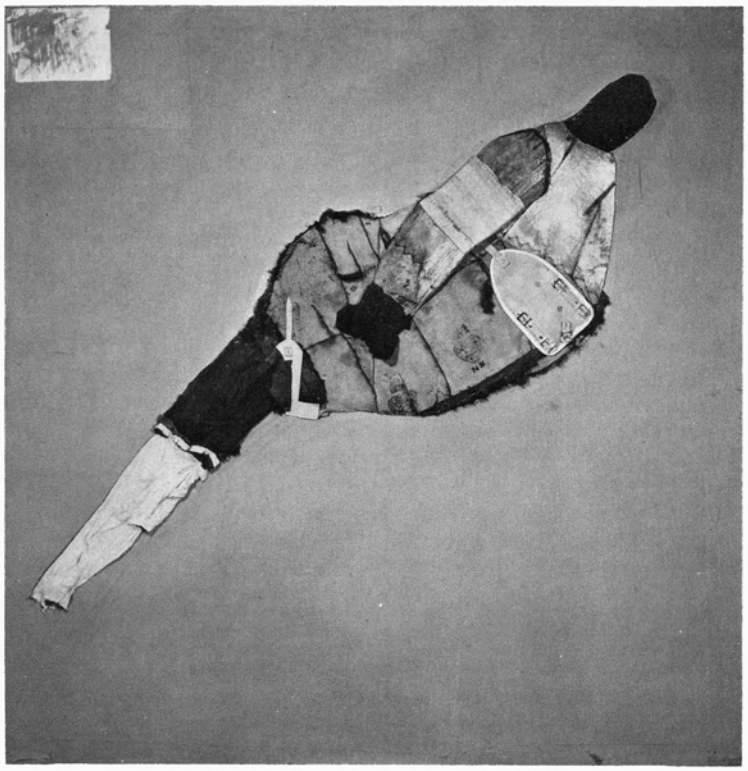

Fig. 1. Ernest Trova, Study: Falling Man (detail of triptych), 1961. *Collage on plywood, 96 x 240". Photograph Neil Sauer. Courtesy The Pace Gallery.*

So America and the world would be in a round of congratulations—we had landed a man on the moon. . . . Yes the century was a giant and a cretin. Man had become a Herculean embodiment of the Vision, but the brain on top of the head was as small as a transistorized fist, and the chambers of the heart had shrunk to the dry hard seeds of some hybrid future.

—Norman Mailer, *Of a Fire on the Moon*

With the emergence of his first freestanding sculpture in 1964, allusions to the human condition found in Ernest Trova's preceding figure-dominated paintings and collages acquired a more fully realized expression, becoming a central issue for his art during the next three years. From the beginning of the Falling Man series this potential content existed, inherent in the artist's choice of human-based form as his exclusive motive (Fig. 1). Between 1961 and 1963, the anatomic streamlining represented in the image, combined with the astronaut reference of its costume and the figure's installation in a mechanical framework, allowed for the motive's identification with a twentieth-century state of being (Fig. 2). However, beyond recognition of its contemporary derivation, the figure offered few visual clues that might reflect a specific attitude or convey narrative development. Only with the incorporation of fragmented mottoes into the emblematic paintings of 1963 and 1964 did a more definite sentiment toward man suggest itself (Fig. 3). Having introduced this level of meaning through the mottoes, Trova turned to explore its expressive possibilities in the figure itself, now expanded into sculpture for a St. Louis Famous Barr and Company Department Store commission.[1]

ERNEST TROVA'S "STUDY: FALLING MAN" (1964-1967): THE THIRD DIMENSION AND THE TECHNOLOGICAL DILEMMA

ARLETTE KLARIC

Confronting an issue of universal import, Ernest Trova's Falling Man series of the mid to late 1960s records the artist's sensitive impressions of twentieth-century humankind and the technologically preoccupied civilization as Trova has personally experienced them.

