

# The road to Necropolis: technics and death in the philosophy of Lewis Mumford

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## ABSTRACT

The purpose of this article is to explore the close link between technology and death in the philosophical writings of Lewis Mumford. Mumford famously argued that throughout the history of western civilization we find intertwined two competing forms of technics; the democratic biotechnic form and the authoritarian monotechnic form. The former technics were said to be strongly compatible with an organic form of life while the latter were said to be allied to a mechanical power complex. What is perhaps less well known is the extent to which Mumford characterizes the authoritarian technical form as being a technics of death. This article will argue that the connection between death and technics is a key theme in Mumford's philosophy of technology. In addition to elaborating this theme and detailing how it informs Mumford's other positions on the nature of technology, this article will also argue that Mumford's theory of a technics of death bears witness, both implicitly and explicitly, to the influence of Sigmund Freud's theory of the death instinct. Freud's account of the death instinct will be outlined briefly and its influence on Mumford's writings will be explained. Death, in Mumford's technological writings, has a generally negative function and serves to warn humanity of the perilous course that its technological civilization is set upon. However it also has a positive function in that it encourages man to transcend its biological

existence in acts of creativity and purpose. Death, in this positive sense, serves the purpose of life whereas, in the negative sense, it hinders it. The role of death, in both aspects, will be explored and related to Mumford's overall perspective on technics and life. It is argued that Mumford's philosophy of technology cannot be fully understood without an awareness of his views on death and its role in the life of technological society.

*Key words* death instinct, Freud, Lewis Mumford, technology

## INTRODUCTION

Lewis Mumford's philosophy of technology is probably best known for the view that there have existed throughout the history of western civilization two distinct and frequently opposed forms of technology (Mumford, 1967: 235). The first form, biotechnics, is said to be strongly compatible with democratic social forms and with a holistic, organic, life-oriented philosophy. The second form, monotecnics, is said to be strongly compatible with authoritarian social forms and with a mechanical conception of nature.<sup>1</sup> It is less well known that for Mumford these two technical forms represent two different and opposed forces or drives. He states: "Two sets of forces have worked side by side in modern civilisation; and they have likewise operated side by side within science and technics themselves: one negates life, the other affirms it" (Mumford, 1955: 231). Biotechnics represents the forces of life and growth, while monotecnics represents the forces of death and destruction. These two different technical forms have arisen from and correspond to a schism in the human psyche. Thus Mumford presents us with a variety of technological Manicheism with the forces of life and death in permanent conflict both internally, within the individual and social psyche, and externally, within our technological forms.

Mumford's philosophy was heavily influenced by the psychoanalytic theories of Sigmund Freud and his theories of technology are significantly psychologized. Mumford adopted Freud's model of the tripartite psyche, albeit in an adapted form, and utilized it in his philosophy. In particular, Mumford's perspectives on the technics of death are heavily influenced by Freud's later theory of the death instinct. However, this Freudian influence has been generally overlooked by Mumford commentators, usually due to the belief that the theories of Jung had more influence on Mumford's work. While I would not wish to deny that there is a considerable Jungian element to Mumford's writings, I would argue that the Freudian influence is greater and more significant. Mumford used Freudian concepts and terms

self-consciously and did so throughout his writings. He openly admired Freud's theories and repeatedly expressed his belief in their ability to usher in a new era of human self-knowledge. The intellectual milieu in which he grew up and worked was a thoroughly Freudian one (Swier, 2003: under consideration). Though Mumford was notoriously selective in acknowledging and referencing his sources, it is possible to reconstruct his views in such a way that one may see the centrality of Freudian theory in his work. An awareness of this hitherto unappreciated Freudian dimension gives one a new perspective on his work and also reveals novel aspects of his philosophy. In many ways, Freud is the key to grasping Mumford fully.<sup>2</sup>

Mumford contends that Western society's pursuit of a mechanical mode of existence derives from its reverence for the machine. This reverence has led it to resurrect an ancient archetypal form of mechanically modeled society last seen under the ancient Egyptians which, combined with modern technological forces, creates what Mumford terms 'the megamachine', a technological power complex. The megamachine is able to operate due to the shared belief that the machine represents the most perfect form of existence and that the most appropriate form of organization, be it political, social or industrial, is one based on a mechanical model. Disagreeing with Freud's claim that the death instinct is an innate biological drive shared by all humanity, Mumford argues that the psychological symptoms that Freud regarded as evidence for the existence of the death drive are in fact caused by the mechanical mode of existence. Humanity seeks to perfect life in the form of the machine and in doing so makes itself mechanical. And it is this mechanization of humanity that Mumford feels detaches it from its cultural history and reality and leads to its destructive behaviour. Mumford views the destructive manifestation of aggressive energies as being due to the negative effect that the mechanical environment and mindset have on the functioning of the psyche. The frustration of the id energies leads to their eventual discharge in destructive forms. As to the death instinct's drive for an organism's self-annihilation, Mumford ascribes this to the hidden desire to create mechanical life. Such a life would be perfect in every description and modern man's attempt to bring such a mechanical state of perfection into existence has led to the creation of an environment in which humanity is conditioned to conform as much as possible to a machine-like state of being. It is such a state that leads to the deformation of the id and the very fact of its desirability indicates the organism's desire for death.

