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In the pages that follow, I shall not be considering 2001 as some sort of perfect formal system whose elements – sound, image, directing of actors, sets – complement and fit perfectly with one another. Once again, any 'unitary' conception of *mise en scène* or art is alien to my approach. This section, in a few brushstrokes, will merely attempt to compose a portrait of Kubrick's unique work.

Hero-spectator and Spectator-heroes

2001 is a film whose hero could be the spectator – maybe that is why its characters are so neutral, so we can slide into their skin. They are less *characters* than *tourists*, especially in the second section. The original ads often sounded like pamphlets from a travel agency: 'Imagine you are in 2001 ... your day starts like so.' The film did take on the flavour of a widescreen documentary in the publicity campaigns, and some critics held this against it, but it was part and parcel of the strategy (remember that Kubrick was a reporter for a long time).

We should not forget that the film was shown in many Cinerama theatres, and this giant-image process, formed from three vertical images projected side by side, was associated in the public mind with travel movies and spectacular attractions. The Cinerama spectator was invited to fly over Niagara Falls or the Grand Canyon, or, as with today's technospectacles in World's Fairs and certain museums, to experience in his or her seat the sensations of a downhill run on a bobsleigh or a roller-coaster ride.

Both like and very unlike the Cinerama hype, print publicity for 2001 offered viewers not a dangerous adventure with its strong sensations, but a comfortable stay and a pleasant, even hypnotic voyage, and, as icing on the cake, a sort of slow-motion ride on a Ferris wheel.

Kubrick often makes his characters into spectators, even tele-spectators, thereby playing on our fascination for images within images. From the apes gathered around the black slab, to Bowman's eye that seems to paint seas of colour into what it sees, not to mention Poole and Bowman who, while eating, watch their own picture on the screen and listen to their recorded selves on the BBC, characters are often *looking at the same thing we are.* 

Characteristically, the only shot in 2001 in line with conventional science-fiction imagery delights in showing us three astronauts in space-suits in the foreground posed against a lunar landscape in the background. But one of them is holding something that looks like a camera, and the touristy aspect of the presence of men on another planet is ironically suggested. It becomes acceptable, and does not seem out of joint with the film – at the same time that it foreshadows the ultimate reduction of Dave to an *eye*. Similarly, a little later, we see the astronauts walking towards the excavated monolith in their spacesuits; they look like a busload of tourists left to their own devices for a few minutes at the pyramids at Giza.

We could also add the flickering video monitors whose palpitations and twinklings undermine the cold calm of Kubrickian imagery that surrounds them. It was a new idea at the time to portray screens within the screen; at least, it was new to use them so systematically. Since then, these subscreens that Kubrick helped introduce, and which in his films have the peculiarity of often being vertical in format, like portrait paintings, have become baseline props in countless movies.

### A Film Laid Bare

In its final form, 2001 approaches what we might dream of as pure cinema. But we have already seen that the director did not get there in a straight line. The process involved adding a lot, and then taking away a lot – without knowing what lay beneath – to attain this bare film.

Anyone who has watched or supervised the editing of a film has felt that at some point, at a stage when the final sound has not yet been laid in and the cuts are rough, the work can attain a sort of mute and mildly hermetic perfection, an irrefutable laconicism, with the obviousness and also the fascinating obscurity of a found object. After that point, whether you are called Kubrick or Joe Smith, what you generally do is go over the work,

make things explicit, forge interconnections, extend subtle relations of meaning and rhythm.

Most of Kubrick's films are supported by a voice-over narration, so that where this voice is absent is where 'objectively' it seems the most imposing: in 2001. Today we find it easy to judge a voice-over as absurd or redundant. But it is hard to know what A Clockwork Orange, Full Metal Jacket or Barry Lyndon would have been without their narrations, which are very explicit or at least which seem so.

Besides, 'narration' has not completely disappeared in 2001. At times it comes through Richard Strauss's imperious music, like a finger pointing to the determining importance of this moment or that, and narration is manifest, too, in the particular succession of shots.

So it seems that Kubrick had planned at the outset to make this *Space Odyssey* a film of continuities, a film like others whose splices, breaks and matches are covered or absorbed. Ultimately, not only did the director reject Alex North's music, but he put in some of the most dissimilar musical pieces imaginable. In a similar vein, he used the soundtrack to accentuate discontinuities between shots, especially with some moments of absolute, radical silence over shots of humans in space. And finally, he rejected clarifications, so that on the level of articulation as well as story, through juxtaposition of titled sequences, *2001* is one of the barest films in existence – in other words, where the technical principle of fabrication through a collage of moments is accentuated, like exposed wire, like the plumbing and electricity visible in a house whose interior walls have yet to be built.

Settings: a Centripetal and Circular Space

The most remarkable characteristic of the interior sets of 2001 is that, despite the hugeness of the constructions they persuade us to imagine, their perspectives, proportions and lighting immediately give the sense of an enclosed and self-sufficient place. This leads Michel Ciment to observe that the characters 'live . . . as if they are holed up in honeycomb cells that do not communicate'. Maybe this helps to explain the heightened sense of drama in certain scenes where one character invades the space of another: for example, when Dave goes to Hal's brain or circuit chamber.

Often in Kubrick, the camera presents interiors – an office, an instru-

ment panel, even sometimes a character – in a way that makes them appear self-contained. The lobby of the Orbiter Hilton, the conference room where Floyd gives his speech, the monolith excavation pit and the Regency bedroom seem offered to our vision once and for all at the instant in which they appear, each like a box of characters. Even the monolith, when the apes first see it, is presented whole, in a setting itself enclosed like a theatre stage. For other directors, such as Hitchcock or Bresson, the image is centrifugal: it constantly points to what it does not contain and what is external to it. The image in Kubrick, in contrast, is very clearly centripetal, attracting attention to what is at its centre.

