

## Just Gaming: Allegory and Economy in Computer Games

'We need a leader. We have many missions to complete. We have to assassinate leaders of our aggressors, we have to destroy heavily guarded installations. We have many enemies, and they are not all human. We need to cross alien landscapes, over rocky surfaces, through vast subterranean caverns and across insect infested swamps. We need help. We need a leader.'<sup>1</sup> Taken from a computer game advertisement, this is the puerile plea of digital characters, a call echoed in hundreds of such games which invite players to become the ghost in the machine, to enter a virtual environment in which they will learn, travel and kill. To look at the new industry of computer entertainment is to take up issues of exchange and competition, the character of the commodity, fashion, allegory and objectification. It is also to deal with the issue of simulacra, much beloved by postmodern theorists. Far from believing that postmodern ideas of simulation adequately describe computer gaming, I shall look at two older cultural models which provide a more compelling account: Benjamin's writing on allegory and Adorno's theories about aesthetics and the culture industry. There is of course a considerable gap between the perspective and the technology of our time and that of these two thinkers, yet there are parallels for they witnessed the rise of the electronic mass media, at a time comparable to the current rapid growth in the use of computer games. This growth has been a quick, broad flourishing after more than a decade of minority use by a clique of technically minded and (in popular mythology) socially maladjusted, anorak-wearing males. While Benjamin and Adorno stood before a new age of television, we are currently entering a new era of interactive media.

The key feature which distinguishes computer media from other reproductive technologies is the total manipulation of a limited range of elements. To record a picture or a sound on computer is much more inefficient and expensive than using film or tape, and currently the quality of either on domestic machines is crude, but manipulability makes it worthwhile. The distinctiveness of computer games lies in interaction: the passivity of cinema and television is replaced by an environment in which the player's actions have a direct, immediate consequence on the world depicted. Players are surrounded by

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<sup>1</sup> Advert for *Laser Squad*, Krisalis Software Ltd. Thanks to the many people I have had discussions with about this subject, particularly Petrine Archer-Straw and Mick James.

apparatus, in the home by screen, keyboard, joystick and perhaps speakers; in the arcade sometimes sitting literally inside the machine, turned back and forth, shaken in their seats, bombarded by noise; most recently, in 'virtual reality' machines, their heads are encased in helmets which provide an illusion of a fully three-dimensional environment, the views of which change with movements of the body. Other devices, not widely marketed at present, produce tactile feedback and allow an apparently direct interaction with the computer-generated world without the need for arbitrary software interfaces. The aim is to produce an illusion not merely of scene but of action. In most games there is a striving towards ever greater illusion and the envelopment of the player to provide an immediate, visceral experience. Given the technical means available, and certainly when compared with those of the cinema, this project appears chimerical, yet the experience of games can be compelling just because it is interactive, because movements made by the player are immediately translated into a change of view and action. In the game, twitches of joystick and mouse produce great apparent bodily or mechanical movements: this is sometimes like driving a car, where the same disparity between movement and effect is apparent. Simulations of flying and driving, where computer screen becomes windscreen, directly exploit this effect as fantasies of movement and control, counterfeiting speed.<sup>2</sup> Even when the player looks at the scene as onto a stage and the alter-ego appears as one of the characters, the identification remains compelling because the player directly controls the figure: bodies focused around the tiny actions which operate the controls still attempt to reflect on a larger scale the frantic movements of their digital protagonists; the player winces as the character falls, is crushed or otherwise meets its demise. Most of all, in trying to provide a palpable and unified reality in which the player operates, by linking response, vision and sound, the computer game creates a phantasmagoric experience of total immersion.<sup>3</sup>

### Hollywood Dreaming

Computer gaming falls readily into genres as rigid as those of nineteenth-century academic painting. Games are arranged by genre on the shelves of software stores, so buyers may immediately find simulations or puzzles, adventure, arcade or role-playing games. These genres are characterized by game type rather than directly by subject matter but the two are often married in broad tendencies. With the exception of puzzles and to a lesser extent simulations, the genres are dominated by cinema and may be divided broadly into those that emulate film and those that emulate cartoons. Aside from this,

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<sup>2</sup> Analogies go further. Douglas Browning argues that 'The automobile in the lives of many is a thoroughgoing tool within which the skinned body is absorbed and enjoyed for its functioning and in terms of which one plays at being a self.' In relation to driving, Douglas also discusses the new phenomenon of an ongoing adaptation to sudden events, of the constant need for fast reactions: this too of course is very much a feature of the computer game. 'Some Meanings of Automobiles', in Larry A. Hickman ed., *Technology as a Human Affair*, New York 1990, pp. 172-7.

<sup>3</sup> The term 'phantasmagoria' was invented in the early nineteenth century to describe exhibitions of optical illusions produced by magic lanterns, so the term is apt.

interaction and movement tends to be of a cartoon type due to limitations in hardware and programming techniques, but there is a constant striving for ever greater resolutions, smoother animation, more naturalistic movement, more colour, a better rendition of volume and atmosphere. Older games were radically different, tailored to the modest capabilities of the machines on which they ran, coded with great economy to exploit the tiny amounts of available memory with an ingenuity which was also exercised on their content. These sought to take advantage of their very limitations: certain formats were established (platform games, single screen space-invader type games) which were particular to the computer. While these are still common, and while some games are produced (like the Russian *Tetris*) which are very much computer-specific, computer gaming is a medium which, with increasing sophistication, is losing any sense of itself, becoming entirely subservient to the conventions of cinematic illusion. The common aim is now the 'interactive movie'. Dependence on the cinema is expressed in musical scores which accompany the play (sometimes different themes are linked to individual characters or events), also in introductory screens, rolling credits, cuts and fades, long shots and close-ups. Movie spin-offs, whether of *Indiana Jones* or *Robocop*, are only the most obvious example of an increasing mutual dependence. Flagrant plagiarization and quoting of cinema plots, motifs and designs are common, a whole sub-genre of games being founded around *Star Wars*.<sup>4</sup> Other subjects are immediately familiar from cinema: sword-and-sorcery, *Lost Kingdom* scenarios complete with dinosaurs and exotic tribes, detective games and bureaucratic conspiracies.<sup>5</sup>

To some degree separated from cinematic games are a set of yuppie simulations which take the guise of 'serious' platforms designed to show off the capabilities of expensive computers.<sup>6</sup> Here flight and drive simulations (the latter modelling Porsches and other such toys) compete with golf games. The vain yearning for status of those uninvolved in these real activities is partly compensated for by having a computer of sufficient power to run fast and complex simulations. Occasionally the adverts for these games dwell overtly on the snobbery and envy which apparently drives their players: 'Ever sat at your desk and thought "great day for golf"? Or winced as you-know-who swaggered off to yet another tournament? No problem. Wait till you get home and go one better. Just pull up a chair and play LINKS: The Challenge of Golf. And enjoy all the thrills of the game in the comfort of your own "clubhouse".<sup>7</sup> Increasingly, however, the distinction between simulation and the story-based game is blurred as the more

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<sup>4</sup> Obviously, effects used in games may derive from computer-generated special effects in films. It may be that the influence will start to run the other way—so that scenes in films are contrived because of their suitability to be used in the spin-off game.

<sup>5</sup> Conspiracy, and conspiracy theory, have an affinity with computer gaming, for conspiratorial connections are like the links in programming, and no links are denied in the multi-dimensional space of digital frameworks, which may themselves be reflected in multi-dimensional scenarios.

<sup>6</sup> The latest golf simulation, *Links 386 Pro* requires at least a 386 computer with 2 MB RAM and Super VGA Graphics to run, a high specification which rules out many domestic PC compatibles, especially in Britain, but would include many business computers.

<sup>7</sup> Advert for *Links 386 Pro* published by U.S. Gold.

sophisticated simulators are built around campaigns, careers or tournaments, while narrative games often involve passages of simulation.