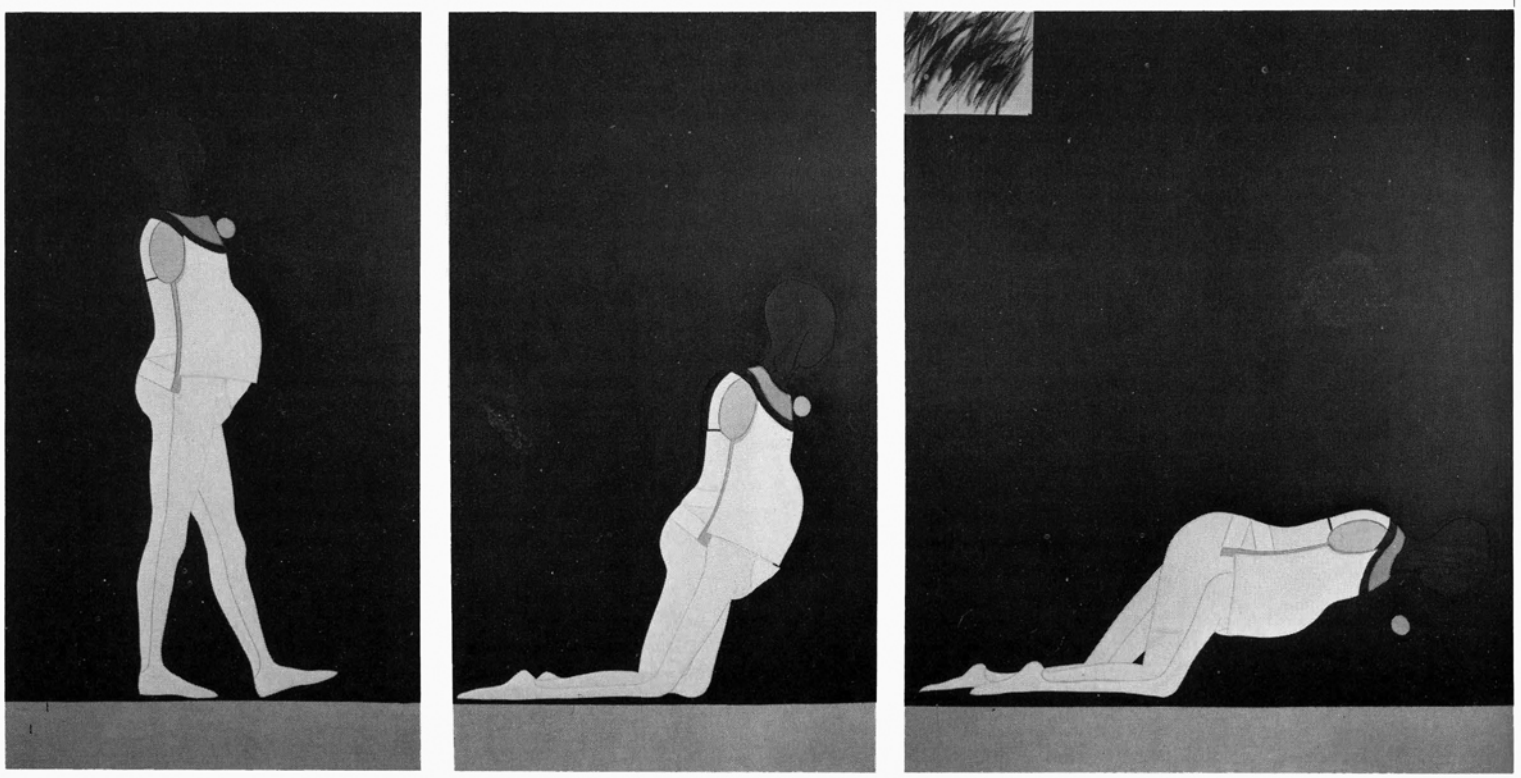

Fig. 2. Ernest Trova, Study: Falling Man (triptych), 1961. *Collage and liquitex on canvas, 72 x 120". Photograph Neil Sauer. Courtesy The Pace Gallery.*

The artist's new content implications for his figure-motive are signaled by the addition to the basic image of appendages, accessory details, and an expanded spatial context. No longer did Trova conceive of the motive primarily as a diagrammatic sign or a unit of design. Rather, with its translation into the third dimension, the figure image gained in physical and psychological presence. The prominent and recurring juxtaposition of the motive with mechanical devices, the placement of the figure in what the artist has designated "landscapes," and the use of industrial techniques and media to assemble the sculpture enhance and particularize the twentieth-century reference to read as a technological allusion (Fig. 4).[2] Thus Trova's sculpture from the mid to late 1960s invites interpretation as a parody on twentieth-century man and his accommodation in a technological civilization.

Working apparently with minimum programmatic direction and generally reluctant to comment on his art, Trova has volunteered only a few terse observations about the more obvious social implications of his figure. For the most part, his commentary has come after the art and proves in its cryptic simplicity to be more provocative than enlightening. He has referred to his image as expressive of "a personal theory on the nature of man." Man, in his opinion, is "an imperfect creature" who through his failings may "destroy the world" but who "has the capacity for meeting crises without hysteria, with intelligence and dignity."[3] With but slight variation in their phrasing, such truistic statements constitute the primary sentiments that Trova has continued to voice about this phase of the Falling Man series. Yet he has intimated that his interest in human destiny originated from his immediate experience of a machine-dominated contemporary environment. He has commented on the paradoxical appearance of his figure-motive: "The mere fact that he is sleek and evidently perfect in his own nature doesn't mean that he's sleek and perfect in the eyes of the Lord."[4] More specifically, Trova has described his *Venice Landscape* (Fig. 5) as symbolic of "the world today with its IBM machines," and the mechanical devices utilized there as representative of the equipment requisite for existence in an "alien atmosphere."[5]

Outside the context of his art Trova has admitted a concern for the future of man based on his belief in the arbitrary origins of the human race, its innate imperfection, and the modification worked upon mankind by historical events and circumstance. He regards human existence as an "historical accident" and shares the common belief that "the characteristic phenomenon of our time" is "the progressive dehumanizing of man." On the basis of human "irrationality" and technological evolution Trova has postulated four hypothetical destinies for the human race:

1. There might arise a "one world-one mind" where everything is the same. This is the *1984, Brave New World* image in which man is dehumanized until he merges with the whole of society.
2. Man might merge with the machine and accept the values of the machine age, living only for the perpetuation of the machine culture.
3. This machine value system might come and go and come again, man's values remaining a in a constant state of flux.
4. Man, through his irrationality, might destroy himself completely. This he feels is the most likely. He feels there is apt to be an atomic war for "there is no reason why we should be blessed without it."[6]

About technological prospects, Trova's sentiments appear to be mixed. On the one hand, he has advocated stoic acceptance, noting that the supersedence of "values of mechanization" over "values of the humanities" is not "in itself bad, for if man is no longer humanistic, then there is no reason why he should have humanistic values." In another instance he has expressed alarm over a growing dehumanization of man, proclaiming it to be "the greatest danger in today's society."