One factor contributing to this phenomenon is Kubrick's propensity for showing the floors and ceilings of the sets in forced perspective, often employing wide-angle lenses to take in the whole set and surround the characters with it. Kubrick insistently uses long shots that show us the actors from head to foot, a technique used infrequently in sound films.<sup>2</sup>

The director embroiders several variations on this theme. While his curved set for the space station interior is a long 'ribbon' whose extremities we cannot see at any given moment, and scattered with commercial logos and symbols (the Hilton, Howard Johnson phone booths), but including windows on to space, the set of the Clavius conference room is like a hermetically sealed square box, bereft of any signs except the American flag.

The symmetrical conception of certain places reinforces this sense of enclosure. The film's largest set, for example – a combination of models, normal shooting and effects – is the underground airport of the Clavius moon base. Not only do we see it in its entirety all at once (instead of having it revealed to us progressively through editing or camera movement), but also its symmetrical form, filmed from a position emphasising this symmetry, closes it completely in on itself, and with it the vast artificial world it contains.

The circular hallway of the centrifuge where Poole runs like a squirrel in its cage also emphasises the idea of enclosure – contradicting the feeling of euphoric dilation of space produced by the wide-angle lens, which we know makes it look as if a character is going large distances.

Much of the Discovery set is conceived to associate weightlessness and circularity.

Light and Colours: White, Red and Black

As I have said, enclosed spaces in Kubrick give off their own light, enclosing the characters in a sort of aquarium. The toilets and bathrooms in *The Shining*, the bar in *A Clockwork Orange*, Hal's brain, the Hilton hotel and the bedroom and bathroom of 2001 all have walls that appear to radiate light.

White is found almost everywhere in Kubrick's films, and not just in the bathroom settings he is fond of, where important scenes take place in *Dr Strangelove*, *Full Metal Jacket*, *The Shining*. This insistence culminates in *A Clockwork Orange*: the white cats, the white outfits Alex and his companions wear, the enriched milk they drink, the decor of the 'molocho bar', the white phallus-sculpture, and so on. In 2001, the white sets literally radiate; the audience bathes in light from the screen.

Red is the second important colour. For reasons more symbolic than scientific, 2001 encourages us to see some settings as representing the interior of the human body. This effect is particularly noticeable for the underground area of the moon base, and in the airlock where Dave manages to get back into the Discovery.

Black: in contrast to the many brightly lit images, some shots show the total darkness outside in a terrifying manner. In the scene where Bowman recovers Poole's body, the images and soundtrack bring out the immensity of the void where the action takes place: the pod piloted by Bowman, and the floating spacesuit containing Poole's body, are depicted as tiny dots of matter and light in an ocean of silence and blackness. It is on purpose that the light from the stars in the sky is dull – the symphony of light at the end is then all the more impressive.

Camera Angles: Heroes Turned Upside Down Low-angle shots are classically used to magnify foreground objects on several occasions in the film, in very specific cases:

• to show the monolith in conjunction with the sun (but in contrast, the first view of the monolith is intentionally 'realistic', and the slightly high angle situates it in a setting clearly indicating its modest proportions);

when the apeman has worked out how to use the bone and goes about smashing the tapir skeleton; and later, when he triumphantly throws the

bone into the sky. We have a case here of a rather disquieting connotation of the heroic;

• at the beginning of the Discovery episode, when Frank Poole is exercising. This is one of the film's bravura shots; the camera is behind or in front of Poole, and the centrifuge turns around him, situating us in a self-enclosed world where there is no up or down.

Interestingly, the authors of *Le Foetus astral* note, 'When Dave [an understandable mistake on their part for a movie whose characters are almost interchangeable: it's Frank] shadow-boxes his way around the circular hallway of the Discovery's cabin, and when the camera is travelling ahead of him then follows him, even though he is running, he remains in place: any movement is cancelled out';<sup>3</sup>

 when Dave goes to disconnect Hal: Dave appears at that moment like a sort of menacing giant. But later, inside the brain, he looks more like someone swimming in an aquarium.

Several camera angles in 2001 function to emphasise the fact that we are in outer space. When the stewardess walks on the ceiling (and is thus apparently filmed by a camera riveted to another part of the spaceship), she is shot upside down in the next shot; the camera does a 180-degree rotation to put her 'right' on her feet.

The interior of the Discovery's centrifuge is first presented with the camera on its side, so to speak, on the perpendicular, so that we see Poole jogging horizontally. Another spectacular shot makes Dave, seen vertically, coexist with Poole in bird's-eye view; it shows them in contiguous but different spaces, at a 90-degree angle from one another.

When Poole and Bowman eat side by side, we see them from a high angle, almost upside down.

For all these striking camera positions, 2001 nevertheless adopts a strong horizontality most of the time, including when it shows the silent course of the Discovery, whose elongated shadow, like a snake or a dinosaur skeleton, skims along horizontally, always from left to right, in conformity with the conventional spatial iconography to signify movement towards the future. Similarly, the monolith is to the right when Floyd touches it, and when it appears to Dave Bowman at the end of the film.

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Shot Transitions

2001 is a film whose shots are juxtaposed through often stark cuts. Fadeouts followed by fade-ins are rare: the 'Dawn of Man' section has two, there is a rapid one at the end of Floyd's interview with the Russians, and one at the end of the central sequence of the Discovery. But most major transitions are articulated by cuts. The sole dissolve, which we shall discuss later, superimposes Hal's eye over a shot of Dave moving towards the 'brain' to destroy Hal.

The cut has become the principal type of visual transition in film, as is well known. Since the 20s the cinema has normally softened the jarring force of the cut by integrating it into a well-developed continuity system relying on matched movements and sounds, echoes between dialogue and images, and multiple overlappings among the various layers of the film text, so that the potentially brutal rupture ceases to be noticeable. In 2001, on the contrary, Kubrick strips the cut naked: the cut becomes a device of commutation.4 And his strong contrasts in brightness - from the deep black of the interstellar void to the explosive white of the spaceships - only underscore the rupture of the cut still further.

In addition, we increasingly find as the film proceeds, especially in its most dramatic moment - the duel with the computer - the tendency towards audio cuts synched with video cuts (cut-cut). Although this technique has become quite ordinary by now, Kubrick's film was among the first to popularise it. It occurs in the scenes that cross-cut between the interior of a spaceship and outer space. The cut-cut underscores the rupture between the two spaces and renders it more violently.