If part of the pleasure of cinematic spectacle is an identification with the protagonist on the screen, involving an imaginative replay of the action, then computer games seek to make this mental act palpable. In Hollywood film there is already a marked trend towards producing a visceral and enveloping experience, through extreme close-ups, fast cutting and the frequent use of shock, and this is merely in the process of being completed by interactive technology. While the subject matter of computer games is utterly dependent on cinematic genres, cinema itself mimics virtual reality, presaging its actual arrival as a domestic technology. The essential point is that these games, while posing as first-order simulations of reality, are in fact second-order simulations of scenarios dreamt up in Hollywood.

### Economy and Chrome

The basic structure of the game is overlaid with a visual veneer which programmers call 'chrome'. The computer game simulates simulation for—to put it in Hollywood language—beneath its chrome glove lies the iron hand of economy. In early games this structure was visible to the player; elements in the first text-based games appeared as simple characters, and in early line-drawn games transparent opponents were encountered in box-like spaces. Here the simple calculations of the programme were as transparent as the virtual enemy: increasing sophistication has just clothed these calculations in simulated flesh. There is something familiar about the visual aspect of many games, and while this is partly because we already know their elements from films, cartoons, adverts and comics, beyond this they possess a crisp, hallucinatory clarity, the images being constructed from a precise repetition of tiny blocks of which the viewer may become aware. They exhibit a phantom objectivity, a hollowness, being a purer distillation of the generalized forms found in the commodity and the advertisement. To compensate for this lifeless immateriality, there frequently appear glowing objects, flashes, explosions, phantom lights, iridescence in which the ghostliness of the medium simulates an aura, not by slowly impressing on the viewer a sense of presence, but rather by making believe something is there, with a glittering, eye-catching display of movement and transience, linked with speed and inconsequentiality, itself mimicking the flow of digital signals.

At first sight there also appears to be some convergence between the image of computer technology and the shiny, bright, metallic surface of the games themselves, which form a resistant and inhuman glaciis. Colours are bright and synthetic, the shapes they describe are predominantly geometrical, and become more so as they are resolved into polygonal surfaces or the differentiated squares of bit-mapped images. Yet games also play on the precise opposite of this glossy sci-fi world, particularly in the numerous dungeon scenarios where spaces appear dark, often damp, irregular and confining. At the twin poles of space-ship and dungeon, the look of the games amounts on one hand to a virtual image of a smooth, ordered, brushed-steel world, on

the other to its labyrinthine shadow. Between these two extremes, an emerging trend is the use of fractals,<sup>8</sup> which to a degree divorces the look of the game from human agency, arriving at a simulacrum of natural forms. Again increasing naturalism (in technical terms governed by greater resolution and ever greater numbers of colours), means that games are gradually losing their specific look, in favour of a 'style' which is to some degree beyond the control even of their programmers. Specificity finds a refuge only in lapses, in the clumsiness of much of the drawing, in the frequent mismatches in the rendering of objects and backgrounds, and in the flattening of virtual space in a manner which reveals the screen.

The computer game enforces on players a mechanization of the body in which their movements and their self-image as alter-ego provide both a physical and a simulated picture of the fragmented, allegorized and reified self under the conditions of capital. Reification is of course a consequence of fragmenting the body and honing its skills as though it were a mechanism: computer games demand just this action, forging from the unco-ordinated and ignorant body of the acolyte an embodiment, an allegory, of the spirit of the game. Here Adorno becomes relevant, for he claims that cinematic images, particularly the mask-like faces of the stars, which always adopt a predictable form, are commands to be like them.<sup>9</sup> These masks, says Adorno, which freeze what is most living in the real face, are 'emblems of authority'<sup>10</sup>—allegorical combinations of image and command. In fact, all the products of the culture industry anticipate and imitate the required responses of the audience: 'The culture industry is geared to mimetic regression, to the manipulation of repressed impulses to copy. Its method is to anticipate the spectator's imitation of itself, so making it appear as if the agreement already exists which it intends to create'.<sup>11</sup> In computer games, the player not only identifies with the image but controls it in conformance with strict rules of conduct (or else!): conformity has been extended from assent to action. Computer games are different from films in that the player acts, and they are different from other games in that these actions appear to affect a distinct and autonomous world.<sup>12</sup> This action is linked to a definite narrative structure. In almost every game the alter-ego of the player progresses, at least in obtaining equipment and resistance to damage, if not in more specific skills and even moral qualities. There is a marked liberal individualist ethic behind such games in which the character develops through intrinsically

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<sup>8</sup> One of the first games to employ fractals for generating landscapes was *Midwinter 2: Flames of Freedom*, Rainbird, 1992.

<sup>9</sup> Theodor Adorno, 'The Schema of Mass Culture', *The Culture Industry. Selected Essays on Mass Culture*, London 1991, p. 81.

<sup>10</sup> Adorno, *The Culture Industry*, p. 82.

<sup>11</sup> Adorno, *Minima Moralia. Reflections from Damaged Life*, London 1974, p. 201.

<sup>12</sup> In discussing chess Roger Caillois notes that the game takes on an independence in relation to the individual player who inherits a history and a practice of the game and is aware of their own small part in a continuum of chess playing. In computer gaming there is no comparable formalization or recording, but the autonomy of game from player is solidified and made evident. Caillois, 'L'Imagination rigoureuse', *Cases d'un échiquier*, Paris 1970, p. 39.

unrewarding labour. The alter-ego is usually the only character that improves,<sup>13</sup> and this growth is always a matter of trade, the self being a polyp of independent attributes. Measured by number, self improvement is always unambiguous. As though in the ideal market of economists' models, all players start from the same point and with the same resources. Progress is inherent in the game, an immaterial substance, shadowing and interpreting the action, just as exchange value and the aesthetic wrap themselves around real objects.

All digital 'objects' encountered in the game are types, even apparently unique ones, and all are ranked on a common arithmetical scale in which every quality is tradable. The commodity, in its apparently simple surface which conceals metaphysical subtleties and theological niceties, and in its phantom objectivity, is closely related to computer game elements. Like cast metal sculptures, virtual objects are hollow—code (like air) fills their voids, their surfaces being a reflective chrome. They are mirror images of undifferentiated, mass-produced consumer goods: games obsequiously reflect the operation of consumer capital being based on exchange, a trading of money, munitions or energy, a shuttling back and forth of goods and blows. Trading games, like *Elite*, only make this latent content an explicit theme. Pre-selection screens in which the player chooses character attributes or weapons and equipment, all reducible to an expression of number, simulate the deployment of investment capital. The player's performance is of course expressed as a numbered score, while objects when captured or destroyed may become, at the moment of their extinction, a floating number, an economic emblem. Each element of the game, each virtual being or object, acts as a commodity, placed in an extensive metonymic chain in which each link is defined by its position in relation to the others. Terry Eagleton describes how the commodity 'disguises its virulent anti-materialism in a carnival of consumption',<sup>14</sup> and the computer game produces the same disguise without actually consuming anything. A tyranny of number is the founding principle of these games and to play successfully is to emulate the qualities of the machine: reaction, regulation and economy in discrete, repetitive acts. This substructure is generally concealed beneath a veneer of muscular and spontaneous heroism. The allegorical nature of computer gaming is apparent in this opposition between literal structure and rhetorical gloss, in which the unrepresented (universal fungibility and objectification) is expressed through and concealed by the organic, the individualistic, and the absolutes of violence and death. The labour forced on the player is not real, the instrumentalism not really consequential, nothing (except time) is really consumed. Simulation takes the form of a commodification which has arrived at a more rarefied stage. In the world of the computer game, emptied of all materiality, use-value and exchange-value are no longer opposed, but are collapsed into an ideal unity. The game world appears as a perfect, Utopian market, in which

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<sup>13</sup> In some games, though, the attributes of objects and characters are dynamic and may change in response to the players' actions—for instance in *Gods*, Renegade, 1992.

<sup>14</sup> Terry Eagleton, *Walter Benjamin or Towards a Revolutionary Criticism*, London 1981, p. 28.

bright, clear-cut, even glowing commodities are, for once, all that they seem to be.