Mumford argues that the human organism requires very different conditions for its full development. The pursuit of mechanical perfection has led to the creation of a deathly state inimical to life. In trying to escape death mankind brings ever closer its own, either through an act of total destruction, such as total nuclear war, or by progressive dehumanization in a mechanical state in which humans come ever closer to actualizing behaviourist man: an

input-output, stimulus-response machine. Death, Mumford argues, cannot be escaped. Indeed it is humanity's very awareness of its impending death that compels it to transcend itself in acts of creativity and self-development (Mumford, 1944: 3). Death then is essential for the realization of what it is to be truly human and alive. Death, Mumford also argues, is the eventual end of all cultures, but he adds that this cultural death is also a healthy, necessary part of existence. The death of one culture, and its symbolic decomposition, frees the building blocks necessary for the construction of a new culture. The symbolic life of a culture has an existence beyond that of the culture that created it. Finally Mumford sketches an alternative means for humanity to exist beyond death, albeit in a way that furthers human existence and the cause of life. He offers an alternative to the mechanical model of immortal perfection. Through the symbols that it creates, humanity can create a symbolic existence after death in the symbolic life of a culture. Thus this contribution also furthers the life of both the present culture and successive cultures. Its effects are not purely mental as, given Mumford's model of the dialectical relationship between the mental and the material, the ideas of a culture leave physical traces in the material world and vice versa.<sup>3</sup>

### FREUD AND THE DEATH INSTINCT

Freudian psychoanalytic theories considerably influence Mumford's account of the psychic life of humanity. Mumford felt that in modern scientific/technological society a division had opened between the study of the subjective and objective aspects of human existence, with the former neglected. Mumford viewed psychoanalysis as a tool by which we might bring the precision and clarity of the natural sciences to bear on the study of the human condition and mend this division.

Mumford adopts Freud's tripartite model of the psyche which consists of the ego, the id and the super-ego. The id is the aspect of the human psyche that bears the imprint of humanity's evolutionary heritage. It is closest to the Darwinian instinct of the animals, the urge to reproduce. This urge Freud terms the pleasure principle. The ego on the other hand must mediate between the demands of the id and the necessities of the environment in order to preserve the organism. Freud terms this self-preservative urge of the ego the reality principle. It does not abandon the pursuit of pleasure, but it does often require its postponement (Freud, 1955: 10). The super-ego, or ego-ideal, acts as a form of moral censor. While Freud portrays the super-ego as authoritarian and punitive, Mumford prefers to characterize it as nurturing, providing an aspirational model for the ego to attempt to live up to (Mumford, 1944: 424).

In his later works Sigmund Freud moved beyond the 'libido theory' with

which he had previously been preoccupied and turned his attention to the question of human destructiveness. By exploring the psychic phenomena of repetition compulsion Freud argued that he had uncovered a death instinct in the human psyche. This instinct stands in opposition to the other human instinct, that of Eros. Freud argued that both the psychic drives are essentially conservative. That is to say, both drives seek to restore a previous state of existence. In the case of the death drive, it seeks to return an organism to the inorganic state which preceded the development of organic life. Hence it is a drive towards a state of death. Eros, on the other hand, consists of the sexual urges of the id and the self-preservative urges of the ego. It 'operates from the beginning of life and appears as a "life instinct" in opposition to the "death instinct"' (Freud, 1955: 61). Eros seeks to bind all living things into greater and greater unities.<sup>4</sup> The death instinct seeks to dissolve all such ties. The motor for both these drives is the same. Freud operates on what Erich Fromm terms a 'mechanistic-hydraulic' model (Fromm, 1974: 38).<sup>5</sup> The drives bring about an increase of tension within an organism, causing displeasure. The organism then seeks to find a way to vent these energies, reducing the tension. In the case of the death drive, it seeks ultimately a state in which the organism is free from all such tensions, a state of self-annihilation. Eros, in opposition, seeks to prolong and perpetuate life. To this end it redirects the energies of the death instinct from the internal, where they threaten to destroy the organism, to the external, where it can vent its destructive forces on others (Freud, 1964: 118–19). Thus humanity is placed in a tragic situation whereby it must either destroy itself or destroy others.

Freud's death instinct has two main characteristics. First, there is the urge for self-annihilation and the cessation of all tension and, second, destructive aggression directed either against oneself or another. Destruction is said to arise from the physical manifestation of the death drive.<sup>6</sup> However, as Fromm has pointed out, this position is theoretically inconsistent (Fromm, 1974: 598–9). It is not clear why the urge of an organism to reduce all tension to a level at which it ceases to be present should be thought to be responsible for the manifestation of destructive energies. Why should reduction of excitation be equivalent to acts of destruction? Fromm suggests that Freud is in fact dealing with two separate psychic phenomena: the nirvana principle, whereby an organism seeks to achieve a state beyond all striving, and the destructive urge.

Mumford's version of the id retains its role as in earlier Freudian theory as the sole psychic motive force. The libido is still described as a largely sexual drive but in Mumford's treatment this drive is taken to contain such higher sentiments as love, and desire for creation and self-expression. Thus the libido, for Mumford, in and of itself is a relatively benign force for life, 'the bearer of primal energies and vitalities' (Mumford, 1944: 424). As such it is far closer to Jung's characterization of the libido as 'vital energy' (Jung, 1998:

51). The key reason for this deviation from Freud's depiction of the id appears to be Mumford's unhappiness with what he saw as Freud's overly Darwinian characterization of the mind. An example of this would be the portrayal of the id as an essentially selfish drive, seeking only its own gratification in the lowest possible animal sense, and the portrayal of the super-ego as essentially repressive, constantly striving to curb and repress the libido. Rejecting the Malthus-inspired Darwinian notion that the natural state of existence is solely one of strife, Mumford looks to the work of Kropotkin to provide a fuller account of the operations of nature, one based on co-operation and mutual aid (Mumford, 1938: 302; 1944: 332). Thus, Mumford's depiction of the part of the psyche that represents humanity's animal heritage is far more charitable than Freud's characterization.

However, Mumford's conception of the unconscious mind is not entirely benevolent. The unconscious, in addition to being a source of creativity, is also said to be the repository of humanity's irrational urges and impulses. Mumford writes that 'before man had created a firm over-layer of culture, through ritual and language, he was dangerously open to the random, often destructive and suicidal promptings of his own unconscious' (Mumford, 1971: 369). The higher mind, through the ideals of the super-ego and the symbolic life of the culture, directs the energies of the unconscious into healthy, constructive channels. However, the perilous aspect of the unconscious still remains latent if not active within the human psyche.