Considering the 'brutality' of the cutting in these cases, it is then all the more striking that the only real action sequence in the film, the murder of Poole, uses editing to elide the act itself (the pincers on the pod's mechanical arms cut the cables to his spacesuit). The film conveys the murder via a series of jump-cuts and then a cut to Poole struggling. The action per se has been excised, only suggested, by this cut, or rather by the interval signified by the cut. We have no music or any other preparation to warn us: just a sort of commutation with no trace, between the before and the after of a murder, a murder no one in the film will ever explicitly mention.

Poole is literally assassinated by editing. The scissors that connect things (making a bone into a spaceship) are also scissors that kill.<sup>5</sup>

Scene Construction: Face-to-face Confrontations as Impossibility Kubrick's film employs classical film grammar, but in a very personal and selective way. We can see at the crux of its style a notion of the shot–reverse shot pattern as an impossible face-to-face encounter (except in death), or in any case an encounter approached asymptotically.

To begin with, in the prologue, there are absolutely no shot—reverse shot constructions where we might expect them. We see the head apeman notice the presence of an object, but the next shot, which reveals the monolith, also includes the ape tribe, and is not shot from the angle of his gaze; there is a 90-degree change in camera position. This type of shot transition occurs again at the end, when we see Bowman on his deathbed raising his hand towards something, and then at a 90-degree shift, what he sees, but again he is included in the shot. (It should also be mentioned that the monolith is first seen from the side and then frontally.)

One principle frequently used for dialogue scenes in 2001, especially in the second half, is the master shot that lays the groundwork for detail shots filmed from the same angle. This creates a general feeling of frontality, even when Kubrick does change camera position. The film uses this construction for all the group scenes: the apes, Floyd and the four Russians in the Hilton bar, Floyd's speech and the group of astronauts in front of the monolith.

The first shot–reverse shot in the film is very symbolic, since it corresponds to a non-encounter: it is when the flight attendant in the Orion returns Floyd's pen which he had let go. Floyd is sleeping and therefore cannot return her look. There are no close-ups in this scene save for the shot of the stewardess's special shoes.

Shot-reverse shots depicting characters in confrontation appear for the first time in the space station, and often they occur between long shots. In 2001, there is not a single shot-reverse shot of two close-ups of human characters; these are reserved for the confrontations between Hal and Dave.

For example, in the scene with the Russians, the isolated shot of Smyslov pumping Floyd for information does not get the response of a

close reverse shot of Floyd answering him, but rather a wide shot with Floyd in the middle of the group that also includes Smyslov. The same thing happens when Michaels asks Floyd a question in the Clavius conference room. Michaels is isolated from the group in a medium shot; a reverse shot then gives Floyd's elusive response. But this so-called reverse shot shows not only Floyd but also his audience, including Michaels from behind. In both these cases, the editing does not 'return the ball', and eludes any crystallisation of either difference of opinion or agreement – these 'reverse shots' give us none of the usual reciprocity between two persons.

Thus the shot-reverse shot pattern is monopolised entirely by the relationship between Hal and human beings.

This system creates absences and tension. Let us consider them more closely.

### Hal as panoptic and invisible

Hal can see, and several times we see subjective shots from everywhere through his red eye (circular, distorted images made with a fisheye lens), but he himself is invisible as such. He has 'an eye' or several 'an eye's, and this Cyclopean eye is placeless. The paradox of the numerous subjective shots 'seen' by Hal in this film is first, that they belong to a problematic subjectivity, and second, they can belong to eyes that it is not always possible to locate precisely.

This is all the more evident when at a given moment we literally enter Hal's head (into his circuitry), in order to establish that this centre is empty and that the voice does not come from any precise location, any more than the different isolated eyes are connected to a central overseeing eye. The red eye that fades and goes out when Hal is unplugged is merely one among others. The consciousness is noplace, the source of the voice is noplace, Hal's eye is noplace (since they are everywhere, and since the scene construction and the characters' actions accustom us to this idea without our thinking to wonder about it).

In the scene where Poole and Bowman have broken audio contact with Hal in order to talk privately, Kubrick shows us one of Hal's eyes in the background of the image with the two astronauts in the foreground: the

eye is always present. There is no way to visually shut Hal out, and it appears that he can see anything we see.

Certain wide shots of settings, of the centrifuge and the pod storage bay and even one of the instrument panels that contains a Hal eye, are thus capable of being from Hal's perspective too, even if they are not fisheye shots, for Hal's voice reigns over them. *Panoptic* films, whose characters are or believe they are filmed from everywhere, have a tradition in film history. Panoptic films run from Chaplin's *Modern Times* (1936) to *The Truman Show* (Peter Weir, 1998), through *Dossier 51* (Michel Deville, 1978) and *The Osterman Weekend* (Sam Peckinpah, 1983), and *The Thousand Eyes of Dr Mabuse* (Fritz Lang, 1960).

The panopticism is even more striking in the scene of the broadcast from earth to the Discovery, where we see in one image various monitor screens plus the TV show with Martin Amer and, in the middle, an eye of Hal's. These images containing the computer and its interviewer in one shot remind us of Hal's centralising role and of his capacity to 'multitask' or deal with several situations at once. The very first time Hal speaks in the film, that is, when he says 'Good afternoon' during the programme, his eye is present in two forms in the same image: the original, and the filmed image transmitted to a screen.

(By giving Peter Sellers several roles to play in *Dr Strangelove*, and previously a role involving disguises in *Lolita*, Kubrick had already been working with the idea of ubiquity, as he does here with Hal.)

### No shot-reverse shot between man in space and those watching him from earth

In the characters' communications with earth, we never see the space voyagers as they are seen from our planet. We do not see Floyd as his daughter sees him, nor do we see Bowman and Poole as seen from earth, except for the TV close-ups that are transmitted to them and that are seen by them.