### Space, Time and Allegory

In the game, temporal progress is mapped onto spatial projection. Game-time is divided between two types of activity: in some games the player is permitted to stop and think, to work out puzzles or strategies, in others there is an unceasing flow of monsters, as though from a production line. Co-ordination and timing are all important in the second type where, as in a time and motion study, mechanical efficiency is demanded. In adventure games there is a mix of slow deliberation and fast reaction, of periods of repetitious, aimless wandering and desultory combat. In both types the action is rigid and episodic. For Benjamin, writing of another allegorical form, 'The *Trauerspiel* is therefore in no way characterized by immobility, nor indeed by slowness of action . . . , but by the irregular rhythm of the constant pause, the sudden change of direction, and consolidation into a new rigidity.'<sup>15</sup> It would be difficult to arrive at a better description of action in computer games which is characterized by a discrete series of blows, flashes and sudden plunges into darkness, matched by disk access: these flashes are like inspirational leaps, suddenly taking the game to a new state in a movement which is so fast that it borders on the imperceptible. In arcade and adventure games there appears to be a simultaneous unwinding of allegory in time and virtual space. While the linear unfolding of the plot as actually played is halting and uncertain, often polyvalent, the hierarchical structure of the game in virtual space is fixed from the start, so there is a degree of mismatch between temporal and spatial mapping. In a perfectly co-ordinated and omniscient player the two would, however, be congruent and it is very much the player's task to assure this accord. Plot combines the disposition of elements in virtual space with the hierarchy of progress: it is the allegorical projection of the synchronic axis onto the diachronic.

The plot is on one level constructed by the player, and on another is the product of a series of automatic actions; following it produces a state of trance in which all sense of time is lost. A dramatic feature of these games is their compression of time, both in the virtual world of play where moments separating action are dramatically foreshortened, and in the real time of the players who re-emerge to discover that more hours have elapsed than they thought possible. Benjamin claimed that the joy of unrolling Ariadne's ball of thread is deeply related to trance, and to creation. 'We go forward; but in so doing we not only discover the twists and turns of the cave, but also enjoy this pleasure of discovery against the background of the other, rhythmical bliss of unwinding the thread. The certainty of unrolling an artfully wound skein—is that not the joy of all productivity, at least in prose?'<sup>16</sup> Following the trace of the plot through the virtual labyrinth

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<sup>15</sup> Walter Benjamin, *The Origin of German Tragic Drama*, (translated by John Osborne) London 1977, p. 197.

<sup>16</sup> Benjamin, 'Hashish in Marseilles', *Reflections*, New York 1986, p. 142.

of the game is not a productive activity, but, as a simulation of production, it elicits in the player the same entranced state, and because of the constant repetition of elements, possesses the same structure of discovery against a background of similarity.

Furthermore, in relation to Benjamin, it can be argued that, just as utopian forms were unconsciously produced in the architecture of the arcades, an ideal past is apparent in the new forms of this technology: in computer games the rigidity of the genres, the jerkiness and naïveté of the pictures (harking back involuntarily to early cinema) and more consciously the simplicity of plot and characterization, all evoke an age of pure belief, a regression to childhood simplicity. In these worlds there is generally little moral complexity or ambiguity, and the digital opposition 0/1 serves as a register for the rigid dichotomies of the game. A lost innocence is briefly returned in which even knowing parodies and self-referential jokes take on an adolescent air, winking at the player. The auratic allure of early technology is complemented by references in many games to a childishly romantic notion of a fake medieval, Tolkienesque past. Here games, self-consciously youthful, depart a little from the cinema—sword-and-sorcery scenarios are more common than film. While for Benjamin, the utopian aspect of the arcades took the form of a dream, in computer games it is a theme knowingly played on and even mildly mocked.

### Mass Carnage

Plainly, though, the game world is not simply utopian. One reviewer put the matter candidly, '... computer games have always been about mass carnage on a grand scale and there's nothing quite like a spot of carpet bombing to really make you feel as though you're doing some damage.'<sup>17</sup> It is in games with contemporary military scenarios that the new medium is found in its most unmasked form. A magazine feature asks, 'What was it really like to fly an American B-17 heavy bomber on dangerous daytime raids over occupied France and Nazi Germany during the Second World War? Microprose... is busy preparing such a simulation for your playing pleasure.'<sup>18</sup> Despite similarities between the conduct of war and its simulation, the essential difference is fixed on here, that however realistic the game, however capable of inducing fear, vertigo or repulsion, these are always (as in watching a horror film) found pleasurable. The contrast between this engaging, repetitive, but essentially anodyne activity and the actual experience of the often drunken, short-lived bomber crews (let alone those beneath them) could hardly be greater. An advert for *F117A Stealth Fighter* reads: 'Spectacular night graphics with special HUD [head-up display] features, sprite explosions and smoke, along with cluster bomb explosions will intensify the game's visual appeal'. There is a blending of simulated and technical features here which reflects the aberrant marriage of gaming and weapons of terror: even so mild an emotion as 'appeal' is qualified by a verb with militaristic connotations. The discord between the scenarios acted out and the

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<sup>17</sup> Paul Presley, review of *B17 Flying Fortress*, *PC Review*, no. 12, October 1992, p. 60.

<sup>18</sup> Anon., 'News', *PC Review*, no. 3, January 1992, p. 10.

pleasure of the player is disturbing, even to some manufacturers. The chairman of Sphere Incorporated warns the users of his state-of-the-art military flight simulation, *Falcon 3.0*: 'Unfortunately war is still a reality. We hope you will use this product to gain a better understanding of the dangers our pilots face and the complexity of the systems they must master. We hope you also understand that war is not a game you can simply reset or play again. In war, every truck, tank, plane or building that is destroyed costs human lives. Soldiers and pilots understand this. . . . Use this product with respect and keep in mind the differences between fantasy and reality.'<sup>19</sup> It is unclear of course how this product could be used with 'respect', for it is just the purpose of the game to cause maximum mayhem among those digitized vehicles and buildings. A replay, a recapturing of an experience is offered which is fundamentally false, yet poses as realism, and which in its objectification of characters and its eternal offer of a rematch, radically denaturalizes acts of mortal violence.

Digitized combat establishes a fiction of multiple lives and 'hit-points', which measure the degree of injury a character can sustain. The lack of consequence in such games is indicated by the way in which bodies and other debris generally disappear soon after they fall or even in the act of their annihilation. The arcade machine-gunner may see hundreds of zombie bodies fall before 'his' eyes, but not a corpse will be left in sight when the smoke clears. In *Operation Wolf*, and its numerous clones, the player guns down countless foes (and innocents if careless), slowly sustaining ever greater damage from enemy bullets and grenades, as if this were mere work, sapping energy. When the player finally succumbs, he finds himself in jail! . . . with the option to continue for another coin. In adventure games characters at death's door can be completely revived by a little food and a good night's sleep. Anyone who has been attacked or injured knows it isn't like this. Yet the games have to pursue this fiction, mainly because of the limitations of the medium and its marketing. In the arcade game there is no time for suspense, and it is unprofitable to kill off the player with one bullet. Enemies must advance and die in hordes, but for the player nothing is irrevocable. Here ideology and the marketing of a technology have arrived at a particularly felicitous marriage.

Such fictions have spilled over into other media, including television: in the immensely popular *A-Team* the side that wins the gun battle is that with the greatest fire-power (usually cobbled together cannon, mortars and flame-throwers): no one is badly hurt in these fights, the baddies stagger off winded, shaking their heads; hails of bullets do no more than dishearten the enemy. Similarly for that children's politician Reagan (in propaganda at least) the arms race was something that could be won and even survived by acquiring enough 'hit points' and special shielding. In the Gulf War the bodies of the enemy disappeared from the actual scene and from memory as fast as virtual corpses disappear from the screen. In such circles, any conception of real harm, of the true nature of violence is strictly suppressed.

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<sup>19</sup> Gilman Louie, 'Foreword: Operation Desert Storm', *Falcon 3.0 Flight Manual*, USA 1991, pp. ix-x.

