 in the 1979 auction of the William N. Copley collection at Sotheby Parke-Bernet in New York, establishing a record price for a work by Man Ray and for any Surrealist work.



[171]





[fig. 154] Untitled (A l'Heure de l'observatoire—les amoureux with Chess Set and Plaster Casts), ca. 1934. Gelatin silver print [fig. 155] Untitled (A l'Heure de l'observatoire—les amoureux with Chess Set and Nude), ca. 1934. Gelatin silver print [fig. 156] Untitled (A l'Heure de l'observatoire—les amoureux with Chess Set and Nude), ca. 1934. Gelatin silver print

floated in a bluish gray sky over a twilit landscape with an observatory and its two domes like breasts dimly indicated on the horizon-an impression of my daily walks through the Luxembourg Gardens. The lips because of their scale, no doubt, suggested two closely joined bodies. Quite Freudian.²⁰

Man Ray indicated that the painting "hung in my studio, dominating the photographic activity, until the war came."²¹ In 1936, Alfred Barr included it in The Museum of Modern Art's exhibition Fantastic Art, Dada, Surrealism, where its installation was enthusiastically described by Man Ray: "The doors were wide open, so that the entrance floodlit my Lovers, which seemed to strike the keynote of the exhibition. Here my painting stood out in all its scale and provocative intent."22 After the exhibition, Helena Rubinstein asked for the painting and "displayed it in her magnificent new beauty emporium on Fifth Avenue, featuring a new lipstick or some other beauty product."23

The second prop in this series of photographic compositions is Man Ray's chess set, first assembled from found objects in 1920. Man Ray's interest in the game and the set's design reflect the artist's rich creative exchange with Marcel Duchamp, with whom he shared many chess matches and supported chess foundations (see p. 82). In perhaps the most striking composition in the series [fig. 154], two plaster casts appear on the sofa: one the torso of Venus de' Medici, the other a classical head of Niobe. The painting appears as a prop in the photograph, like the couch and chess set, while the casts are disturbingly positioned on the divan. Through the Surrealist tactic of *dépaysement*, or estrangement, these plaster casts are taken out of their normal academic or classical context (or literally removed from their "native land") and newly juxtaposed in ways that disorient, surprise, and refresh our vision. In other compositions within this

series, Man Ray stages a live nude reclining on the couch [fig. 155]. The model's back is displayed for the viewer, the curves of her body echoing the painted lips above, and the chess pieces are in their initial position on the board at her feet. On the back of this print, Beaumont Newhall, who in 1940 became the first curator of the photography department at The Museum of Modern Art, underlined a possible multivalent interpretation of the female body, noting that "The breasts/shoulder-blades pun only became apparent when the image was developed: a perfect Surrealist coincidence." In a related composition, a nude sits in a fetal position, and the contours of the bed and pillows mimic the landscape of the painting [fig. 156]. In yet another version, one of Man Ray's fashion photographs published in

[fig. 157] Untitled (A l'Heure de l'observatoire—les amoureux with Model) published in Harper's Bazaar, November 1936 [fig. 158] Self-Portrait with A l'Heure de l'observatoire-les amoureux and Chess Set, ca. 1934. Virtual positive from gelatin silver negative [fig. 159] Untitled (A l'Heure de l'observatoire—les amoureux with Chess Table), ca. 1934

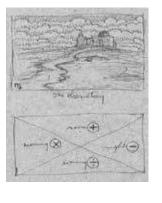
20 Man Ray, Self Portrait, 255.

21 Ibid., 258.

22 Ibid., 257.

23 Ibid., 206-10. See also Marie J. Clifford, "Helena Rubinstein's Beauty Salons, Fashion, and Modernist Display," Winterthur Portfolio 38, no. 2-3 (Summer/ Autumn 2003): 102, 257.

In his fifth variation, Man Ray, as a self-assured artist, sits on the sofa intensely scrutinizing the viewer [fig. 158]. In this version, the chess pieces have been moved, possibly with the mahlstick Man Ray holds in his hand. In what appears to be a final variation, the already familiar divan and chess table are left bare [fig. 159]—perhaps inviting viewers to occupy the artist/ analyst's couch in their imagination, and project their own game of alternate realities and desires. This potentially limitless series is reminiscent of a filmstrip, exposing the viewer to the artist's deliberate creative process and power of invention. Man Ray thus draws attention to himself as the creator of the work, a constructor of images composed of visual paraphernalia he regularly accumulated. A l'Heure de l'observatoire—les



the November 1936 issue of Harper's Bazaar, an elegantly bedecked reclining model reaches up toward the equally idealized scene represented in the painting [fig. 157].

amoureux was shown at the Copley Galleries in 1948, alongside the Shakespearean Equations paintings. As established in the artist's correspondence with Katherine Dreier, president of the Société Anonyme, Copley recognized the importance of the painting and purchased it for his own collection.²⁴ While living in Hollywood in the forties, Man Ray made copious handwritten and typed notesprincipally on the subject of art and aesthetics-later known as the "Hollywood Album."²⁵ A drawing of the Observatoire de Paris is found at the beginning of the album, much as it appears in A l'Heure de l'observatoire—les amoureux. Below the drawing he included a similar rectangle divided into four triangles, each with a time of day and mathematical sign. Perhaps signifying the relative intensity of light [fig. 160], Man Ray's diagram links the world of mathematics with his iconic image of passion, as he had done in his treatment of mathematical models and classical plaster casts in the thirties.

24 Man Ray, letter to Katherine Dreier, February 20, 1949, Katherine S. Dreier Papers / Société Anonyme Archive, Yale Collection of American Literature, Beinecke Rare Book and Manuscript Library, Yale University.

25 Unpublished notes, Man Ray letters and album, Getty.