As will be demonstrated, whatever Trova's admitted reluctance to make calculated philosophical statements through his art, his sculpture as well as his ideas regarding mankind do share a similar preoccupation with technological advancement and its consequences for contemporary civilization. Even so, Trova's direct observations on the human-technological reference of his art from this period confirm only the most obvious implications of this reference, those that are readily accessible through viewing of the works. To evaluate more completely the content allusions from this phase of Trova's Falling Man, in this essay I consult a classic theoretic analysis of technology, Jac-

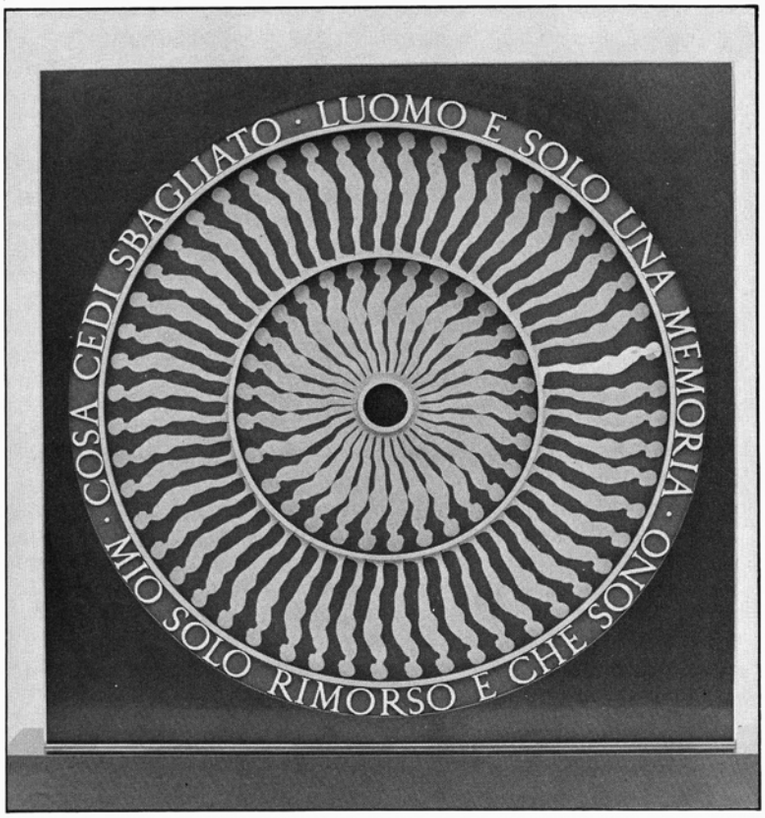

Fig. 3. Ernest Trova, F.B. #11: Study: Falling Man, 1964. *Motorized construction, 75". Photograph Neil Sauer. Courtesy The Pace Gallery.*

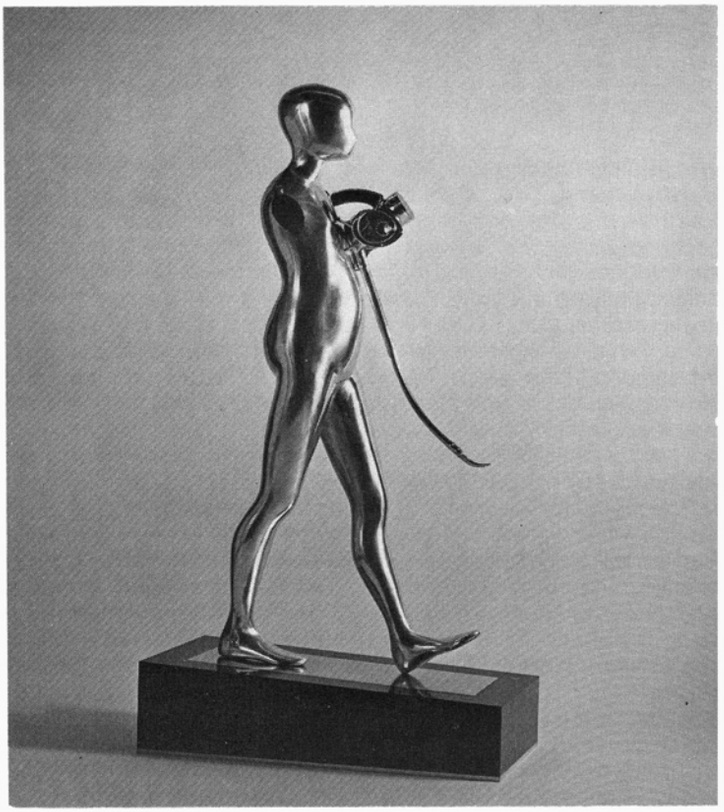

Fig. 4. Ernest Trova, Study: Falling Man (Walking Man), 1964. *Chrome-plated aluminum, 60". Photograph Neil Sauer. Courtesy The Pace Gallery.*

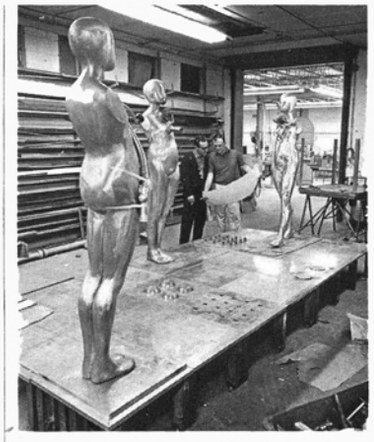

Fig. 5. Ernest Trova, Study: Falling Man (Venice Landscape), 1965-66. *Satin-finish silicone bronze, 90 x 168 x 72". Photograph Neil Sauer. Courtesy The Pace Gallery.*