The military-industrial complex influences this world of games, most obviously in the general sense that computing as an industry is subsidized by military expenditure, and this has been vital to its development, but also in more specific ways: the exchange of information and sometimes personnel, and technical endorsements. The game industry's parasitic relationship to the military-industrial complex may explain why the most over-militarized of countries, Britain and the United States, have the most successful games industries.<sup>20</sup> Many scenarios in computer gaming are based on military simulators and wargame programmes. Computers which aim to predict the outcome of real military actions perform much the same task as those which take care of the onerous calculations in wargames and role-playing games. The computer game's tracking view of the path of a guided missile is only a simulacra of a function controlled by a cousin chip in real life. Current strategic objectives and political propaganda set the scene for game settings: in flight simulations for instance, Cold War games involving flash points in the East-West conflict have given way to 'low intensity' operations against drug barons and unco-operative Third-World tyrants. These games can respond quickly to current events and market demands: the flight-sim *Falcon 3.0* has the player flying campaigns in Kuwait and Panama.<sup>21</sup> Nostalgic interests are also catered for from First World War flying to rewriting history Rambo style in Vietnam.<sup>22</sup> There is also a chance in many games, especially simulations, to play the forces of 'evil': in *Battle of Britain* the player may take the role of a German pilot and swing the war the other way. Within limits, then, the plots of these games show a degree of amoral latitude. Yet if games are allegories, it is reasonable to ask what their demons personify. Aliens in the broadest sense take on this demonic guise, whether they are from outer space, politically beyond the law or beyond the pale, perhaps most often being people of the Third World. Vietnam is the model for many games, whether they are explicitly based on events there or not, and its vocabulary finds its way, in inappropriate contexts, into these games of forgetfulness (so 'fragging' is used in *Wing Commander II* for killing the alien enemy, rather than assassinating your own officers). Whatever form the enemy takes, a subtext relates it to contemporary targets.

As games borrow from the military, in a reciprocal relation military technology takes on the appearance of becoming more virtual, not in its consequences which are increasingly destructive, but in its manner of delivery and in the judgment of its effect (often seen directly) and most of all in the attitudes of those who use it and those who urge

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<sup>20</sup> In relation to the issues of postmodernism, and the computer game as a simulacrum of work, these are also the countries which have gone furthest in destroying their civil industrial bases.

<sup>21</sup> Gulf scenarios have become mandatory in these games with remarkable rapidity. Another example *F117A Stealth Fighter* also uses the Gulf and Panama/Colombia for its playing area and advertises the game on the supposed success of the real aircraft in the bombing of Baghdad.

<sup>22</sup> Real history, even when it is rewritten by the player, is not necessarily sufficient and recent games have seen sci-fi departures from realistic reconstruction. *Secret Weapons of the Luftwaffe* (U.S. Gold), for instance, has the player fighting or operating experimental German planes that (thankfully) never flew.

them on.<sup>23</sup> Such attitudes are not, of course, new—and a direct line links the Gulf War media sandpit with the video screen displaying prime-time snuff movies—but they are reinforced by such technology. Reification is the bottom line.

### The Arbitrary Interface

The player of a computer game has the feeling of being in a discrete world where unchangeable truths may be learned. Learning is not only about plot and scenario, but is also a familiarization with the control system. For while all games are based on economy, the control system—the interface between player and operating system—is largely arbitrary. Control systems which are marketed as ‘intuitive’ merely display some internal consistency. In relation to postmodern theory, it is interesting that this arbitrariness is very much the sort that Baudrillard describes in his essay ‘The Political Economy of the Sign’, being inherent in the very act of positing an equivalence between sign and signified. New systems of ‘fixed and equational’ structures in which all ambivalence is excluded, where the sign acts as ‘discriminant’,<sup>24</sup> are regularly invented in the game world and indeed in all programmes. Any notion of computing as a postmodern realm of chaos and shifting identifications must take on this founding act of universal reduction which, far from being imposed over an anarchic flux of signals, is built into the physical and virtual architecture of all systems from the start.

For Adorno, the virtuoso performance in modern culture is achieved not by triumphing over difficulty, but through subordination. This is apparent in computer games, both literally in their agonistic scenarios and also in the way they force a very particular form of action on the player, of rhythm, timing and reaction.<sup>25</sup> The player’s subordination of the game is achieved through the game’s conquest of the player. Computer games perform simulated acts of reification where slices of immaterial code act as living beings arranged and treated as objects. Even the brutal simplification of digital figures is a register of objectification. The player, too, is blatantly objectified by the act of playing: this is deliberately invoked in the television advertisement for the *Super Nintendo* console in which the player is swiftly transformed part by part into a bio-mechanical being. The player buckles on virtual armour and in responding to the stimuli of the game is doubled both in body and on screen as a bio-mechanical being of single mind. Such

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<sup>23</sup> Paul Virilio has explored the relationship between visualization techniques and military action in *War and Cinema. The Logistics of Perception*, trans. Patrick Camiller, London 1989. Now computers as well as people ‘see’ and instantly act on the data they receive. Baudrillard’s notorious views on war as simulation, produced in response to events in the Gulf, are dissected by Christopher Norris in *Uncritical Theory. Postmodernism, Intellectuals and the Gulf War*, London 1992.

<sup>24</sup> Jean Baudrillard, ‘The Political Economy of the Sign’, *Selected Essays*, Cambridge 1988, p. 81.

<sup>25</sup> There is an ever lessening engagement of the player in peripheral activities such as note taking, map making, even remembering and thinking, which used to be essential to many games. These functions are increasingly taken over by automated mapping and note-taking facilities, and help keys.

a construction of the self apes those genetically and mechanically modified warriors of film and comic book, and prefigures the hideous creations of a military exploiting new applications of genetics, nanotechnology—and computing.

For unsympathetic or bemused onlookers, computer gaming is collapsed into two worrying but possibly contradictory characterizations; of mindless addiction to an alien and impoverished experience, and also the feeling of utter exclusion, that they could not possibly begin to understand or play the game. Both are perhaps based on the hunch that the 'interface' between person and machine is quite unlike that of a tool, being somehow mysterious and threatening. Behind these feelings is the correct impression that the interface dehumanizes the user, while (in an equal and opposite reaction) the user tries to humanize the machine. Computers are made more 'personal' by the addition of cute trivia to the screen or keyboard, or by tailoring the operating system with sound patches, pictures, or a particular colour scheme. On the PC, users of the operating system *Windows* may attach sampled sounds to certain programme events (for instance linking a line from *Terminator* to the exit function),<sup>26</sup> while Macintosh users have long been able to accompany disk insertion and ejection with moaning and retching noises. User and machine, then, meet halfway in a realm of decorated inhumanity where certainties still hold fast and where each may rely on the other as mere examples of a type.

Another property of the interface is the visual aspect which the game presents to the player. The look of computer game settings is often reminiscent of the stage: the difference between isometric and platform games is only the difference between the views from the circle and the stalls. There are also different ways of presenting the self or the character 'aided', whether in the first or the third person, whether the player sees what the character sees, or directly sees the character. There are also games where the personification is abstract and invisible, and where, as a result, the player merely influences rather than controls aspects of the game. In *Simcity* or *Populous* the player becomes respectively a mayor or a mythological deity seeking to influence events in games which will run quite happily without intervention. Here the player is co-extensive with the alter-ego, an immaterial thinking presence, which needs no representation.

In phantasmagoria there will often be points of breakdown onto which criticism can latch. There are many of these in current computer games, which again echo the charming clumsiness of silent movies,<sup>27</sup> sharing with them unsynchronized sounds, spelling mistakes, contextual and continuity errors. Other problems which are specific to the computer game include the difficulty of the character's

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<sup>26</sup> This example is taken from a jokey article about the personalization of computers by Michael Hewitt ('Sounding Off', *Personal Computer World*, November 1992, p. 175). He rightly points out that this phenomenon is only seen with computers and does not generally extend to toasters or washing machines.