Poole and Bowman (relatively) interchangeable, since no shot–reverse shot occurs between the two

The apparent interchangeability (despite their physical differences) of the Poole–Bowman pair is partly owing to the fact that we see no shot of Bow-

man from Poole's point of view, and vice versa. (The only exception occurs in the impersonal form of the spacesuit.) When the Jupiter Mission' episode begins, the two crewmates are isolated by both the action and the way the sequence is put together. They are first presented to us separately, each doing his own thing: one is exercising in the centrifuge and the other is simply shown arriving there. Then Dave, having assembled his meal tray, moves to the table next to Frank, but both astronauts watch television side by side like an old married couple who no longer need to talk to each other.

In this scene, each has his own screen to watch, and the editing pointedly isolates the men into separate shots. When they are eventually both in the same shot we see them almost from the back; and the only times they turn towards each other are in the TV programme itself – a programme they watch without registering any reaction to their own image. The next scenes show them separately: when Frank receives the birthday message from his parents, Dave is sleeping; reciprocally, when Dave shows his drawings to Hal, Frank is taking his turn to sleep.

When each in turn exits the spaceship in a pod into the void, with the other keeping track of the operation from within the Discovery, they exchange no radio messages. The two forays into space, treated symmetrically (even if the second ends tragically), occur without speech.

So we have to wait until the business with the AE-35 antenna unit, and the doubts about Hal's functioning, to see the two actually interact. At that point the framing and editing associate them: sometimes we see them together in the frame, sometimes they appear in separate shots but turn their heads toward each other.

Thus subjective shots are the exclusive reserve of Hal, that is, of the hypothetical consciousness of a machine.

In several of his films (see also A Clockwork Orange), Kubrick makes both a banal and idiosyncratic use of the subjective shot: at issue is whether there is a gulf or a communication between objective and subjective shots. This is the mystery involving the question of understanding the other. Just as Anthony Burgess tried to enter into the skin of the other (the monster) when he wrote the novel A Clockwork Orange, so the character of Hal, through whose eye we see, challenges us to put ourselves in his invisible 'skin'.

In several of Kubrick's films, we are thus placed in the uncomfortable situation of being both invited in and kept out.

For example, the usual agency with which we identify to enter into a story is either a cordial first-person voice-over narrator or a colourful, individualised protagonist. But Kubrick posits his identification-characters as perverted (Lolita), monstrous (A Clockwork Orange) or mad (The Shining), in relation to whom we do not know how to position ourselves. Alternately, he makes the main character dull, opaque and without personality, so that we cannot slip into his skin to partake in the film except for some moments, and we cannot orient ourselves to the story through his reactions (2001, Barry Lyndon and to a certain extent, the 'ironic' character of Mathew Modine in Full Metal Jacket). This does not count those strange third-person narrators who take us by the hand at some points only to leave us in the lurch at others (The Killing, and again Barry Lyndon).

# Shot-reverse shot with Hal and Dave implies a missing element (the face of Hal) and the elimination of one of the two

It is only when the confrontation between Hal and Dave occurs that 2001 becomes a film where two beings face off – but something is still lacking, since there is a face on the one hand, and only a faceless eye on the other.

It should also be noted that this eye of Hal is framed tightly or at greater distance in the *mise en scène* according to the moment, set in a vertical rectangular frame; sometimes we see the instrument panel of which it is part, and the eye is situated in reality. But sometimes we do not see it; then the eye is decontextualised, and Hal's look vanishes into the eye.

Sometimes what it 'sees' is reflected in the eye; in other words, apparently both shot and reverse shot are in the same image. The first time Dave appears in the film, for example, he is a reflection in what we do not yet know is one of Hal's eyes. In a similar vein, a superimposition between Hal and Dave will mark the beginning of the scene in which one of them executes the other, as if they cannot coexist.

In an article published in the magazine *Bref*, I wrote about this moment.

If you consider only the isolated sequence, you will say that the purpose of this dissolve, in terms of the diegesis, is to signify a simple temporal ellipse (there

has to have been time since Dave's re-entry to the spaceship for him to have put on his space helmet). But keeping the whole film in mind, we remember that there were already other superimpositions of Hal and Dave . . . in which the man is reflected in the eye of the computer/Cyclops, when Dave is conversing with Hal. In these superimpositions it almost seems as if the man's image is being eaten by the machine's ocular globe (the watcher dominating the watched). Coming after several such superimpositions, the evanescent dissolve Kubrick decides to insert at this crucial point, here an effect of narration and not a diegetic effect, also takes on the meaning of a substitution implying the imminent end of Hal. Henceforth the two of them will no longer appear in the same shot, and the man is the one who wins, in an imaginary (specular, in the Lacanian sense) duel. By putting the computer to death, the man takes its place – such that, logically, it is he in turn who in the course of events will become an eye, almost bodyless, swept up into a fantastic voyage.

## The reverse shot of Dave, after the death of Hal, is simply himself later in time

Bowman could also reckon, in the Regency bedroom/cage, that he is being watched by people he cannot see (in fact, these people are us), but when he does see someone else, it is himself. The bathroom mirror in the final sequence is the only mirror seen in the film (if you rule out Hal's eye). <sup>10</sup> It also refers back to the monolith, which is reminiscent of a large full-length mirror . . . in which you see nothing.

The only classic shot–reverse shot constructions of the film with actual over-the-shoulder shots along the axis of action occur when Dave, alone in this absurd apartment, seems to see someone, but this someone is himself, either in a mirror or at a later stage of getting old. Until, that is, the cosmic face-off of the final image confronts the Star Child and a faceless planet.

In this final sequence, we are misled by the effects of editing.