Mumford also acknowledges the existence of the death instinct although here too he subjects Freud's concept to considerable modification. For Freud the death instinct is one of humanity's primal drives, a biological given, about which mankind can do nothing other than seek ways to keep it from its ultimate end for as long as possible. Thus for Freud the entire evolution of culture 'must present the struggle between Eros and Death, between the instinct of life and the instinct of destruction, as it works itself out in the human species' (Freud, 1964: 122). The death instinct has operated from the very beginnings of humanity and continues to do so. Mumford, while recognizing the death instinct, refuses to recognize either its biological origins or its existence throughout history. 'It is a historic phenomenon, time-conditioned, place-conditioned, culture-conditioned' (Mumford, 1938: 271). Although Mumford never explicitly states so, he does operate with an understanding that Freud's concept of the death drive contains two distinct impulses.

## TECHNICS AND DESTRUCTIVENESS

From his studies of the development of the city from the Neolithic period to the modern day, Mumford concludes that 'each historic civilization

. . . begins with a living urban core, the polis, and ends in a common graveyard of dust and bones, a Necropolis, or city of the dead' (Mumford, 1961: 53). The cities of a dying civilization pass through several phases on their way to Necropolis. In his account of the decline of Rome Mumford argues that the city passed from being a vital polis to a Parasitopolis, a state in which the inhabitants became increasingly dependent on others for the fulfillment of vital functions and the provision of stimuli. From a Parasitopolis, it then became a Pathopolis, from a city of parasites to a city of diseases. Mumford uses the term disease here not to indicate a physical illness but as a reflection of the moral and psychic state of the city. Faced with the uncontrolled growth of the city and its dependencies, the inhabitants' 'vices, perversions, corruptions, parasitisms, and lapses of function increase disproportionately' (Mumford, 1971: plate 24). From this state it is a short distance to the Necropolis, the death of the civilization and the dissolution or destruction of the city.

Mumford feels that the story of Rome's decline holds important lessons for modern civilization. 'Its history presents a series of classic danger signals to warn one when life is moving in the wrong direction' (Mumford, 1961: 242). He views the contemporary technological society and its cities to be treading the same course of self-destruction that Rome once followed. Roman civilization ended because it became a container for what Mumford terms 'negative life' and he warns that the contemporary metropolis is likewise 'rank with forms of *negative vitality*' (Mumford, 1938: 271). His diagnosis of the ills of modern society is intended to enable us to prevent history from repeating itself for, given the considerable powers of modern technology, Mumford fears that the death of contemporary civilization might well coincide with the end of all human life.

For Mumford the myth of the machine is profoundly connected with the manifestation of the death instinct in contemporary Western society. It is pursuit and worship of the machine that has caused these drives for self-annihilation and destruction to appear and it is simultaneously the machine that will satisfy these urges and realize this death wish. It is the idea of the machine that will bring about the physical reality of destruction. In Mumford's account of the death-fixated and death-seeking nature of modern man we see the parallels between his own theories and those of Freud. However, while Mumford recognizes the similarities between the phenomena of the death instinct that Freud describes and the phenomena of modern society that Mumford seeks to diagnose, his account of the death drive, its origins, nature and effects is significantly different from the Freudian account. Most importantly Mumford, with Fromm, recognizes the presence of two distinct impulses within Freud's concept of the death instinct, those of destructiveness and self-annihilation. Mumford appreciates that these phenomena are closely related to one another but recognizes them as distinct.

Modern society for Mumford is under the sway of a capitalist-technological power complex which he terms 'the megamachine'. This megamachine was propagated by and is maintained by the myth of the machine, the belief that the machine provides the best possible model for the conduct of life in all its forms.<sup>7</sup> The machine was originally brought into being through its adoption by the rising capitalist class who believed that furthering the range of the machine's influence would increase their own power and profit. This created a modern society in which the capitalist elite extends the megamachine's power in the belief that by furthering its interests the capitalists simultaneously serve their own.<sup>8</sup>

Under this 'pecuniary-power complex' the majority of society is conditioned to depend upon the machine for the fulfillment of all their needs. In reality this means that society is conditioned to 'need' only those things that may be provided for by the machine. All other non-commodifiable needs are denigrated and discarded in favour of the system's superior output. Modern man thus enters a state of complete dependency on the megamachine, while at the same time ever striving to extend its sphere of influence. This is the state which Mumford terms Parasitopolis. Modern society, in effect, becomes parasitic on the megamachine. A further effect of the Myth of the Machine is that society comes to believe that the machine is the most effective, indeed the only, way in which all desires can be satisfied. However, argues Mumford, this state of total dependence on the machine is one unsuited to the survival of organic life. The machine threatens to remove all biological need from society. Rather than struggle to survive or to provide meaning for existence, modern man has now only one compulsion – to consume all that the machine can produce. Humanity is threatened with suffocation in a surfeit of goods.

Under these conditions the psyche begins to suffer and disintegrate. The super-ego, which previously provided ideals and models for future action, is now replaced by an utilitarian super-ego that values only the abstract thought that propagates the power of the megamachine. The ego, with no ideal to direct it, is encouraged to dwell only in the moment, to seek satisfaction only in those conditions already in existence. Thus the ego becomes present-fixated and arrested. Finally the id, without a directing ego or a direction to follow, is frustrated. It is directed instead to those forms of pleasure that the megamachine can provide: consumption of mass-produced commodities or entertainments. Even the sexual act is commodified and mass-marketed (Mumford, 1938: 265–6).<sup>9</sup> Ultimately unsatisfied by these conditions the id energies begin to rise and overflow, venting themselves in acts of destructiveness.<sup>10</sup> It is here that society begins to move from Parasitopolis to Patholopolis. It is important to note that the frustration of the id does not arise from obstacles to its gratification. Indeed it is one of Mumford's chief contentions that the society of the modern megalopolis operates under the sign of the pleasure principle (Mumford, 1971: 339). Every need is met

artificially. What frustrates the id is the lack of connection with reality. The pampered state of modern man results in a progressive sense of alienation from the external world. The satisfactions of the id are not those of long-held plans, or oft-frustrated efforts, but those of immediate stimulation of a sensual, purely bodily, nature. It is the gratification of simple stimulus and response. It requires very little activity of the higher consciousness. Thus the frustration produced is born of gluttony and lethargy.