<sup>27</sup> Synchronized speech is only just becoming possible in games, so most games replay the devices of silent cinema, and the sound often seems separate from the action.

initial insertion into the virtual world: one of the simplest strategies used to overcome this is used in the Macintosh game *Deja-vu* where the player 'awakes' as an amnesiac, and where part of the task involves the rediscovery of identity and the recovery of memory. At other times, transport to a different world and a different personality is made, but the transition is awkward, particularly with the presentation of contextual information which the player really ought to know ('Greetings. I am Jessica, your mother', and so on). Another point of access for criticism is provided by the machine itself, for sometimes the game hangs as the disk is accessed, disrupting the player's involvement, while at others what ought to be a surprise event is announced by the flashing of the disk light. Points of critique are also provided by bugs (programming errors) and in the manifestly typical nature of each object encountered. Beyond this, there are ways of finding one's path behind the coding, whether by hacking or by chance. Games are generally hacked either to cheat or to get past copy protection. Cheats are generally created by the programmers themselves in order to test the game with ease, and are then discovered by hackers, and such back-door cheats, conferring assets or immunity from damage, are often published in games magazines. All of these points of fracture, of which hacking is the most extreme because it is deliberate, are marginal but radical, points at which the phantasmagoria is breached, and the structure of the game peeps through. Increasing technical perfection will no doubt make the glaxis of the game ever more slippery for criticism.<sup>28</sup> Such footholds for critical perspectives are in any case fleeting and ephemeral, and are certainly no ground for drawing positive conclusions from the medium's development.

### Arcade Nightmares

Outside the home, computer-game arcades form a digital phantasmagoria, far more menacing and affective than the piped music and plastic trim of the shopping mall. There is a distinction in that while the wandering consumers of both the nineteenth century and the contemporary arcades effortlessly submerged themselves in a phantasmagoric environment, entering a digitized world requires commitment and an act of attention, though once this immersion is achieved, virtual wandering is both absorbing and highly controlled. The environment of these gaming arcades—the noise, the largely male clientele, the heat, the relative darkness and intense concentrated points of frenetic activity—is insalubrious. They are, for all their puerility, like sex parlours, and in fact often share their locales, if not their premises, with sex shops and gambling halls. No wonder that in the tabloid imagination the true aim of virtual reality is 'dildonics'—simulated sex, using either a digitized partner or linked with a real person via the phone line.<sup>29</sup> Arcade play is an essentially solitary, male activity which involves a tension between public and private

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<sup>28</sup> A doubt about this is that as programmes become more complex and the interrelations between pieces of code ever more numerous, bugs become much more difficult to detect and control.

<sup>29</sup> There are a few sleazy games of a mild character marketed by the major software houses but sex, as opposed to Hollywood romance, is a subject generally avoided.

spheres. A reflection of this is found in the games themselves. One advert reads: 'You're in the depths of your own worst nightmare . . . but this time there's no waking up. Lost and alone in a dangerous and alien world you must discover where you are, how you got there . . . and how you're going to get out! . . . Re-emerging into daylight you race along perfect parallax action scenes, dispatching enemies as you battle ever deeper into the unknown.'<sup>30</sup> Again there is a merging of technical and scene-setting description in this text. The nightmare aspect is common in many games, an enclosing, claustrophobic vision, which evokes the restrictive space of the arcade and the barriers imposed on the player by a digitally constructed world. Dungeons and labyrinths are of course traditional places for the exercise of allegory, and the links between scenario, environment and computer architecture may be viewed as allegorical, all referring back to the discrete and enclosed action of commerce which produces them.

The arcades naturally recall Benjamin, for there are various levels on which the computer game conforms to his analysis of bourgeois culture. He wrote of a lithograph showing the occupants of a gambling club, '[T]he figures presented show us how the mechanism to which the participants in a game of chance entrust themselves seizes them body and soul, so that even in their private sphere, and no matter how agitated they may be, they are capable only of reflex action. . . . [T]hey live their lives as automatons and resemble Bergson's fictitious characters who have completely liquidated their memories'.<sup>31</sup> Just this combination of automatic action and affective engagement characterizes the playing of computer games. Especially with arcade games, the computer produces in the player a simulacrum of industrial work: the autonomy of each action, its repetition, precise timing and rare completion are all reminiscent of Benjamin's analysis of the gambler's actions. The jerky movement of early games, and even many current ones, clearly presents a progress which takes place in steps, and which maintains the idea of a game move. In many slower adventure games, too, play takes the form of labour in which the exploration of highly complex spaces involves repeated sequences of simple actions. Other games punish failure by constantly pushing the player back to the start. As in work, the effect of this endless iteration is dulling. Adorno commented of modern music: 'Music has become comic in the present phase primarily because something so completely useless is carried on with all the visible signs of the strain of serious work.'<sup>32</sup> It is signs of labour that are apparent in computer gaming, not real work, for the physical strain of heavy, repetitive tasks is replaced by the digital twitching demanded by the control system. Because of the media's intrinsic paucity, emotional attachment to the game is established through labour, emerging out of the Sisyphean nature of the player's task. The arcade, evoking gambling and sex, is actually a furtive simulacrum of the sweatshop.

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<sup>30</sup> This is for the game *Obitus* published by Psygnosis.

<sup>31</sup> Benjamin, *Charles Baudelaire. A Lyric Poet in the Era of High Capitalism*, London 1973, p. 135.

<sup>32</sup> Adorno, 'On the Fetish Character in Music and the Regression of Listening', *The Culture Industry*, p. 51.

Adorno had much to say about the simulation of work in hobbies, now taken up by computer games. Free time, for Adorno, is shackled to modern work which requires useless, disengaged leisure activity to bring about uncritical recuperation. Free time is strictly divided from industry but working habits have become so internalized that 'contraband' modes of behaviour appropriate to work are smuggled into leisure.<sup>33</sup> In the futile tasks set in computer games, as opposed to hobbies, a simulation of this mimicking of working practices is established, for while time is consumed and while the repetition of tiny, discrete tasks and the loss of the self in labour are real enough, the activity is entirely unproductive. Adorno argues: 'No fulfilment may be attached to work, which would otherwise lose its functional modesty in the totality of purposes, no spark of reflection is allowed to fall into leisure time, since it might otherwise leap across to the workaday world and set it on fire. While in their structure work and amusement are becoming increasingly alike, they are at the same time being divided ever more rigorously by invisible demarcation lines. Joy and mind have been expelled equally from both. In each, blank-faced seriousness and pseudo-activity hold sway.'<sup>34</sup> The computer game merely takes this simulation further, being a true pseudo-activity which is nevertheless structured like work. The conceptual demarcation lines between the two even materialize, becoming visible in the borders that outline the screen areas of work and play in *Windows* or on the Macintosh. Yet this raising of pseudo-activity to a purer, more rarefied level in which no material is ever touched, has been accompanied by a radical shift of scene. Adorno wrote at a time when industrial workers found leisure in hobbies and games which emulated labour. In 'postmodern' Britain and the United States, where manufacturing industry is failing, a population is filling its hours with simulated labour, a fictionalized activity which gestures towards and mocks the lack of work in the real world.

Another distinction is also apparent. While the actions of the player are fragmented and repeated, the progress of the game taken as a whole is most unlike gambling or factory work, for story lines are constructed, consequences are followed through, and progress can generally be saved (or restored) at any point. Just as shafts of sunlight pick out patterns in floating dust, narrative meaning is born out of a swarm of acts as various elements of continuity are superimposed on the basic structure of the game. These elements include thematic music, interventions by a 'narrator', and scenes which comment on or frame the player's performance. Games may be more or less authoritarian in forcing the player to follow sequences of specific acts in order to progress, or in allowing a degree of latitude. Unlike the hackneyed plots of movies, especially those which transparently build up expectations and then seek to surprise, the plot of some computer games is truly polyvalent and non-linear. The player-hero may even end up losing, though this eventuality is usually realized outside the game, when it is abandoned from boredom or frustration. While a huge number of possible worlds are established as each stage is won

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<sup>33</sup> Adorno, 'Free Time', *The Culture Industry*, p. 164.