At its beginning, a shot of Dave's eye, then his face, is followed by a reverse shot of the room seen from the pod porthole. Then a shot of the eye, and another reverse shot of the room seen from the porthole – but this time it contains an astronaut in a spacesuit. This astronaut is Dave 'later', but he has not been given the time to get out of the pod: it is a mental projection of the image of Dave. 11

Then this 'other' man in a spacesuit, whom we eventually identify as a prematurely aged and wrinkled Dave, goes towards the bathroom. A subjective shot explores this bathroom. We then see Dave ... but it is his reflection, for the 'original' is partial and out of focus, on the right of the screen. Soon after Dave has seen himself in the mirror, we hear a sound of cutlery on china, indicating the presence of someone else. These sounds, which suggest the solitude of a large dining room in a vast house, act as if to quiet the surrounding reverberant din, but Dave's breathing sounds continue for a little while. Dave turns around slowly. We see successive shots of Dave moving about, and images of the bedroom seen from the bathroom; thus we identify the moving shots as his point of view. The moving camera in this 'subjective' shot, to the accompaniment of Dave's breathing, comes to rest on a character in a robe, seen from the back. In an interminable shot, this character turns around, rises, goes to the bathroom (towards us) as if he too had heard something. It is Dave, still older. This time, the breathing sounds have ceased.

The two Daves turn towards each other, but at different ages and in separate shots.

It is like a father you can never meet again.

There is no 'monolith's point of view'

Finally, the monolith is visible, it can also be touched, but we do not know if it sees – there is no shot 'seen' by it (when a single shot would be enough to subjectivise it).

2001 is therefore predicated on perpetually implicit face-to-face confrontations which are perpetually eluded and deferred. The direct encounter with the extraterrestrial that the film causes us to expect never occurs.

Overexposed Subjectivity

This leads me to re-examine the question of subjectivity and objectivity in Kubrick, as critic Mario Falsetto has done though in different terms.

Let us begin with the fact that the shot–reverse shot figure occupies a central place in film language everywhere in the world, to such an extent that films not employing it are the ones that stand out. For example, there

is the magnificent *Sayat Nova* by Sergei Paradjanov, and most of Hans-Jürgen Syberberg's works. However, of course, their conscious omission of it is yet another form of using it as a point of reference.

In Sayat Nova, characters are filmed looking directly at the camera, as if for individual and group portraits. This 'camera look' nevertheless constantly implies a reverse shot, that of our 'screen look', so to speak, so strong is the model that makes each film image a potentially subjective image, that is to say, susceptible to retroactively being transformed by the following image into 'an image seen by X'.

The cinema is unique as an art that can subjectivise the objective; it has the ability to give to an object that is shown, whatever it may be, the status of something 'seen by . . .'. Likewise, cinema can objectivise the subjective, that is, it can take a perception that is given as subjective, and render it a framed object, situated in space and in time.<sup>12</sup>

Kubrick is not one of those directors, which include Paradjanov, Syberberg and Manoel de Oliveira, who tend to refuse this perpetual beat back-and-forth of the shot-reverse shot pendulum. He maintains this structure as central, but in a highly personal way that disturbs its functioning. Instead of conserving its usual ambiguity, its intentionally insidious quality, he overplays or overexposes it. He does this by fabricating images we might call overobjective - endowing them with a precision that exceeds the needs of editing and narration - and images that are oversubjective marked strongly as being 'seen by', either by the way they are edited in (Dave's eye, the things he sees), or by the exaggerated foregrounding of usual signs of subjectivity: wide-angle distortion (like the images seen through the judas holes in a door), the hand-held camera, a first-person voice-over, and so on. Kubrick sticks to 'classical' film language, but he casts it in a stark light, and thereby makes it problematical.<sup>13</sup> Kubrick's films question before they affirm or negate, because they strip the cinema bare in its workings.

This sense of bare exposure applies to all the cinema's elements: overplaying or underplaying by actors (two sides of the same coin), baring of the scenario's form and its articulations, overexposure of music as an appropriated text. From One Strauss to the Other: the Music Cues

Because of the shock produced upon 2001's release by the choice of the 'Blue Danube' Waltz to accompany the first two outer-space sequences – a shock that was felt as pleasant and also curiously intoxicating – 2001 is a film that is mentioned frequently in discussions of film music. In fact, in my book La Musique au cinéma, I devote several pages to this one film alone.<sup>14</sup>

In one sense, 2001 behaves like a silent film in the way it appropriates and adapts pre-existing musical pieces. On this level it succeeds to a degree that Kubrick would never again attain: magic formulas are rarely a sure thing (I consider *The Shining*'s music a disappointment).

But with 2001, his seventh feature film – only after he had ordered a score composed, and later abandoned, did Kubrick find his chosen way of using music. It consisted in placing the music 'outside', in other words, not mixing it closely in with the dialogue and sound effects, but using it in broad, autonomous swaths, often borrowed from pre-existing works, songs or classical pieces. The film's numerous *silent* scenes also give Kubrick's vision the same opacity, the same obtuse and enigmatic presence, infinitely open to interpretation, as a musical theme.

Accounts of the genesis of the film confirm that in the initial plan, numerous dramatic sequences, including the murder of the three hibernating astronauts, were supposed to have music, whether borrowed or original pieces. These are precisely the scenes that have no music in the finished film. Little by little, Kubrick refined an approach that reverses the usual formula: most of the action passages such as space walks and murders go without; the music seems to be reserved for contemplative sequences.

Let us also note that when 2001 came out, only a tiny minority of film-goers knew the music of the contemporary composer György Ligeti. You could find his name by attentively watching the closing credits, but most of the audience would get up and leave the cinema, as they still do today. It was possible to believe, then, that they were witnessing a work or rather a sound-effects composition that was created expressly for the film, especially since at certain points the director actually mixed sound effects with the Ligeti music.

The same is true for the Richard Strauss excerpt, which most filmgoers discovered thanks to the movie, and for the little-known Khachaturian discovered thanks it is only with the 'Blue Danube' that Kubrick produced interlude. Thus it is only with the 'Blue Danube' that Kubrick produced culture shock – even while denying it, as he claimed that the young audience would bring to this waltz no historical association whatsoever.

Cultural connotations provoked by music can vary enormously according to the era, the country, the film audience. Today the problem is the reverse: it has become difficult for many people, myself included, to hear the 'Blue Danube' Waltz without thinking of spaceships.