This sense of ennui is key to Mumford's analysis of modern technological society. It is a clear indication of modern society's deathly state that boredom persists and multiplies from the lower levels of society to the ruling elite (Mumford, 1971: 342). This is more than a simple sense of fatigue, it is an existential state of anguish. Modern man's creative faculties, the key to man's historical development, are left to atrophy through neglect. Their use is not needed under the all-encompassing aegis of the megamachine. Only man's most basic attributes are required, the id and the mechanical functions of the body. Man becomes little more than an id-bearing automaton (Mumford, 1952: 150; 1971: 277-8). It is in this state that the phenomena of Freud's death drive begin to manifest themselves. Faced with this parasitic state of dependency and lifelessness modern humankind seeks to exhibit its own autonomy. It finds this in one of two possible actions, the only two that remain open to it. The first of these is self-annihilation. This forms a last act of protest against the modern condition, a swift end to the wait for death, rather than the progressive living death of modern society. As Mumford puts it, 'the death wish appears as collective impulse: an effort to save life from further defeats, from more unbearable indignities, through suicide' (Mumford, 1938: 271). The second option lies in acts of destruction. Dimly aware of the oppression of the mechanical power complex, the individual lashes out against not just the machine but against all life. It is a state of destructive nihilism. Individuals seek to destroy all things, and ultimately themselves as well. Mumford states that

So vital are the autonomous activities of the organism, so necessary are they for keeping it whole, that any surrender of independence has deep psychological repercussions. Particularly, the infantile feeling of dependence, prolonged into adulthood, awakens self-distrust and self-hatred, which exacts a suicidal desire for revenge . . . To atone for the limitations of a parasitic existence, the parasite himself transposes the values of life, so that all his acts take a negative form. The hatred the parasite feels for himself he projects upon suitable victims and scapegoats, covering them with his own despair, his own self-loathing, his own *desire for death*. (Emphasis added; Mumford, 1961: 228-9)

This too is a protest against the machine, but it too ultimately serves the cause of death.<sup>11</sup>

At this point there may appear to be little to distinguish between Mumford's account of the urge for self-annihilation and destruction and that of Freud. From the above account it would appear to be the case that the death impulse when directed inwards leads to the death of the self, while when directed outwards it leads to the destruction of others, just as Freud argued. However, for Mumford the nirvana principle, the drive for self-annihilation, is present in the outwards manifestation of aggression as well. A further point of difference concerns the origin of the death drive. For Freud this drive is biological in origin and its presence in the human psyche is a simple fact of existence. For Mumford the death drive is the product of singular environmental conditions. Both he and Freud agree on the nature of the phenomena under this description, but their disagreeing over its cause allows Mumford to differ about methods for its alleviation. For Freud the condition is inescapable. For Mumford, the dissipation of the death drive depends on a change of the environment, both material and psychic.

Lest it be thought that Mumford gives a radically environmental account of destructiveness, he does locate its origins in the human psyche, but as a potential rather than an active force (Mumford, 1971: 369). However, the manifestations of destructiveness and suicide that we have witnessed so far are responses to the modern condition, particularly to conditions within the megalopolis. Without an appropriate ideal with which to give meaning to its existence or a cultural field in which to find purpose, as the megamachine has no use for them, the human psyche is undirected and has no point by which it can orient itself. The unconscious is left in an unchanneled state. Consequently, Mumford argued, 'the unconscious has now resumed its early dominion over man' thereby 'leaving man more exposed than ever to his own disordered subjectivity' (Mumford, 1971: 370). By focusing on environmental factors for the cause of these acts Mumford encourages us to look at the origins of the environment itself.<sup>12</sup> As we have seen, Mumford views the entire society as tending towards a state of death and this cannot have been caused by the environmental conditions that led to the acts of destruction discussed above. The question then remains: what is the cause of modern technological society's deathly trend?

The answer to this question lies in humanity's relations to the machine. Since its utility in elevating the capitalist class to their condition of precedence and maintaining them in their state, the machine has been viewed as a totem. Parasitic upon it, the capitalist class identify themselves with it.<sup>13</sup> Thus its expansion coincides with their continued prosperity. In addition to being viewed as the source of all power and profit the machine is also held to be superior in form to all organic life. It is for this reason that megatechnical society attempts to substitute artificial forms for all organic forms. Mumford tellingly describes the relation between science and the image of the machine as follows. The machine is revered as a perfect form. Its development and

propagation allow the scientist, and by ownership the ruling elite, the belief that they can create life (Mumford, 1971: 125).<sup>14</sup> And not only life but a perfect form of life.<sup>15</sup> Being perfectly known, the machine is also an unproblematic extension of their power. Unlike human servants it suffers not from fatigue, nor is it ever willfully unruly.

The very success of the myth of the machine, by which the rest of society accepts the system that sustains them, depends on this belief in the machine's perfect nature. Being a perfect form, other forms, be they industrial or social, which base themselves on a mechanical model are also approaching perfection. Being a perfect form of life, it is also the form upon which all forms of life should be modeled. It is for this reason that in modern reckoning humans are considered but moving constructs of skeleton and musculature, in consumption but input-output machines. Mumford states that: 'in this disordered environment only machines retain some of the attributes of life, while humans are progressively reduced to a bundle of reflexes, without self-starting impulses or autonomous goals' (Mumford, 1961: 548). Mumford argues that it is because of this restructuring of life on mechanical lines that megatechnical society is so deathly. It is because of the treatment of humanity as if it was nothing more than an id-automaton that it seeks to destroy itself.

And yet, what lies behind this worship of the machine? Where does the appeal of mechanical life and a mechanical state lie? It is here, Mumford suggests, at the root of the modern malaise, that we see again the presence of death. In the reducing of mind to only those aspects of use to the megamachine, all aspects of culture and history and tradition were discarded. Only science and technology were to be embraced and with them the allure of the future, the novel. The megamachine is an anti-historical force. Only the immediate has value. The beauty of the mechanical state is its immutability. It continues to function in the same fashion eternally. It is undying. Thus in the propagation of the megatechnical state and its nerve center, the megalopolis, we find the quest for immortality. The machine state is free from flux and change. It is eternal. By ushering in such a state, the ruling elite shares in the greater glory of the megamachine. In its immortality they vicariously achieve immortality themselves.