<sup>34</sup> Adorno, *Minima Moralia*, pp. 130-1.

or lost, and while only a very few of this panoply of a thousand plots may lead to final success, actual loss within the game is always discounted in the construction of plot, these branches being forever closed by the restoration of a previously saved game. In the virtual world, the player is usually offered unlimited chances to make good. The division of the temporal continuum of play by saving and restoring breaks with the fiction of plot and reveals the operation of a fragmentary allegorization. The multitude of saved games is like a set of quantum parallel worlds, in which restoring is virtual time travel. For each path to victory, there are a hundred diverse ways to fail, most involving some more or less spectacular death. These hundreds of lost or abandoned games for each one completed, their heroes dead or left in digital limbo, echo the fate of billions of lost individuals under capital.

A further link between allegory and the computer game may be identified through Benjamin's description of the contrast between action and chorus in the *Trauerspiel*, where the latter represents the world of dreams and meaning, and thus interprets the action. There is very often in computer games a similar disjunction (again often established for technical reasons) of action interspersed with animated sequences, dialogue, dreams or visions. These scenes have the function of frames which are placed around the action and make it meaningful, usually by developing the plot. There is also a more literal form where animation is seen inside an ornate frame, or a screen framed by hardware. Of course these frames, especially if they cut across the field of vision, like the struts of a cockpit, act as stable reference points and enhance the illusion of movement; in technical terms, they usefully restrict the proportion of the screen that has to be animated. Most importantly, like a constantly active chorus, the elements of the frame (dials, gauges, or numbers) comment on the action.

As in any narrative, there are moments of tension, both in the arcade game, in the brief pauses between levels, before the player is launched out into a frantic unknown, and in adventure games where this feeling is insistently played on. This feeling of suspense is produced by exploration and revelation, and it is genuine, for there is no way of knowing what is coming next. Discoveries, though, take place against a backdrop of similarity, of repeated and tiled units, which reflect both technical limitations and the expense of writing code. The units from which the game is built up are as plainly discrete as each move. If the game has bugs, these may be revealed in a most startling way, as units break up, and some creature's separate halves wander off in different directions. The utter separation of elements in most games is related to the fragmentation of the object in allegory. It is also linked to the fragmentation of well-known works of art, the reification of their parts (as with the smile of the *Mona Lisa*) which in Adorno's view accounts for their vulgarization, as they fall into sequences of virtuoso, specialized tricks, as though produced by an extreme division of labour.<sup>35</sup> The computer game is inherently fragmentary, not only in its visible components but in the multiple and repeated strands of the 'plot' as played, and in the discrete jolt of each action. The link

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<sup>35</sup> Adorno, 'The Schema of Mass Culture', *The Culture Industry*, p. 76.

with allegory is hardly incidental because objects and characters encountered in the game world are generally emblematic, both name-image assemblages and examples of a type. A very literal example of this quality can be seen in many recent adventure games in which the player asks for a description of some object and its name appears above it. Adorno comments on ‘. . . the representation of particular emotions in the film, where there are physiognomic patterns for anxiety, longing, the erotic look; for smiling; for the atomistic expression of debased music.’<sup>36</sup> In a game like *Ultima Underworld*, and in this it is not unusual, the characters encountered are often archetypal expressions of virtues and vices, which can be relied upon to forever act in the same fashion, being allegories of their chosen principle, whether it be greed, vanity or pride. Again this allegorical aspect may be related to the commodity as a whole: ‘The cult of the new, and thus the idea of modernity, is a rebellion against the fact that there is no longer anything new. The never-changing quality of machine-produced goods, the lattice of socialization that enmeshes and assimilates equally objects and the view of them, converts everything encountered into what always was, a fortuitous specimen of a species, the *doppelgänger* of a model.’<sup>37</sup>

### Be Somewhere Else

More connects the computer game and the heritage industry than their use of digital technology to promote kitsch simulations of an idealized past. Many games take the form of a staged, touristic exploration. To complete the game, the player is forced to travel everywhere, and there is a mental compulsion to do this too, a digitized equivalent of the cultural imperative to ubiquity. As with the exploitation of ‘heritage’ themes, many of the game elements are familiar since childhood and are recognized at once. They are collected, combined and packaged as entertainment, inevitably with a strong flavour of pastiche. The experience is evocative rather than informative since the past is represented by ‘archetypal’ codes—the twenties by jazz music or a bakelite telephone, prehistory by some Racquel Welch figure in a fur bikini. It is not so much the stuff of history as of television series and pulp novels. This is essential because, as we have seen, the operation of these games is largely parasitic upon other media and half-remembered scenes are an important foundation for the players’ emotional engagement. Aside from technical limitations, detail is expensive to code, so it is important that objects be recognized using only minimal clues: instantly recognizable scenarios also establish easy anticipation and expectations. In this way, even the games with the greatest pretensions to realism are actually caricatures.

Like tourism, computer gaming is largely based on spatial exploration. This is partly because there are several problems with producing temporal development in such games. Actions may obviously be triggered by the player’s acts but other characters cannot be permitted to develop independently, or to complete actions autonomously, or

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<sup>36</sup> Adorno, ‘On the Fetish Character in Music and the Regression of Listening’, *The Culture Industry*, p. 46.

<sup>37</sup> Adorno, *Minima Moralia*, p. 235.

the whole plot might collapse. When other characters act, it must be in a circular manner, literally going about their business.<sup>38</sup> The spatial nature of computer gaming means that progress can only be expressed in terms of travel, or if it is marked as a definite stage, in the breaching of some barrier. Hence the overriding importance of locks and keys, levels, hidden items, secret doors, and false walls. The tasks the player must perform to gain entry are often of the boxes-within-boxes type, a way of hierarchically structuring an otherwise free space. Travel, moral progress, the return home, topography and mapping, the distorted spaces of the dream, the dungeon, and the labyrinth are all of course mainstays of allegory.

There is another way of looking at this aspect of the computer game, which is through the relation between allegory and script. Benjamin notes that atomistic, alphabetical writing is furthest from allegory which rather takes the form of monograph or hieroglyph.<sup>39</sup> This relates in a highly literal way to early games in which the computer's text-characters were used to stand in for fictional characters and objects. More broadly, the inquisition of words and signs in adventure and detective games is allegorical since they are utterly separate from one another and function less as carriers of meaning, than as passwords or magical incantations, serving uniquely to open doors or motivate actions. Lastly, the whole form of the computer game may be seen as a figure or monogram in which all the characters, except the player's alter-ego, are tied to specific locations in a strict configuration. Although they always have a purpose, computer players act as flaneurs of the digital realm in their often aimless wandering, their detached engagement with virtual objects, their feeling that nothing really matters, and their exploration through saving and restoring of many different possible worlds. This is the aspect of computing which has endeared it to postmodern theorists: the lack of apparent consequences of action and knowledge, the adoption of (multifarious) roles, the simulation of phenomena which are already simulations, the self-consciousness of the players and the manifest nature of the fictions. The player is aware of, and even mocks, these game elements, but this does not prevent participation. Unlike the postmodern aspects of plot, role and simulation, the modernist dream of eternal technological progress is not ironized. Unlike the aimless flaneur, the computer player (like the shopper, the snapper and the hack) loiter with intent. It might appear that acts of reification are ameliorated by detachment, but engagement and belief on all levels is hardly necessary for its functioning. The degree of detachment is largely dependent on the current limitations of the medium, and it is in any case an epiphenomenon, in no way essential to the medium: concentrate on it is to ignore the fundamental features of computer entertainment, most particularly the nature of interaction which not only enforces conformity but does so through the use of a rigid, exclusionist sign system.

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<sup>38</sup> There is an exception, when a character's action actually ends the game within a certain time limit, which the player generally knows of in advance. Then this character is allegorized into the principle of that act, whether destroying the universe or forcing the princess and, above all, ending the game.