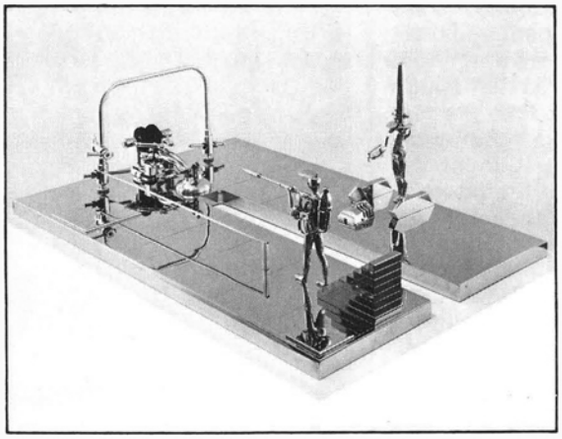

Fig. 6. Ernest Trova, Study: Falling Man (U-Landscape #56), 1968. *Nickel-plated bronze, 10 x 26¾ x 18". Courtesy The Pace Gallery.*

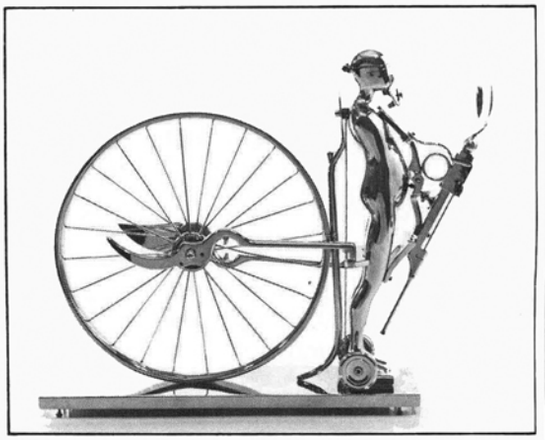

Fig. 7. Ernest Trova, Study: Falling Man #121, 1969. *Nickel-plated bronze, 13½ x 14 x 3". Courtesy The Pace Gallery.*

ques Ellul's *Technological Society* (1954), and review one well developed area of current technological application, the American man-in-space program of the 1960s, one instance where technology has been given free rein.[7] The close parallels found among the art and technological theory and implementation attest to the astuteness of Trova's intuitively derived model of the technological domain. Beyond the immediate aesthetic experience, Trova's sculpture from this period may be seen to provoke its audience to more profound consideration of technological progression and, particularly, of the implications of human and mechanical interdependence and of the impact of technological advancement on the quality of human existence in both social and environmental dimensions.

Trova's sculpture concurs with United States Project Mercury operations and policies as well as with Ellul's theoretic views in conceiving the relationship of man and his technological devices to be one of interdependence. In Trova's *Study: Falling Man (Walking Man)* of 1964 (Fig. 4), an electric rose duster affixed to the chest of a 60-inch figure acts as a substitute limb in the absence of arms but implies a more vital function through its point of attachment. The three figures of *Study: Falling Man (U-Landscape #56)* of 1968 (Fig. 6) record a gamut of technological encroachment upon the human terrain. For the figure-motive stationed before the steps, the mechanical fulfills a dual purpose. It provides tank gear for a secondary environmental system; and, through the lancelike extension, it seemingly restores the figure's former authority over its mechanical creations. In contrast, the companion motives' exercise of initiative has been curtailed by the pointed metal cap clamped on the head of the one and by the cumbersome mechanical complex pinning the ankles, torso, and head of the other. In fact, in this particular instance the human-mechanical juxtaposition assumes the appearance of a foreboding scenario, the capped figure threatened most immediately with suffocation and the prone figure, locked into what resembles a torture device, menaced by two spikes aimed at its body and by the lancelike appendage wielded by the striding figure.

Minus the dramatic overtones of *U-Landscape #56, Study: Falling Man #121* of 1969 (Fig. 7) likewise depicts man as a machine-encased image. Installed on a wheeled platform and reinforced with a brace, this figure functions as a basic structural unit, supporting and linking the mechanical apparatus attached to its body. In such a context the silhouette of the figure-motive rivals that of any of the surrounding mechanical parts for its sleek contours. Finally, the figure's inclination toward merger with mechanical structure climaxes with *Study: Falling Man (Car Man)* of 1968 (Fig. 8), where the image is modified to serve as the body of a car. Streamlined with elongation of its feet to a friction-free point and the encasement of the head and upper torso in a shield, the image would satisfy the highest standards of aerodynamic efficiency. But whatever the episode of interdependence presented by Trova, harmony prevails, glamorized by the eye-catching surfaces that dissolve all boundaries between motive and mechanical silhouettes.

Paralleling Trova's artistic propositions, the American manned space flight program has found the collective efforts of human and mechanical resources to be crucial to its implementation and success. In 1959 during the early stages of planning and development of Project Mercury, and more specifically in its establishment of standards of reliability, the role of the astronaut in space became a much debated issue. Experts in missile and rocket technology contended that, for maximum safety, space operations should be performed by automatic controls with man merely an observant passenger replacing the warhead payload. Aviation specialists, on the other hand, argued that greater reliability rested with the astronaut's retention of a pilot capacity and some ultimate control over his craft.[8] As the project progressed and trouble with various automatic systems mounted, a greater role was assigned to the astronaut, and man and machine were recognized as directly interdependent. This relationship was acknowledged in retrospect by Christopher C. Kraft, Jr., chief flight director of the Space Task Group:

> The real knowledge of Mercury lies in the change of the basic philosophy of the program. At the beginning, the capabilities of Man were not known, so the systems had to be designed to function automatically. But with the addition of Man to the loop, this philosophy changed 180 degrees since primary success of the mission depended on man backing up automatic equipment that could fail.[9]