And yet, we may delve further. What kind of immortality is this? We see the attempt to realize an environment in which all remain in perpetuity in a state free from change in which all needs are met and all striving and tension have ceased. What is this utopian state but the inorganic? This striving for immortality through the machine, to escape from flux, is but the attempt to achieve living death.<sup>16</sup> And the materialization of this vision creates a society that comes ever closer to realizing such a state.<sup>17</sup> It is for this reason that Mumford writes that the "city of the future" is one leveled down to the lowest possibility of active, autonomous, fully sentient life: just so much as will conform to the requirements of the machine. As we shall see, this would

only carry the present forces at work . . . to their ultimate goal – total human annihilation’ (Mumford, 1961: 527). Its citizens, smothered by excess, petrify into a mindless state. Or else, they seek to destroy themselves and others in acts of violence and aggression made all the more lethal and potentially terminal through the proliferation of technics of mass destruction.<sup>18</sup>

### TRANSIENCE AND TRANSCENDENCE

Rejecting the modern, death-directed trends of technological society Mumford offers a more humane model of existence. On Mumford’s model, man is still very much a part of nature and with other organisms shares certain qualities that Mumford feels to be common to all living things.<sup>19</sup> Along with the more commonly ascribed drives to reproduce, for nutrition, etc., Mumford adds the urge for self-development and self-growth. All organisms, for Mumford, have a ‘teleological, goal-seeking, self-actualising nature’ (Mumford, 1961: 184). Mumford offers a biological model of what he terms ‘emergent evolution’ (Mumford, 1961: 29). On this account the addition of new qualities to a pre-existing organic structure results not simply in an expansion in size of the structure but also in the emergence of a new structure whose defining qualities would not have been predictable prior to the addition of the new element. With the majority of organisms this development is purely material; that is to say, physical. However, with humanity Mumford feels that a unique emergent property is present, that of mind. Through mind humanity is able to express its dynamic inner life in symbols and by means of this symbolic level of existence, is able to communicate with and influence other humans. Humanity constructs a second level of existence, a symbolic milieu.<sup>20</sup> Through this medium humankind is able to externalize the products of its mind and materialize it in physical form through the construction of artifacts or alterations of the physical environment. And in turn men and women are able to internalize their perceptions of the environment and give them meaning. It is this symbolic milieu, which Mumford terms the *idolum*, that enables humanity to make sense of the environment, to order it, and also to give purpose and value to existence (Mumford, 1944: 8).

It is at the level of mind that Mumford feels humanity is best capable of realizing its potential properties. What holds at the physical level with other organisms, for Mumford holds true at the symbolic, psychic level with humanity. The addition of new psychic elements enables humanity to transcend its present state and transform it. This is self-directed growth, rather than an alteration in human behaviour necessitated by a change in the physical environment or the economic structure. Through some new idea, the conceptualization of a new value or form, man adds a new factor to the existing social and psychic/symbolic structure. The materialization of this

novelty brings about its reaction with the pre-existing elements of the society, which in turn leads to a new structure, frequently of a type inconceivable before the transformation.<sup>21</sup> Mumford states that the development of mind 'has supplemented natural selection by a cultural selection that has not only modified man's own environment and his way of life, but has brought out new potentialities in his own nature' (Mumford, 1971: 202–3). Emergent evolution takes place at the level of the mind, as well as that of the body, through an act of creativity.<sup>22</sup>

It is here that Mumford offers an understanding of life and death that is alternative to that offered by the megamachine. Even in humanity's acts of destruction and self-destruction Mumford still sees the stirring of life. In suicide or aggression humanity, in a distorted way, seeks to affirm its own autonomy or reawaken a sense of its own existence (Mumford, 1971: 360). In particular in its death-embracing quest for immortality Mumford sees for him the commendable yearning for transcendence, albeit one that has been misdirected into the service of anti-life. It is within the life of the mind that Mumford urges us to seek immortality. For Mumford the symbolic milieu of the idolum is super-organic. It has an existence beyond its physical manifestations in works of art or architecture. It stands above the purely material necessities of existence and directs humanity to think beyond such mortal preoccupations. For Mumford, to ponder life, its meaning or direction, or one's place in it, is to rise above the purely animal level of existence and to develop oneself. To crystallize these thoughts and to make them manifest in action or word is to alter society and raise it from a lower to a higher state of development. The individuation of humanity and the perfection of human society takes place simultaneously. Mumford states that 'man's true life consists not alone in the work activities that directly sustain him, but in the symbolic activities which give significance both to the processes of work and their ultimate products and consummations . . . it is through the effort to achieve meaning, form, and value that the potentialities of man are realized, and his actual life in turn is raised to a higher potential' (Mumford, 1944: 9–10). The symbolic milieu is thus essential to the progress of humanity. And it is in contributing to this milieu that humanity may achieve a lasting existence beyond death. As Mumford puts it, 'when the organism dies, the brain dies, too . . . but the mind reproduces itself by transmitting its symbols' (Mumford, 1967: 28).