<sup>39</sup> Benjamin, *The Origin of German Tragic Drama*, p. 175.

## Fashion and Memory

The operation of desire in these games is simply an acute form of the normal procedure of the market in a fashion-driven culture: there is always a sense of something beyond the present experience, of some unused potential within the machine, of a task never quite finished, of a realism not quite complete. The yearning for completeness in allegory is never satisfied, so details proliferate and plots endlessly lengthen.<sup>40</sup> In computer games, scale, complexity, the number of characters and the size of the playing area, are still celebrated as intrinsically positive points, partly because hardware and software restrict these factors, but also because of their allegorical aspect. This may also be related to the development of computer games as a whole. 'A daemon never tires or changes his nature',<sup>41</sup> claims Angus Fletcher, and so as long as it is present, the allegory must continue. The slaughter of demons is indeed the only hope for a conclusion and is almost invariably how games end. Of course, if it was any different, if expectations were fulfilled or demons took a break, then the game would stop. There is a distinct problem in computer games of providing an adequate ending: nothing can quite fulfil the expectation of such a long task finished, especially because the ending so often appears in an arbitrary fashion, as the result not of some supremely difficult task, but as the chance consequence of just another combination of key-strokes. The ending is at once longed for and known in advance to be a let-down. The impetus to the next thing is of course an accurate reflection of consumer fashion culture. It operates both in playing the game itself and in the yearning for the next game with its attendant technical advances: a symptom of this is the fixation of the computer leisure magazines on previews which dominate coverage of what is actually available.

As the boundaries of illusion are pushed back, and players' expectations follow suit, games very quickly become obsolete. Yesterday's state-of-the-art games are unplayable today, for the act of imagination and involvement necessary for playing is intimately tied to the state of the technology at any particular moment. Constant amazement at the predictable improvement of hardware and software keeps players engaged. Currently the goal is utter illusionism and the pace of development is fixed on that aim: questions of style are generally secondary. As a consequence, games become ever more immediate since, in the interests of realism but also because of the televisual mode in which they operate, words are progressively abandoned in favour of pictures or even speech, typing in favour of mouse and joystick movements, even when the former would be more efficient. Yet there are anomalies in this onward march of technical progress. It is ironic that those with sophisticated machines running *Windows* (that most profligate of operating systems) are now treated to a reprise of some of the crudest early games, which run in squares under the new system. The advantage of *Windows* for the employee is of course that its multi-tasking system is ideal for playing, say, *Asteroids* at work

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<sup>40</sup> See Angus Fletcher, *Allegory. The Theory of a Symbolic Mode*, New York 1964, pp. 174–5.

<sup>41</sup> *Ibid.*, p. 176.

while pretending to be working on a spreadsheet since one can be switched for the other very quickly. The increasing dominance of the 'Graphical User Interface' over text-based systems may be partly due to the general trends towards visuality and illiteracy in the culture, but it is comforting also that the great popularity of *Windows* may be owed to the ease with which one can cheat on one's employers.<sup>42</sup> The irony is that employees cheat only to engage in a simulacrum of work.

While computer entertainment is immensely dynamic in its technical development, definite trends may be observed, and these are not merely a matter of fashion but have a definite teleological impetus towards greater illusionism and an ever greater immersion in the unreal. If a truly cinematic, fully fractal,<sup>43</sup> illusion is achieved, the replacement even of tourism by virtual exploration becomes possible. Many of the points of critique which have been examined here, and many of the aspects of computer gaming which are most obviously allegorical, are the product of technical limitations, leading to framing devices, pauses in the action, the fragmentation and repetition of characters and objects. The manifest forms of allegory will probably decay as the medium advances leaving a seamless face, concealing an allegorical form, the mapping of plot onto structure and the disguise of economy behind aggressive heroism.

### A Utopian Apocalypse

According to Robert X. Cringely, the documenter of Silicon Valley mores, it was alienated adolescents who founded the microcomputer industry: '... they split off and started their own culture, based on the completely artificial but totally understandable rules of computer architecture. They defined, built and controlled (and still control) an entire universe in a box—an electronic universe of ideas rather than people—where they made all the rules, and could at last be comfortable.'<sup>44</sup> Social dissatisfaction is still inherent in the alternative realities of the game world, and fantasy scenarios often refer to contemporary problems. The latest *Ultima* games, for instance, definitely have a liberal agenda, confronting problems of pollution, drug addiction, racism and religious fundamentalism. The idea that a single individual is able to rectify such problems is of course a deeply ingrained part of Hollywood ideology—and the idea that potential heroes confine themselves to simulated action to cure these ills is laughable. The ambition in these games is to create a new world and

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<sup>42</sup> There are of course other devices: 'false DOS' keys which apparently return the player to the operating system, programmes for hiding entire directories and for silencing noisy game programmes.

<sup>43</sup> In games, fractals might be used for much more than merely generating realistic looking clouds, foliage and landscapes. They may also be used to store any image in a compressed form. It is well known that mathematically generated fractal images are infinitely complex and that any detail of a particular image may be redrawn at greater resolution, then any detail of the resulting image, and so on. A consequence of this is that a scanned image of a photograph, for instance, when described in terms of fractals, may be able to generate detail which was not present in the original. This has rather startling implications for the notion of realism with regard to computer representation.

<sup>44</sup> Robert X. Cringely, *Accidental Empires: How the Boys of Silicon Valley Make Their Millions, Battle Foreign Competition, and Still Can't Get a Date*, London 1992, p. 14.

this time to do it right, to make something which is much better, much worse, or at least less tedious, than reality. The aim of utter illusionism which reintroduces particularity back into the virtual world, which leads the player up blind alleys for the sake of realism, does not counter this, for the pleasure of such games is the gradual emergence of meaning from incoherence and the increasing congruence of action and allegorical progress. The scenario is more often dystopian than utopian but at least dystopia is not boring. A review of a futuristic helicopter simulation begins, 'Some say that the millennium will bring the Apocalypse. *Gunship 2000* offers a chance to fly the potential weapons of its making'.<sup>45</sup> Computer games, whether offering images of heaven or hell, may be seen as the ruins of an imagined history.

Part of the point behind Benjamin's writing about gambling was his assertion that in games of chance, the player empathizes directly with the sums bet, so paving the way for an empathy with exchange value itself.<sup>46</sup> Computer games which, as we have seen, form an ideal image of the market system, obviously take on and reinforce this function, but also have a wider ambit. The action of the player is a disturbing reflection of relations which hold true, but remain largely hidden, in the real world.<sup>47</sup> In an ironic simulation of political and military power, the player is accorded an objectifying force and apes those in power, manipulating realistic forms which are actually figures, rather than manipulating figures which are actually people. Computer games present a precise, reversed reflection of the preoccupations and even the techniques of capitalist power. Marx and Benjamin arrived at widely differing analyses of the nature of phantasmagoria,<sup>48</sup> but the computer game apparently simulates them both. The virtual world is a dream of an alternative, complete and consistent reality in Benjamin's terms, while the cloaking of economy with chrome conforms to Marx's account of the camouflage of actual relations. What, though, is the utopian dream concealed by, if we are to allow the game as phantasmagoria in Benjamin's sense? This is a delicate question since to the outsider the answer would certainly be—behind violence and objectification. So for those looking on, simulated 'real' relations mask utopian dreams, while for the initiate it is the dream which masks economy. Here simulation is the most crucial feature: the establishment of virtual commodities, exchange and objectification, even of base and superstructure relations, creates an ideal structure in which all these factors are harmoniously united.

Computer gaming is no longer a small minority affair, nor are the programmes written by amateurs in the hours after school. Major

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<sup>45</sup> Mark Ramshaw, 'Apocalypse Now', *PC Format*, no. 1, October 1991, p. 35.

<sup>46</sup> Benjamin, letter to Adorno, 9th December 1938, *Aesthetics and Politics*, London 1977, p. 141.