Accordingly, inside the spacecraft occupied by Alan Shepard on the first suborbital flight in 1961, technology furnished an automatically regulated environmental system backed up by human and mechanical alternatives. "7 miles of electrical wiring, hundreds of controls, lights, fuses, and intricate machinery," in conjunction with the Mercury control room instrumentation on Earth, informed Shepard of current flight conditions and craft functioning and assisted him in the guidance and maneuvering of the vehicle (Figs. 9 and 10).[10]

Lending intellectual credence to Trova's sculptural portrayal, Ellul's critical study insists that in the Technological Society technical supremacy would necessitate the establishment of a friction-free liaison between the human and the mechanical: the development of "machine techniques to such a pitch of reflection that even man face to face with the perfectly functioning machine no longer has human initiative or the desire to escape" (p. 413). Ellul has attributed both the possibility of this human-mechanical bond and the emergence of a modern technological civilization to an abstract determinant which he designated "technique":

> Technique integrates the machine into society. It constructs the kind of world the machine needs and introduces order where the incoherent banging of machinery heaped up ruins. It clarifies, arranges, and rationalizes; it does in the domain of the abstract what the machine did in the domain of labor. It is efficient and brings efficiency to everything (p. 5).

Behind the current domination of "technique," Ellul has maintained, lies an historical development originally tailored by the

needs of the machine, which in turn served those of a human master. In fact, without mechanical and human sires there would have been no realm of "technique." Progress has favored the growth of "technique" and the reordering of the hierarchy, so that today "technique" can flourish as an autonomous power to which man and machine alike yield: "Technique has become a reality in itself, self-sufficient, with its own special laws and its own determinations" (p. 134). Now its servant, says Ellul, the machine continues to function as a model for "technique," embodying those ideals to which "technique" endeavors to submit the whole of existence. Man's superior role as creator-parent has evolved toward that of catalyst. Future technical decisions, increasingly governed by the principles of "the one best way" and of efficiency, will no longer require human intervention:

> Technical elements combine themselves, and they do so more and more spontaneously. In the future, man will apparently be confined to the role of a recording device; he will note the effects of techniques upon one another and register the results (p. 93).

Those qualities generally regarded as human, as a "source of error and unpredictability," would be eliminated so that "technique" could reach its fullest potential.

Thus Ellul has regarded the human-technological union as an external, tangible manifestation of the abstract power exerted by "technique" and as a measure of its accelerating infiltration and domination of contemporary life. The shifting balance between human authority and mechanical control witnessed in the sculpture may be interpreted as a capsule representation of technical evolution, man functioning alternately as inventor, catalyst, and monitor. The exclusive figure silhouette of Trova's Falling Man series, in itself, would seem to epitomize in symbolic abbreviation the apotheosis of this union of man and machine upon which Ellul's Technological Society is predicated (Fig. 11). While retaining a human anatomic reference, physicality, and even sensual appeal in the full-blown curves of its torso and in its shapely legs, the contours of the figure-motive sustain an unswerving commitment to the principles of efficient aerodynamic streamlining.

Accompanying the expanding domination of "technique" over modern civilization, Ellul has noted, are extensive revisions in the mode and manner of daily existence. Whether worked upon the individual, social interaction, or environmental relations, technical reverberations follow a similar pattern of action. The existing order is disrupted and a new technical structure is superimposed. From this all-inclusive renovation emerges a dehumanized "mass man," dependent upon technological intermediaries to relate him to other men and to his environment. Ironically, though uniform standards are applied throughout, rather than strengthening social and environmental bonds, the modification process further estranges man from man and man from environment, leaving the technological as his only constant companion.

The radical alteration of the human represented in Trova's distinctive motive complements the "mass man" revision forecast by Ellul's theoretic examination and previewed in the selection and training of the astronauts for the American manned space flights. As illustrated in *U-Landscape #56* and *Walking Man*, Trova's figure-images evince an assembly-line origin with

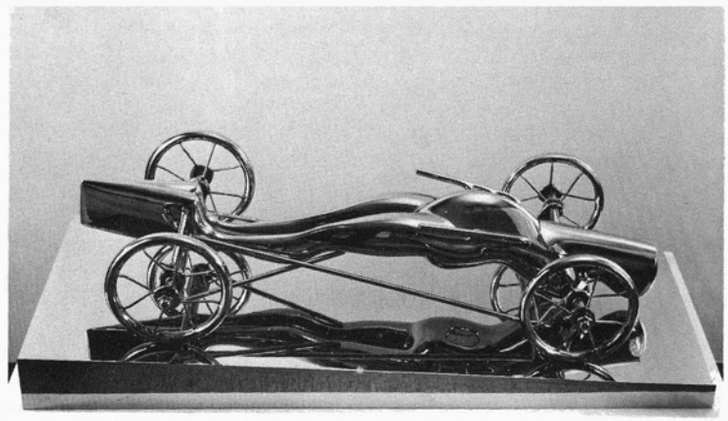

Fig. 8. Ernest Trova, Study: Falling Man (Car Man), 1968. *Nickel-plated bronze, 8 x 12¼ x 31½". Courtesy The Pace Gallery.*

their standardized physical attributes and bearing. They are multiples of a basic motive, characterized by slender legs supporting a misshapen torso, its narrow shoulders, sunken chest, and distended abdomen aligned in a swayback posture. The lack of arms, facial features, and sexual designation enhances the uniform figure with an anonymity, denying it any demonstration of emotion or individuality. This anonymity is further reinforced by the suspension of motion in the figure-motive, which is invariably frozen in a standing or striding attitude. But for their respective arrays of mechanical accessories, the figures are identical.