Individual cultures may rise and fall, their cities and monuments reduced to ashes, but their symbolic constructions have an endurance beyond these physical limitations. Mumford states: 'from the mountains of rubble, slag, rubbish, bones, dust, excrement that bear witness to the works and days of each passing generation, a few milligrams of mind-energy have in the course of history been extracted . . . [and] that fraction, passing from mind to mind, has the property of irradiating the rest of existence with meaning and value'

(Mumford, 1971: 415). Indeed a relatively neglected idea may grow rather than decline after the death of its originator till it is the dominant idea of future cultures. Mumford further argues that 'there is a latent energy in the mind that in rare moments by-passes . . . organic limitations and ignores or defies the ultimate terminus of death: this reveals itself as the impulse to transcendence' (Mumford, 1971: 418). To draw upon one's cultural heritage, to synthesize its symbols and create, this is to transcend the limitations of the organic. To share this idea with others, present or future, is to transcend death.<sup>23</sup>

The physical death of an organism also has its part to play in life according to Mumford. Organic life, on his account, is necessarily one of flux as well as stability. Life is depicted as a pendulum that swings between dissolution and construction. As Mumford puts it, 'organic activities are bipolar, both positive and negative, active and passive, building up and tearing down, accumulating and selecting, in short, growing, reproducing, and dying' (Mumford, 1971: 202). The awareness of death is necessary to drive humanity to live, to strive to transcend the organic. It is responsible for all the acts of creation and growth that have resulted in the construction of culture and society. Without death, humanity would have no impetus to make its mark. It would rest content with the basic satisfaction of its animal needs rather than strive to give meaning to its wealth of experience. A life of stasis, such as that which the megamachine promises, is one of atrophy. Mumford claims that 'in his resistance to death man has often achieved a maximum assertion of life' (Mumford, 1944: 3). Death compels humanity to live and to grow. The obstacles and frustrations of the changeable world, those which a life parasitic on the megamachine would shield us from, deepen its understanding and further this growth (Mumford, 1955: 255). In short, humanity needs the tension and struggle of the reality principle, rather than the easy satisfactions of the mechanical pleasure principle.

In striving for stasis humanity also forgets that entropy has as much a part to play in organic life as preservation. Moving from the level of the individual to that of societal, Mumford points out that it is part of the nature of societies as well as individual organisms to perish. However, unlike the material products of a culture, the symbolic products do not perish with its passing. They have been brought into a synthesis by a society, but after its passing the synthesis dissolves and the individual elements are freed. In this way they present themselves as building blocks for a future society to utilize and to reconstruct according to its will as it too seeks to give meaning to existence. Mumford states that the 'symbolic debris of past cultures forms a rich compost for the mind' (Mumford, 1971: 426). Furthermore, it is one of the guarantees of humanity's essential freedom that unlike other animals, humanity is not genetically locked to a particular pattern of behaviour. Each human is potentially born free from the structures and mores that may have

restricted the growth of previous generations (Mumford, 1971: 292). In effect the very transience of societies forces humanity to recall and make use of its creative freedom. Thus from the individual to the societal, from the organic to the super-organic, death and dissolution play an essential part in life and growth.<sup>24</sup> Mumford argues that to prevent the former, as the megatechnical society threatens to, is to lose the possibility of the latter and, ironically, to lose life rather than preserve it.

## CONCLUSION

Mumford's philosophy of technology is preoccupied with death. His analysis of modern technology and the type of society that produces it is motivated by his concern that it furthers the cause of death, both psychic and biological. By outlining the attributes and characteristics that define the contemporary megamachine, and by highlighting the effects of modern technological society and its mechanizing tendencies on the human spirit, Mumford hopes to alert humanity to its peril. Mumford argues that Western society is in danger of destroying itself. Technics, which for Mumford has a key part to play in human affairs, has not been adequately assimilated into human life and made to serve the cause of life and growth. Instead of forming part of the human experience it has been co-opted by the forces of capitalism and used as a deity, with all society to be reshaped in its image. It is now the model for all human experience, and all experiences that do not serve the ends of the machine are denigrated and devalued. Thus life is made to serve technics, rather than technics to serve life. Distorted in this way, the human psyche twists in upon itself and sickens. Rather than seek to advance life, humanity now seeks its own destruction. Mumford thus confirms the existence of Freud's death wish but considerably modifies its origins. This death wish manifests itself in the habitations that humanity constructs and in the technics of mass destruction that it develops. Even more subtly, the very urge to use the machine as a model for life displays a hidden desire for immortality, in the mistaken belief that a state of permanent stasis is a desirable condition rather than a living death.

By emphasizing the creative powers of the mind and its symbolic legacy through history Mumford seeks to wean contemporary society from its reverence for mechanical models and to replace it with a more organically based conception of existence. Such a model has flux and growth at its very core, as opposed to the static, linear ideal of the megatechnical state. Mumford argues that the very transience and changeability of life is essential to human development. Without the tension generated by the intractability of reality or occasional misfortune, humanity has no compulsion to struggle to transcend its material circumstances and give meaning to existence. One

must 'accept finiteness, limitation, incompleteness, uncertainty, and eventual death as necessary attributes of life – and more than this, as the condition for achieving wholeness, autonomy, and creativity' (Mumford, 1971: 394). Mumford cannot offer the illusory hope of mechanical immortality but he does suggest a way of life in which death is given significance and purpose. By signaling the importance of humanity's symbolic life and its considerable potential as a resource for spiritual and material renewal Mumford offers humanity a tool with which it can construct a new society with a new form of technics based on ideals other than those held out by the modern megamachine.<sup>25</sup> And in using its historical past to construct these new ideals, Mumford argues, humanity can ensure a more meaningful, live-serving form of immortality by adding to the symbolic pool. Thus Mumford encourages us to turn away from a way of life which serves death, and to construct one in which death serves life.

#### NOTES

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- 1 David Macauley attributes this dichotomy between authoritarian and democratic forms of technics to the influence of Kropotkin (Macauley, 1996: 23).
- 2 I am in agreement with Zuckerman's argument that Mumford's 'turn to the mind' takes place largely after the publication in 1934 of his *Technics and Civilization* (Zuckerman, 1990).
- 3 For Mumford ideas have just as much power to alter the economic and social structure of a society, and with them the technological and material products of that society, as the economic and social structure has to alter the realm of ideas (Mumford, 1938: 262). Thus Mumford categorically rejects the Marxist position that the technological mode of production creates the dominant ideologies of the period, which in turn serves to justify those relations of production already in existence. Such a view amounts to the assertion that ideological forms are essentially epiphenomenal with regards to the social organization of a technological culture. Instead Mumford argues that it is the ideological that has primacy over the technological. The mechanical ideology was both historically and necessarily prior to the development of modern technics. 'Men had become mechanical before they perfected complicated machines to express their new bent and interest' (Mumford, 1934: 3). It is the ideology that is the source of the technological complex's socio-political power.
- 4 It is interesting to note the similarities between the characteristics of Freud's Eros and Mumford's principle of organic life. For Mumford all life, not just human, tends towards greater unities. He writes that 'life begins, even in the lowest organisms, in physical accretion and ecological association, and develops in the

highest organisms into mutual support, loving reproduction, and hopeful renewal' (Mumford, 1971: 317). However, whereas for Freud Eros, being a conservative drive, strives to return to an earlier state, Mumford argues that the urge to synthesis, being connected to growth, is future-directed and may well seek a state of affairs that has not yet existed.