With his symphonic poem Also sprach Zarathustra (Thus Spake Zarathustra, composed in 1896), Richard Strauss tried to translate into music some of the themes expressed in Nietzsche's text, and the score's opening two minutes that Kubrick used (out of a total length of about thirty-five minutes) is called 'Sunrise'. However, the triumphant effect of this music in the film seems to me no more tied to Strauss's title and the content of Nietzsche's work than the title of the 'Blue Danube' is tied to the idea of a central-European river and the colour blue. A musical piece that is 'borrowed' and integrated into a film is not some sort of enigma whose key can be found once you identify its title, its composer or any programmatic associations it carries. If Kubrick had chosen a different part of the same symphonic poem by Strauss, which is a collection of very diverse musical moods in terms of style and tempo, it seems obvious that the meaning of the sequence would radically change.

The opening musical phrase of the piece acts almost like a jingle, irresistibly reminiscent of the musical fanfares of the big movie studio logos. It memorably begins with a long, low, 'primitive' sound, and then turns into an ascending theme of extreme simplicity (doh-so-doh), the most basic intervals in music: perfect fifth, perfect fourth, octave. The vertical and triumphant quality of this theme immediately strikes the listener, and its effect seems to be universal in doing so.<sup>15</sup>

Then comes the play of meanings that is normally created by the restatement of a theme through different scenes, meanings that accumulate and form a discourse. In 2001, we hear the same fragment of music in relation to different kinds of images: of grandeur (stars and planets in orbital conjunction, the triumphant apeman in low-angle shot, the Star Child as big

as a planet), but also of aggressivity and destruction (the ape's jubilation in smashing the skeleton). The music thus wordlessly narrates all the ambivalence Kubrick wished to convey; for him, in this tableau of evolution, the exaltation of life and joy of destruction are inextricably linked. His next film, A Clockwork Orange was even more explicit in this regard.

His next film, A Cookadon State of State of State of Peace and Cosmic exaltation (even if we ignore the lines of Schiller in the sung text), can be associated with the most shocking scenes – rape, wars of conquest, suicide – and that this works just as well.

We might say that the musical form of the fanfare, as both a glorious and tragic announcement (or both at once) runs through much of Kubrick's cinema. For example, a synthesizer is used in many a passage in *A Clockwork Orange* and *The Shining* for fanfares; and of course, fanfares play a major role in Alex North's score for the biblical epic *Spartacus*. In a sense, the fanfare reminds us that all Kubrick has done is make movies about war and hunting (in different forms), certainly films that always have predators and prey.<sup>16</sup>

The Requiem for choirs, soloists and orchestra by the Hungarian-born Austrian composer György Ligeti (born 1923), which is heard with each of the first three appearances of the monolith, and which on the third occasion segues into an orchestra piece also by Ligeti, Atmosphères, was composed between 1963 and 1965. Again, it is not the title of the piece that counts here, or the sung text – Kyrie eleison, 'Lord, have mercy'—which is not intelligible in any event. What we do remember from it is the feeling of its vast, continuous choral crescendo in rising and falling undulations. It can be heard either as a collective lament, owing to the continuous sliding by half-tones of the interweaving melodic parts, or as an attack or threat, because of the sense of a crowd or mass, or even as an eschatological anticipation (in other words, waiting for a sacred event), culminating in high chords. It would be a betrayal of the effect of this piece to try to close off its resonant chains of signification by trying to assign a more precise meaning to it

Listening to this part of the Requiem, it is impossible to decide if this is a human sound or not, instrumental or not: an ambivalence entirely fitting for the ambiguity Kubrick sought

The recording style popular in the 60s for contemporary music consisted of diluting the sound in heavy reverb, either during the recording itself or added in the mixing via an echo chamber. Such is also the case for this version of Ligeti's *Requiem*, in the spirit of a period that loved all-enveloping, floating and diluted forms, and against the grain of what would be 80s tastes. Kubrick would not have achieved the same effect with a more recent, more analytical recording style, with the dry acoustics that allow better discernment of the instrumental and vocal parts.

Regarding his much-discussed choice of the 'Blue Danube' for the space sequence (some people told him this waltz would create parasitic associations with orchestras in grand hotels and Viennese operettas), Kubrick declared, 'Most people under 35 can think of it in an objective way, as a beautiful composition. . . . It's hard to find anything much better than "The Blue Danube" for depicting grace and beauty in turning. It also gets about as far away as you can get from the cliché of space music.' It is surprising to think that the music he originally tried out for this passage, and almost adopted, was the Scherzo from A *Midsummer Night's Dream*. Although this piece is also very rhythmical, it goes at a more rapid tempo and its sonorities are much freer, lighter, like gossamer. This case illustrates yet again how many possible solutions might exist in scoring the film.

According to Andrew Birkin, the Strauss waltz came as a gift from the gods. 'In fact, this choice came about completely by chance. The projectionist had fallen asleep and had let the film run while his radio was on ... Stanley really showed his open-mindedness and was able to seize the opportunities that presented themselves to him.' 18

But in fact – and here we must add a clarification that will always come up in speaking of film music – Kubrick did not use the 'Blue Danube' Waltz per se as much as a specific recording of it by the Berlin Philharmonic, a recording characterised by the sumptuous, capacious, mellow and homogeneous sonority obtained by Herbert von Karajan. The piece comes in only twice during the story, during Floyd's two space flights; but we remember it better than the other music because it is associated with the first images of the future that the film gives us. Aided by the waltz, the film treats the space flights as sequences in a silent film, since there is nothing

else on the soundtrack. Characters move and even talk (in the second flight between the space station and the moon), but in silence.

At the same time, this silent image creates a certain discomfort, a sense of emptiness and luxurious coldness, characteristic of Kubrick and appropriate to the mystery he weaves. Something is missing in all this dancing plenitude. I cite Kubrick's use of the 'Blue Danube' as an example of what I call anempathetic music — music whose ostensible indifference to the situation on screen, implacably continuing no matter what, creates an expressive contrast. We can also see a suggestion of eroticism in it, thinking of the penetration of the spatial wheel by the Orion rocket. In the world of 2001, as at the beginning of *Dr Strangelove*, only machines make love.