While the Mercury astronauts inevitably had to have retained some measure of individuality, in most respects, physical, mental, and psychological, they evoked the standardized being depicted by Trova's figure-motive. This high degree of homogeneity among the astronauts was achieved through a stringent selection process and training program. Initially, to be eligible to apply to Project Mercury, the candidates had to fulfill seven basic qualifications. They had to be military men less than 40 years old, no more than 5'11" in height, and in good physical condition. They had to have a Bachelor's degree or the equivalent, be a graduate of test pilot school, and a qualified jet pilot with 1500 hours total flying time. The subsequent testing procedure isolated various aspects of physical, psychological, and mental capabilities and evaluated them exhaustively.[11]

A rigorous two-year training program amplified this basic homogeneity, effecting further modification of behavior and physical functioning. Throughout their training the astronauts stayed in close contact with the progress of the entire Mercury mission, familiarizing themselves with mockups, hardware, and manufacturing processes and developments. They gained a common body of academic knowledge in the new field of space sciences. Repeated flight simulations, instruction in survival techniques, and full dress rehearsals augmented the uniformity and predictability of in-flight responses. They were exposed to weightlessness through parabolic flying (Fig. 12) and underwater simulations; the centrifuge acquainted them with exit and reentry profiles of gravity while the ALFA tested their pilot skills and repeated sessions on the MASTIF (Multiple Axis Space Test Inertia Facility) trained their orientation abilities and conditioned them to control vertigo and nausea caused by disorientation (Fig. 13).[12]

At the end of their training period the astronauts could legitimately expect to succeed in functioning as the interchangeable components implied by their group portrait in full space dress (Fig. 14). During space flight their behavior should be predictable under both normal and emergency conditions. Subjected to high levels of physical and psychological duress, they would allow themselves little indulgence in emotion, intuition, or personal idiosyncrasy. In conforming to a preconceived standard of conduct, human autonomy would bow to the technical demands of the space mission and become its passive, obedient servant.

Characterized by their mass orientation, the inhabitants of El-

Fig. 9. Interior of Project Mercury Space Capsule, Instrument Panel. *Photograph courtesy NASA.*

Fig. 10. Project Mercury Control Room, Cape Canaveral, Florida. *Photograph courtesy NASA.*

lul's Technological Society bear a remarkable resemblance to the image of man visualized by Trova's sculpture. In a civilization monopolized by "technique," Ellul has observed, individuals are to be valued not for their singularity or particular superiority but for their conformity and mediocrity, for their ability "to act only in virtue of their commonest and lowest nature . . ."(pp. 92-93). Individual emotion, intuition, and initiative must be eliminated from the repertoire of human reaction and behavior. Nor can any former political or philosophical ideologies or spiritual beliefs be allowed to linger. Man "must be rendered completely unconscious and mechanized in such a way that he cannot even dream of asserting himself" (p. 399). Employing subtle methods of persuasion, "technique" can quietly infiltrate every individual and overlay physiological, mental, and psychological faculties with technological veneers until they grow so commonplace and so essential to being as to be imperceptible. Therefore "technical anesthesia," as Ellul has termed it, sets in to aid men in acceptance of the technical order and to forget that "the application of a technique designed to liberate men from the machine should end in subjecting them more harshly to it" (p. 412).

Consequently, the human image that appears in Trova's art, that participates in the space program, and that typifies the technical apotheosis is wholly a creature of artifice. Born of an abstract ideal, he is realized in actuality through an artificial transformation dictated by technical needs. Yet the new identity is illusory. Beneath his technological facade the individual remains but a collection of fragments:

Fig. 12. Project Mercury Training Session: Weightlessness. *Photograph courtesy NASA.*

Fig. 13. Project Mercury Training Session: Multiple Axes Space Test Intertia Facility (MASTIF) Trainer. *Photograph courtesy NASA.*

> The purpose of our human techniques is ostensibly to reintegrate and restore the lost unity of the human being. But the unit produced is the abstract unity of the ideal Man; in reality, the concrete application of techniques dissociates man into fragments (pp. 398-399).

As for social interaction, Trova's sculptural images parallel the conditions of American space flight communications and the predictions of Ellul. Human associations are to be restricted to the sphere of technical necessity and conducted through technical intermediaries. An austere climate of isolation characterizes figure interaction in Trova's multiple motive compositions. In *Study: Falling Man (Landscape #1)* of 1964 (Fig. 15), for example, the figures, despite their close proximity, remain oblivious of each other, their behavior indistinguishable from that of a solitary figure-image like *Walking Man* (Fig. 4). The opportunity for social engagement promised by the group composition finds no fulfillment as the images' passive demeanor and standard appearance, devoid of any expressive, communicative devices such as eyes, facial features, arms, or anatomic differentiation, betray neither reason nor initiative to spark exchange. In the wake of such a stultifying lack of social relations, the figure-motive presumably must seek companionship in his technological apparatus (Fig. 7): interaction with technical devices replaces direct human encounters.