- 5 It is ironic that Mumford, whose philosophy is founded upon organic models and metaphors, bases his psychological views on what is essentially, despite his modifications, a mechanical model of mind.
- 6 Freud writes that 'a portion of the [death] instinct is diverted towards the external world and comes to light as an instinct of aggressiveness and destructiveness' (Freud, 1964: 119).
- 7 Robert Casillo describes the 'megamachine' of modern technology as 'an interlocking system of machines, techniques, bureaucrats, armies, scientific and administrative elites'. In short it is 'made up of inorganic and human components' (Casillo, 1992: 114). To this list we may add an ideological component that functions in much the same way that Kai Nielsen identifies, in that it 'inhibits an understanding of our actual situation and obscures from us the possibilities of altering that situation in a more just and human direction, such that we humans could achieve a greater satisfaction of needs and a fuller realization of our potentialities as human beings' (Nielsen, 1978: 133).
- 8 Mumford clearly rejects the view that technology is in any way autonomous. Rather, he argues that it is at all times maintained and propagated both by the efforts of a capitalist elite and by a popular acquiescence that amounts to tacit consent.
- 9 Lasch discusses in more detail Mumford's views on the 'mechanization' of sexuality (Lasch, 1980: 24–5).
- 10 Mumford writes: 'a rational super-ego, exclusively preoccupied with its own order, denies the function of the id and cuts itself off from the vitality that should serve it. Carried far enough that repression must lead to the destruction of the personality, or to an explosive discharge of id elements. Instead of sublimating barbarism civilization then produces a more terrible variety of barbarism, for to the animal energies in which all men share it adds those powerful technical and social facilities which civilization has itself created' (Mumford, 1944: 366).
- 11 Mumford appears to side with Marcuse in viewing the death drive as idealistic in that, rather than rejecting the reality principle and seeking a return to a previous inorganic state, it seeks to transcend the present and achieve an alternative, future mode of existence (Marcuse, 1998: 29). In this way the death drive, this result of distorted life, indicates what Mumford views as being humanity's essential self-transcending nature, and its thirst for an appropriate ideal to follow.
- 12 The term 'environment' is here taken to refer to the social environment.
- 13 Mumford asserts that the megamachine is controlled by a capitalist elite. It is said to be a 'minority manipulated majority manipulating device' (Mumford, 1971: 214). Thus though all may be oppressed by the myth of the machine, not all are oppressed equally.
- 14 There are obvious similarities here between the belief in the mechanical as a perfect form of life and the concept of 'womb envy'. By creating mechanical substitutes

- for life, modern science attempts to appropriate to itself, and improve upon, the female ability to conceive and bear children.
- 15 Mumford writes that 'the ultimate result of . . . [the] mechanistic doctrine was to raise the machine to a higher status than any organism, or at best to admit grudgingly that higher organisms were supermachines. Thus a set of metaphysical abstractions laid the groundwork for a technological civilization, in which the machine in the latest of its many incarnations would become the "Supreme Power", an object of religious adoration and worship' (Mumford, 1971: 70). David Noble's account of the quasi-religious motivations underpinning research into Artificial Intelligence and Life largely supports Mumford's views. Noble states that those proposing and carrying out this research were not aiming simply at the construction of machines capable of replicating human intelligence. Rather their ultimate goal was to create a form of life in its own right which, in addition to surpassing all human intelligence, would also be immortal (Noble, 1997: 143–71).
  - 16 Mumford states that 'the ideal goal for machine production is that of a static perfection, a world of immobile platonic forms' (Mumford, 1952: 83). In short, the aim is a world beyond transience and mutability, and thereby beyond life.
  - 17 The materialization of this idea in the form of technics that serve its ends results in the form of technics that Mumford refers to as mono- or megatechnics.
  - 18 In *The City in History* (1961) Mumford appears to view the threat of nuclear destruction as the greater peril facing humanity. He writes: 'The building up of . . . weapons among the "Nuclear Powers" has given the "death-wish" the status of a fixed national policy, and made a universal extermination camp the ideal terminus of this whole civilization' (Mumford, 1961: 557). However, by *The Pentagon of Power* (1971) he has come to view the danger of death by atrophy as equally imminent. For details of Mumford's views on nuclear weaponry see Mendelsohn (1990).
  - 19 For a detailed account of Mumford's environmental views see Ramachandra Guha (1996).
  - 20 Winner also recognizes this key aspect of Mumford's thought. He writes that for Mumford, 'man is a multifaceted, self-transforming combination of an original biological nature and a "second nature" created over thousands of years' (Winner, 1977: 109).
  - 21 Mumford develops the concept of *materialization* as a counterpart to Arnold Toynbee's concept of *etherialization*. He writes: 'to be socially operative, ideas must be incorporated in institutions and laws, enacted through a daily discipline of the individual life, finally embodied in buildings and works of art that create an effective background for a new drama, and transpose its theme from the dream world where it originated to the world of actuality' (Mumford, 1944: 63). Ideas must be reified in the social sphere, and also in the physical form of technics and the environment that it constructs, to have causal power. Thus transmitted, the symbolic content of these forms may be again etherialized, 'translated progressively into symbols and reorganized in the mind', leading to further novel ideas (Mumford, 1971: 427).
  - 22 Margolis criticizes Mumford's account of the capacities of man, arguing that it is either a form of biological determinism, in that it assigns to humanity a definite function, or that it is vacuous, in that it will be confirmed in all cultural contexts.