Several of the silent shots we see with the music of Johann Strauss are taken from scenes that originally were to have dialogue. In the screenplay, the captain of the Aries did not just join up with Floyd but spoke with him; similarly the stewardess, the captain and the co-pilot originally exchanged some lines.

The total absence of sound apart from the waltz also gives to the round ship Aries an insidiously menacing quality, in the way it sends out its pseudopods like claws and 'looks' through the two eyes of its portholes. This subtly animal quality, like a stalking feline, is very important in the film. The forms of the film's space machines and vehicles may be dictated by technological and practical imperatives, but at the same time they have pincers and jaws to catch things, eyes that survey and mouths that can crush.

Kubrick also insisted on dialling up the 'Blue Danube' a third time in the closing credits, like a parade, though he reserved the Ligeti *Atmosphères* for orchestra for the intermission.

The 'Blue Danube' for orchestra is not just a theme and a waltz rhythm; it is also a story. In the version of the 'Blue Danube' that was chosen, what is important for the startling audiovisual match that jumps across four million years is the string tremolo that starts this cue, and which resounds like a First Noise. In this Karajan recording, Johann Strauss's music itself tells the story of a double genesis: a melody from the simplest notes of the scale, and a rhythm from a tremolo. The three central pieces used in 2001 – the dawn of *Zarathustra* and its Arpeggio, the opening of the 'Blue

Danube' on the perfect major chord and the 'Kyrie' from the *Requiem* – have ascending motion in common, in their melodic development and in their dynamic crescendi. This contributes powerfully to giving the film its optimistic character.

After 2001, Kubrick would go for funeral marches instead, in A Clockwork Orange as well as in Barry Lyndon, while The Shining begins with an arrangement of the 'Dies Irae' by way of Berlioz and Wendy Carlos. Or, as we have seen, he does a parodic and/or ironic number on luminous and joyful music in A Clockwork Orange. From this perspective, 2001 would be his last positive film before Eyes Wide Shut.

The short excerpt from Ligeti's Lux aeterna for a capella women's choir magically plays over the shots of the moon bus going towards the Tycho crater and the monolith therein. If it bears a precise relationship to the 'Kyrie', whose restatement it precedes, this is not necessarily because it was also composed by Ligeti, but mainly because it too is based on an unintelligible singing voice, and on a sort of shimmering of high notes on the edge of formlessness. But here, the female voices are in the high register and they are heard reverberating as in a church, transcendent. The Lux aeterna is the closest thing to religious music heard in the film, reminding us perhaps of the messianic emphasis of some science fiction.

The Adagio from *Gayaneh*, which marks the opening of the central episode on the Discovery, consists of slow, dreamlike song, played almost exclusively in the strings, with some notes from the harp. *Gayaneh* is a folkloric ballet in four acts, composed in 1942 and reworked in 1952 by the Soviet composer Aram Khachaturian (1904–78), its 'plot' combining amorous rivalry and political struggle among the Kolkhozians. The work was long unknown – except for the ultra-famous sabre dance of the fourth act (a classic of circus and music-hall) – until Kubrick took its beautiful Adagio which is inspired by popular Armenian music.

This melancholic interlude illustrates how contingent film music really is, since it does not allow us to forget, as we hear it over the images of the Discovery, that all sorts of other pieces of music would have been possible. And this is what Kubrick wished. This piece helps to give the scenes a discreetly poignant sense of solitude, but it still does not become one with the images. It remains apart, alongside, creating an atmosphere all by itself. Its

meaning does not stick, does not completely impress itself on the image.

So we have here two very distinct cases. Richard Strauss and Ligeti become indissociable from the scenes in which they participate; they seem to impregnate the situation and in turn be impregnated by it. Conversely, Johann Strauss and Khachaturian tend to slide or refuse to stick to the image – and our emotional response depends on the slightness, even the fragility of the audiovisual association, whether happy or melancholy. Meaning does not completely 'take', which is why there results a heart-rending feeling of contingency and evanescence.

What is certain is that, in the choice of this excerpt from *Gayaneh*, Kubrick sought a strong contrast with the preceding sequences of interplanetary travel. From the whole symphony orchestra we move to strings only, from major to minor key, and from a dancing totality to a forlorn song. By gradual degrees, the film has drifted to great distance and solitude, preparing for our passage to other worlds.

The uses of the 'Blue Danube', the *Lux aeterna* and *Gayaneh* have some points in common: all three are associated with specific travel sequences, and all obey the same structure, as each cue is divided into two parts to frame a dialogue scene. The 'Blue Danube' Waltz accompanies the wordless sequence of Floyd's voyage, *Lux aeterna* the flight of the moon bus towards the monolith and *Gayaneh* the exposition portion of the Discovery mission. The fact that none of these music cues recurs elsewhere (except for the 'Blue Danube' in the end credits) reinforces the role of each as a marker of a sequence and of a particular atmosphere.

On the other hand, Zarathustra and the 'Kyrie' of the Requiem run through the entire extent of the film and unite the outlying sections, the first being associated with the idea of conjunction of heavenly bodies and of triumph, the second with the presence of the monolith.

Intervening on two occasions, in the intermission (when a screening has one) and then in the 'cosmic trip' sequence, Ligeti's *Atmosphères*, composed in 1961, is an astonishing orchestral piece on the threshold of formlessness, close to what could be imagined as the sound of matter in continual transformation. It is like one single sound that slowly evolves; sometimes individualised sounds emerge from it, and even clear sustained notes of trumpets; at a certain point this sound reaches its height in stri-

dent flute sounds, before plunging again. Certain sonorities that resemble electro-acoustic music are created on a piano by two players who directly manipulate the strings with such materials as brushes, brooms and cloth. In choosing this music, Kubrick may have been attracted by the notion that the listener has a hard time telling what s/he is hearing (classical instruments? synthetic sounds?). At the same time we cannot assign any precise representational meaning to these sounds that would render them 'sound effects' in association with the images, which could help give the image too precise a meaning.