Exploiting the most advanced of technological developments, American manned space missions of the 1960s shared the streamlined patterns of socializing conceived by Trova's sculptural inferences on technology. Successful technical functioning has demanded that the astronauts' attention be concentrated upon their crafts' instrument panels and operations, thereby minimizing casual, spontaneous, and non-technical conversations with either fellow astronauts or ground crews. Alan Shepard's initial comments after lift-off on America's first suborbital flight focused on the mechanical performance of his craft: "Ahh, Roger; lift-off and the clock is started. . . . Yes sir, read you loud and clear. This is Freedom 7. The fuel is go; 1.2 g; cabin at 14 psi; oxygen is go . . . Freedom 7 is still go."[13] Likewise, whether the daily conversation among NASA technicians or radio transmissions between Mission Control and orbiting astronauts, the language of the American man-in-space program has been pared down to functional essentials, abounding with abstract, abbreviated code patterns: "The whole philosophy of power descent monitoring is that when the Pings [PGNCS] have degraded. . . . The bulk of Delta V is to kill his retrograde component."[14] Technology thus has functioned as the medium of communication, guiding social experiences like individual behavior into efficient, impersonal, and rational channels.

Jacques Ellul has contended that essential to a technical apotheosis is the establishment of a technically derived "mass society" to accommodate "mass man." This society would not spring up spontaneously from the distinctive characters of its members but would develop out of objective technical calculation. Acting as the unifying bond among people, "technique" could at the same time keep them sufficiently detached so as not to disturb their efficient technical functioning. Insightful for the absence of social exchange noteworthy in Trova's multiple-figure compositions, Ellul's analysis explains that "technique" could provide its human expediters with a "common reality" which would reduce the need for direct communication: "All of those who follow the same technique are bound together in a tacit fraternity and all of them take the same attitude toward reality. There is no need for them to converse together or to understand one another" (p. 131).

Fig. 11. Ernest Trova, F.B. #26: Study: Falling Man (Figure Walking), 1964. *Bronze, 13".* *Photograph Neil Sauer. Courtesy The Pace Gallery.*

Ellul also has argued that technological manipulation would succeed in alienating man from the environment to the same degree that its social revisions would estrange him from his fellow man. Because artificiality and rationalism are central to its being, "technique" could not rest until it had subjected man's habitation to synthetic restructuring, until nothing of the natural remained. Moreover, due to the autonomous development of "technique," the arbitrarily evolved environment might not be wholly hospitable to man, and man might have to rely on technological aids to reestablish relations with his new surroundings:

> The new order was meant to be a buffer between man and nature. Unfortunately, it has evolved autonomously in such a way that man has lost all contact with his natural framework and has to do only with the organized technical

intermediary which sustains relations both with the world of life and with the world of brute matter (p. 428).

The hostile conditions encountered by the Mercury astronauts in space provided the opportunity to perfect a technological approximation of the Earth's habitat. In the cabin of the Mercury space capsule the astronauts were confined to a limited space defined by banks of instrument panels, mechanical apparatus, and over 120 controls. To survive in these rarefied conditions, man had to sheathe himself in a technological "environmental cocoon," which ministered to all his biological needs. Consisting of cabin and suit subsystems, the environmental control system for the Mercury series duplicated the Earth's climate, maintaining the proper cabin air, air pressure, temperature, and humidity. The padded contour couch cushioned the astronauts against extremes of gravitational force experienced with acceleration and re-entry (Figs. 9 and 16).[15]

Trova's characterizations of man and his growing technological absorption describe in their landscape situations an environment as artificial and sterile as that projected by Jacques Ellul. The same precision and standardization that unify Trova's motives with mechanical silhouettes typify the artist's renditions of "landscapes." In *Study: Falling Man (Venice Landscape)* (Fig. 5), the arbitrary arrangement of clean contours, precise angles, and refined surfaces of the rectangular plane rivals the figures for standardized sleekness and generalized anonymity. The integration of "landscape" details with motive elements also bespeaks a contrived combination. Retaining pedestal bases, the three figure-motives of *Venice Landscape* appear to have been imposed upon the plane in their present locations. The figures' compact, cubical masses are rigorously aligned with the direction each faces; their deliberate placement, in one corner and at the midpoints of two edges of the field respectively, alternates with geometricized units of topographical features to create a balanced, disciplined composition.

On the surface the technological brand appears to bind the setting and figure as intimately as had nature originally. To the contrary, however, the similarity would seem instead to discourage interaction and to distance the two, as Ellul has proposed. The barren plane with its crisp, uncompromising angles offers no distinctive features with which to distract its occupants. The mechanical apparatus borne by the figures both here and in *Study: Falling Man (Landscape #1)* (Fig. 15) indicate further that the environment is more than indifferent to its inhabitants, recalling Ellul's speculation. Judging from the tanklike gear strapped to the backs of two of the figures, the lengths of tubing and mechanical equipment affixed to the chests of other figures, and the stationary mechanical source into which one lone figure is plugged, the environment can only be tolerated with the aid of technological adaptors.

Confronting an issue of universal import, Trova's Falling Man series of the mid to late 1960s records the artist's sensitive impressions of twentieth-century man and his technologically preoccupied civilization as Trova has personally experienced them.