Margolis argues that humans are ‘cultural emergents’ and that the cultural aspect of humanity cannot be reduced to the physical. He states: ‘human persons have “no nature”, if by nature we mean that an examination of the physical or biological traits of *Homo sapiens* could reveal . . . the proper or natural norms for the careers of persons taken individually or collectively.’ Consequently, ‘if human persons have no nature, no discoverable normative nature, then, redundantly, there can be no natural norms for the direction of human culture – *a fortiori*, for the direction of human technology’ (Margolis, 1978: 28). Mumford argues the point, with which Margolis agrees, that cultural life is to an extent bounded by the biological constraints that arise from humanity’s biological nature. While Margolis acknowledges that culture and its products arise from human mentality, he seems to think that mentality appears *ex nihilo* as a human attribute, rather than, as Mumford asserts, stemming from humanity’s biological nature. Mumford, drawing on psychoanalytic theory, argues that the human mind, being biological in origin, also bounds human cultural activity. Even as one may ask, as Margolis does, after the biologically necessary conditions for humanity’s continued cultural flourishing, following Mumford we may just as meaningfully inquire into the necessary psychological conditions for humanity’s well-being. Furthermore, in outlining these conditions Mumford does not seek to impose absolute norms on the cultural constitution of future human societies. While he attempts to specify the parameters within which societal construction should take place, he places no limits on the cultural form that such a society may take. It is central to Mumford’s position that as cultures dissolve and coalesce new emergent properties appear. Thus a limitless number of culture varieties is possible within Mumford’s optimal biological and psychological parameters, and with them an equally limitless number of possible technological forms.

- 23 It is in this ability of humanity to transcend and reconstruct its environment, which Mumford terms insurgency, that Mumford sees the means by which the megamachine can be overcome. Humanity may have been conditioned to obey the megatechnical system, but has the capacity to overcome this conditioning and to reconstruct a more humane mode of existence (Miller, 1989: 70). As Zuckerman points out, Mumford draws upon history to support this optimistic assertion. ‘His reconception of the historical record suggests that every epochal transformation of world civilization . . . had its essential sources in altered religious sensitivities rather than in technological revolutions’ (Zuckerman, 1990: 366). The ‘altered religious sensitivities’ mentioned here are best understood, as Zuckerman indicates, as new cultural patterns.
- 24 Technical forms that serve rather than supplant this attempt to draw on humanity’s historic heritage, to transcend present circumstances and reshape them, are those that Mumford refers to as democratic technics or biotechnics.
- 25 Thus we can see that despite his critique of modern technological society Mumford is no technophobe. As Mitcham points out, ‘Mumford is . . . not arguing for a simpleminded rejection of any and all technology. Instead, he seeks to make a reasoned distinction between two kinds of technology, one that is in accord with human nature, and another that is not’ (Mitcham, 1994: 44).

## BIBLIOGRAPHY

- Casillo, R. (1992) 'Lewis Mumford and the Organicist Concept in Social Thought', *The Journal of the History of Ideas* 53: 91–116.
- Freud, S. (1955) 'Beyond the Pleasure Principle', in *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, Volume 18. London: Vintage.
- Freud, S. (1964) 'Civilization and its Discontents', in *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, Volume 21. London: Vintage.
- Fromm, E. (1974) *The Anatomy of Human Destructiveness*. London: Pimlico.
- Guha, R. (1996) 'Lewis Mumford, the Forgotten American Environmentalist: an Essay in Rehabilitation', in D. Macauley (ed.) *Minding Nature*. London: Guilford Press, pp. 209–28.
- Jung, C. G. (1998) *The Essential Jung: Selected Writings*, ed. A. Storr. London: Fontana Press.
- Lasch, C. (1980) 'Lewis Mumford and the Myth of the Machine', *Salmagundi* 49: 4–28.
- Macauley, D. (1996) 'Greening Philosophy and Democratizing Ecology', in D. Macauley (ed.) *Minding Nature*. London: Guilford Press, pp. 1–23.
- Marcuse, H. (1998) *Eros and Civilization*. London: Routledge.
- Margolis, J. (1978) 'Culture and Technology', *Research in Philosophy and Technology* 1: 23–37.
- Mendelsohn, E. (1990) 'Prophet of our Discontent: Lewis Mumford Confronts the Bomb', in T. P. Hughes and A. C. Hughes (eds) *Lewis Mumford: Public Intellectual*. Oxford: Oxford University Press.
- Miller, D. L. (1989) *Lewis Mumford: A Life*. Pittsburgh, PA: University of Pittsburgh Press.
- Mitcham, C. (1994) *Thinking Through Technology*. London: University of Chicago Press.
- Mumford, L. (1934) *Technics and Civilization*. London: Routledge.
- Mumford, L. (1938) *The Culture of Cities*. London: Secker & Warburg.
- Mumford, L. (1944) *The Condition of Man*. London: Secker & Warburg.
- Mumford, L. (1952) *Art and Technics*. London: Oxford University Press.
- Mumford, L. (1955) 'Program for Survival' from *Values for Survival* (1946), reprinted in *The Human Prospect*. Boston, MA: Beacon Press, pp. 227–60.
- Mumford, L. (1961) *The City in History*. New York: Harcourt.
- Mumford, L. (1967) *The Myth of the Machine: Technics and Human Development*. London: Secker & Warburg.
- Mumford, L. (1971) *The Myth of the Machine: The Pentagon of Power*. London: Secker & Warburg.
- Nielsen, K. (1978) 'Technology as Ideology', *Research in Philosophy and Technology* 1: 131–47.
- Noble, D. F. (1997) *The Religion of Technology*. New York: Alfred A. Knopf.
- Swier, G. M. (2003) 'Technics and (Para)Praxis: the Influence of Freudian Theory on the Philosophy of Lewis Mumford' (under consideration).
- Winner, L. (1977) *Autonomous Technology*. London: MIT Press.
- Zuckerman, M. (1990) 'Faith, Hope, Not Much Charity: the Optimistic

Epistemology of Lewis Mumford', in T. P. Hughes and A. C. Hughes (eds) *Lewis Mumford: Public Intellectual*. Oxford: Oxford University Press.

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