<sup>47</sup> Adorno is again pertinent here: 'The only possible ingress into art is the idea that something on the other side of reality's veil—a veil woven by the interaction of institutions and false needs—objectively demands art. It demands a kind of art that can speak for what is hidden by the veil.' *Aesthetic Theory*, trans. C. Lenhardt, London 1984, p. 27.

<sup>48</sup> See by Rolf Tiedemann, 'Dialectics at a Standstill', in Gary Smith ed., *On Walter Benjamin. Philosophy, Aesthetics, History*, Chicago 1983, pp. 278–9.

companies (like Virgin) are involved, deploying substantial development budgets to create games which involve the participation not only of programmers but of writers, researchers, artists and musicians. Technical developments in the realm of virtual reality, which have received wide media attention, make these issues of much wider concern than an examination of the mores of a narrow and obsessed male-dominated group. The advent of this technology, which may have profound effects on our culture,<sup>49</sup> has as its basis the methods and the ethos of computer gaming. Current computer games are already emulating virtuality in their use of flexible first-person perspectives, and in their obsessions with space, speed and flight. Virtuality will of course have wider applications than gaming, yet under the guise of a hippy-inspired, mind-expanding alternative reality, it may sneak in a powerful tool of mental conformity. In their structure and content, computer games are a capitalist, deeply conservative form of culture, and their political content is prescribed by the options open to democracy under modern capitalism, from games with liberal pretensions to those with quasi-fascist overtones. All of them offer virtual consumption of empty forms in an ideal market. By confining the ideal forms of work and exchange to the digital world, computer games might appear to offer an implicit critique of post-industrial societies where these ideals are no longer on offer. They certainly do set out to give the player an escape into a world of certainty and fulfilment, yet these merely echo the past forms of industrial work, an ideal and nostalgic vision of the market-place and the instrumental loitering of the tourist and the shopper.

The technology of computer leisure is not consciously controlled by politicians or captains of industry, but driven by market forces, and conditioned by the parameters of the computer industry's links with the military. Nevertheless, there is in these games a dialectic of increasing naturalism and objectification leading to an ever greater concealment of the latter behind the former, to an ever greater blurring of the use of people as instruments in the world and the game. In general, computer gaming leads to an extreme social atomization of the players; because of the fragmentary and episodic nature of the activity, it is very difficult to relate the experiential aspect of it to anyone else (even if they know the game). All that can be retold are scores: outside the digital arena, the heroics, the effort and the emotional commitment are all meaningless. This is all the more so because forgetting is an essential part of the operation of the market, vital to the rapid obsolescence of any particular game, the unplayability of old games and the impetus of fashion. There is a shadowy ambition behind the concept of the virtual world—to have everyone safely confined to their homes, hooked up to sensory feedback devices in an enclosing, interactive environment which will be a far more powerful tool of social control than television.

The aspects of computer gaming I have chosen to examine—allegory,

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<sup>49</sup> Caillouis in another context, suggests one possible consequence of stepping beyond the screen-mirror, the exact effect of virtual reality technology: 'la civilisation est une conquête fragile, protégé seulement par une mince épaisseur de verre . . . Les monstres demeurent à l'affût.' *Cases d'un échiquier*, p. 41.

fashion and reification—are all related. Allegory is manifest in a double sense: there is an allegory of plot (where spatial structure is mapped onto temporal progress) and of action (where the absolute of death is laid over with a structure of trading and economy). Allegory is linked to fashion because of its fragmentation of the image into elements, and fashion is like objectification because of the fungibility of its elements, in that there is no restriction on the number or type of combination allowed. Fashion is an endless and circular process which runs through all the possible sequences of a fragmented ensemble, as in the autonomous rising and falling of hemlines, like the ebb and flow of waves on a shore. Memory and fashion are linked since the latter is reliant on a constant forgetting of meaning in a process which leaves only the husk of forms. There is clearly also a connection between allegory and objectification, for allegorical characters are empty shells, not creatures but remorseless robots, absolute embodiments of the principle they serve. Like Max Ernst's painting *The Angel of Hearth and Home*, a premonition of the demon of fascism unleashed on Europe, or the robot in *Terminator*, they proceed inexorably towards their goal, incidentally trampling everything in their path. For Benjamin, dialectical thinking is embodied in the current epoch dreaming of the next: 'Each epoch not only dreams the next, but also, in dreaming, strives towards the moment of waking'.<sup>50</sup> While the old arcade culture perhaps produced dreams of the collapse of commodification and an idealist glass architecture, behind the strained heroics of the computer game lies another dream, which takes cluster bombing as spectacle and slaughter as heroics, a dream of the apocalypse, of instrumentalization, of forgetting, and of mechanical stupidity. It contains both the bright metallic environment of a brave, new world, and the nightmare spaces of Piranesi's dungeons, identified with utopia and apocalypse respectively, but each containing elements of one another. It also holds within it a dark fantasy of bio-mechanics, where the exchange and manipulability of digital elements are mapped back onto the human body itself. Finally, it is also a dream of dreaming itself, invading subjectivity at a very low level, and producing manufactured memories and dreams which are powerful because based on a simulated action. As in so many ways, these games replay the nightmares of the movies, this time of thought control, specifically of *Bladerunner*, where no one can know that their dreams and memories are really their own.

Adorno, writing of high culture, described how works of art are 'not just allegories, but the catastrophic fulfilment of allegories', in which the most recent art appears as a shocking 'explosion' which consumes appearance and the aesthetic itself. Even this form is certainly appropriated by computer games which also—'As they burn up in appearance, they depart in a glare from empirical life'—being its antithesis. Adorno concludes, 'Today art is hardly conceivable except as an orientation anticipating the apocalypse.'<sup>51</sup> Further, Adorno wrote in a letter to Benjamin: 'As things lose their value, they are hollowed out in their alienation and, as ciphers, draw meanings in.

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<sup>50</sup> Benjamin, 'Paris, Capital of the Nineteenth Century', *Reflections*, p. 162.

<sup>51</sup> Adorno, *Aesthetic Theory*, p. 125.

Subjectivity takes control of them by investing them with intention of desire and dread. Because dead things stand in as images of subjective intentions, these latter present themselves as originary and eternal. Dialectical images are constellations of alienated things and thorough-going meaning, pausing a moment in the undifferentiation of death and meaning. While things are in appearance awakened to what is newest, death changes meanings into the most ancient.<sup>52</sup> A number of dialectical oppositions are set up in this statement, the contrast between fear and desire, and between the new and the old. Adorno notes that 'desire and fear' resolve themselves into images of Utopia and Hell respectively,<sup>53</sup> and this mix is by now familiar. Both these contrasts are very evident in the computer game, and they are presented in the manner of frozen, dialectical, allegorical images. Aside from the fleeting points of critique already mentioned, code is not pure cipher, form and meaning have a definite independence for the game always presents itself as an autonomous environment. Things are simulated, but they attract meanings just the same. Adorno's supposed redundancy in relation to 'hyper-real' mass culture is, I believe, refuted by the way in which his writing is often prophetic of later developments. His pessimistic belief that the cultural means of fascism have been adopted by those in the West who helped defeat it, has obvious relevance to the militaristic glorification, the knowing employment of myth, the objectification and the powerlessness of criticism inherent in computer games. In these games there is a tenebrous dance of the utopian and the apocalyptic, an ambiguity which it is tempting to resolve by saying that it presents the apocalypse as a utopian scenario. If this is so, it is because the absolutes of destruction and death are sought as an escape from the virtuality and artificiality of everyday life. Ironically, this can only be achieved in a digital simulation, though its effects may spill back into the real world. The defining image in all this comes not from any game, but naturally enough from a blockbuster film, *Terminator 2*, being the jarring crunch of human skulls under the bright chrome of a robot foot.

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<sup>52</sup> Benjamin quoting Adorno, 'Konvolut N', in Gary Smith ed., *On Walter Benjamin*, pp. 54–5.

<sup>53</sup> Adorno, letter to Benjamin, 2nd August 1935, *Aesthetics and Politics*, p. III.