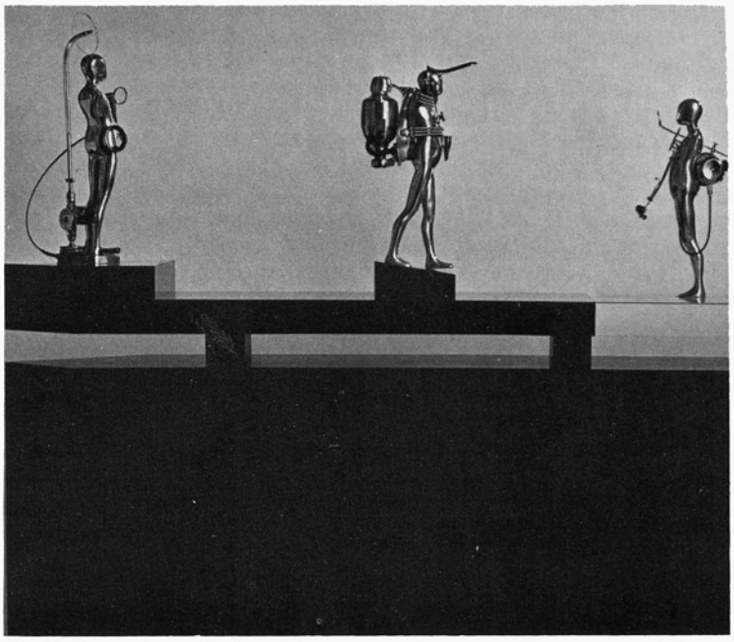

Fig. 15. Ernest Trova, Study: Falling Man (Landscape #1) 1964. *Aluminum, 48". Photograph Neil Sauer. Courtesy The Pace Gallery.*

Neither a deliberate attempt to intellectualize nor to criticize, Trova's sculpture does not equip its viewers with easy solutions. At the same time that the precious metallic surfaces and sensuous motive silhouette glamorize the technological reference with an eye-catching cosmetic veil, the imagery does not shirk in its penetrating, if detached, account of the radical modification of man and his environment which a technological society entails. Thereby dramatizing the dilemma posed by the influx of technology, Trova's art provokes debate on the merits of technological transformation and urges its audience to cultivate an alerted social consciousness.

Fig. 14. Seven Original Project Mercury Astronauts in full space gear. *Photograph courtesy NASA.*

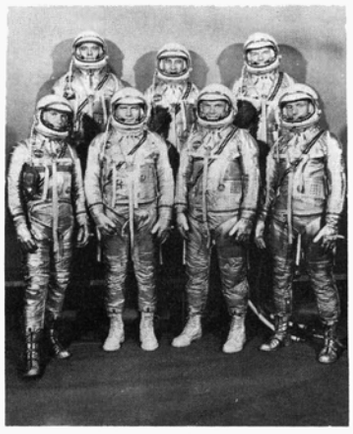

Fig. 16. Project Mercury Astronaut John Glenn en route to spacecraft, 1961. *Photograph courtesy NASA.*

1. The Famous Barr Department Store of St. Louis, in late 1963, offered Trova a commission to create art works for the city's bicentennial celebration. Trova has claimed that he already had envisioned and started a project of "mechanistic assemblages" based on his figure-motive and that the commission merely served to expedite the project, which he had estimated would otherwise have taken several months to complete. With a crew of the store's glaziers, carpenters, plumbers, painters, electricians, and display designers and the entire stock of the store at his hands, Trova worked in the store warehouse through the spring and summer of 1964 to produce 29 objects in total, including the first of his freestanding cast and plated metal figures.
2. The distinction between the terms *machine, mechanical,* and *technology* and *technological* should be noted. *Machine* or *mechanical* has a much broader application. Not associated with any particular historical period or origin, these terms refer to concrete objects or assemblages of parts which transmit or modify the application of power, force, or motion in a predetermined manner for a desired purpose. These terms may be and have been allied with *technology* or *technological* in recent times. This latter pair of terms, on the other hand, has specific connotations grounded in historical time and derivation. More abstract, they are related to an organized means of translating knowledge into action and are linked with the development of science and industry and the production of material goods. See the respective entries in *Webster's Third New International Dictionary of the English Language* (Springfield, Mass.: G. & C. Merriam Company, 1966).
3. Quoted in "The Uses of Ingenuity," *Time*, LXXXIX (January 6, 1967), p. 76.
4. Quoted in William F. Woo, "Plight of Modern Man in Terms of Art Symbol," St. Louis *Post-Dispatch*, December 7, 1964, Section D, p. 3.
5. Quoted in "The Uses of Ingenuity," *Time*, January 6, 1967, p. 76.
6. The main source for Trova's philosophical ideas is a personal interview conducted by the artist's assistant James R. Schmidt on March 28, 1967. Most of the ideas are related as indirect statements in his unpublished essay, "Ernest Trova: Portrait of an Individual," and are, it is assumed, based on Schmidt's understanding of the artist's comments. Unless otherwise indicated, all statements by Trova quoted here come from this source.
7. Jacques Ellul, *The Technological Society*, trans. Wilkinson (New York, 1964).
   Consideration of the United States' manned space efforts focuses primarily on Project Mercury, which corresponds in time to the emergence and early stages of Trova's Falling Man series and which may well have inspired the conception of the exclusive figure-motive. This is discussed more fully in Chapter 2 of my thesis "Trova," University of Wisconsin-Madison, 1972, where special attention is accorded to mass-media magazine and newspaper accounts, including the artist's hometown paper, the St. Louis *Post-Dispatch*, with which Trova is most likely to have been familiar.
8. Lloyd S. Swenson, Jr., James M. Grimwood, and Charles C. Alexander, *This New Ocean: a History of Project Mercury*, The NASA Historical Series, Washington, D.C., 1966, pp. 171-174.
9. Quoted in *This New Ocean*, p. 177.
10. "15 Men in Control Room Trace Astronaut on Electronic Boards," St. Louis *Post-Dispatch*, May 5, 1961, Section A, p. 2.
11. *This New Ocean*, pp. 131, 160-162.
12. *This New Ocean*, pp. 235-246, 342-345.
13. Quoted in *This New Ocean*, p. 241.
14. Quoted in Norman Mailer, *Of a Fire on the Moon* (Boston, 1969), p. 12.
15. *This New Ocean*, pp. 245, 95-97, 225-226.