In a good many other films made before or since, synthetic sounds have become as irremediably dated as the electronic instruments used in the 50s for films like Hitchcock's *Spellbound*. Kubrick thus made a truly inspired decision.<sup>19</sup>

Aside from that, what do all these pieces of music have in common? The commonality is precisely that they are completely unaware of one another, as much through their stylistic differences as their historical eras, their instrumental colour, their sound – in other words, in all respects. Where Alex North's score, through its symphonic unity, would have tied together the different parts of 2001 (which would have yielded a completely different work), the samples of borrowed music both tear the film apart, isolating its different parts from one another, and create its unity through their very incommensurability.

A Drama of Sounds and Voices: Towards Silence

Sonically speaking, 2001 is a stripped-down film, despite the stereophonic sound that is used to greatest advantage for the choral and symphonic musical excerpts.

The way the film deals with voices – and remember that dialogue occupies a mere 42 minutes of 160 – is very subtle and resides in small differences of tone, resonance, accent. No one raises his voice, let alone shouts; the slightest stumble, the least note of exasperation in a line thus becomes very noticeable. We find this, for example, when Poole allows himself to become impatient with Hal, who has been reiterating his accomplishments ('Of course I know all the achievements of the 9000 series'); or when Hal repeats himself ('Just a moment, just a moment'), he who nor-

mally speaks without redundancy and in fluid and detailed phrases. The three accents heard in the film are Russian, American (the Americans and Hal) and English (the BBC anchor and interviewer); in general, Kubrick has avoided full-bodied and richly timbred voices. This strategy lies at the other end of the spectrum from *Dr Strangelove*, which has some enormous voices (George C. Scott) and some strong accents (Peter Sellers). The prevailing idea here is ordinariness, naturalness and professional efficiency. This is life from day to day, and just because the characters live in 2001 (a mythical and distant date in 1968), they are not going to take on a solemn, sententious tone.

However, slight differences contribute to animating the film and creating a fabric of sounds and voices.

Anyone who has 'audio-viewed' 2001 remembers the absolute silence in the shots of movement through outer space. It is important to note that this silence exists only for certain very specific shots (no more than two or three minutes in 160), and that Kubrick renders it unforgettable by leading up to it gradually.<sup>20</sup>

First, for the effects and ambient sound heard inside the spaceships, 2001 uses quite a modest vocabulary. Taking a cue from the famous Forbidden Planet (which had the audacity to eschew instrumental music, and whose 'stellar' ambience was created by a mix of electronic sounds created by Louis and Bebe Barron), 2001 avoids avalanches of blips and beeps, and its ambient sound is simple, consisting of insect noises in the prehistoric section and varying degrees of air hiss and engine rumble in the spacecraft. Each setting has its own sound or has none at all, like the Clavius conference room which is totally silent.

The equally restrained use of beeps and alarms for dramatic purposes is confined to two scenes, both without dialogue: when Hal murders the three hibernating men, and when Dave re-enters the Discovery through the emergency door.

For the sequences of space travel, when the camera is filming from without like an eye floating in the void, Kubrick appears to apply a simple principle faithful to physical reality: since there is no sound in a vacuum, there will not be the slightest sound linked to operations or movements of machines.

So what is heard over these many shots 'taken from' outer space, shots in which the camera shows a space flight or an astronaut working in the void? Kubrick develops a pattern that progresses through the film as follows:

- 1. To begin with, we hear *orchestral music* (Strauss, Khachaturian) to solve the problem: this music bathes the whole of the sequence, interior and exterior shots alike, without any other sound of speech or noise in the exterior shots.
- 2. Then, after Dave Bowman's sortie and for all the scenes in space attire, we hear the *breathing* of a cosmonaut in his helmet; Frank's death is thus dramatised when we no longer hear it. Over the breathing is superimposed a constant high hiss. This can represent the cosmonaut's oxygen flow but can also suggest, when Dave (in his spacesuit inside the Discovery) disconnects Hal, something that is being implacably drained of its air.

The first time we hear these human breathing sounds, which exemplify what I call objective-internal sound, is in the shot before the initial foray into space and where Dave, having put on his spacesuit, walks into an airlock.

Note that the hiss that continues over the entire scene in outer space does not get interrupted when we cut to Frank inside the Discovery. So we are not sure whether Dave is being heard by Frank by radio or if there is a slippage or mismatching between the point of hearing (in Dave's helmet) and of the point of view (in the Discovery). This example indicates the complexity of questions of *listening* (the audio equivalent of spectatorship) in film.

The breathing sound is both reassuring and disturbing, as if our head were in the maw of a lion. We can discern slight changes (for example, when Dave opens the panel containing the antenna unit), but never any pronounced or noticeably identifiable variations that might emphasise one audio moment more than another, or a particular physical effort or gesture.

3. The arrival of absolute silence in the film corresponds to Frank's demise. (Until this point, as I have said, shots from the 'point of view' of the void were accompanied by music, or by objective-internal sound.)

Frank's death is subtly anticipated in the soundtrack by a slight intensification of the air hiss over the series of jump-cuts showing the pod approaching.

So Frank dies, and all shots from then on which show the pod and Discovery from outer space, after eighty minutes of preparation, are seen in absolute silence. *Except for one moment*: a strong dramatic licence is taken briefly when we hear Dave's 'on-the-air' voice calling Hal from his pod, trying to get a response: 'Do you read me, Hal? Hal, do you read me?'<sup>21</sup> These words and the beginning of Hal's answer that follows are the sole words heard in space during the entire film. After this, the dialogue continues over the images of the two adversaries, never overlapping: the eye of Hal in the Discovery, close-ups of Dave's face inside the pod.

A very common audio convention today, when the script has an exchange of messages over the airwaves, calls for human chatter in the midst of static and radio noise while we see exterior shots of planets or spaceships. We hear this in *Alien* and many other films, but actual news footage has also trained us to expect this. None of this occurs here. Besides, in 2001, when one astronaut goes out into space and the other remains in the spacecraft, with his spacesuit partly on and in visual contact with him (a situation that occurs twice), they do not deem it necessary to say a single word. Just as on the visual track the shot–reverse shot figure is used only for Dave–Hal dialogue, the exchange of dialogue in space is also reserved exclusively for this pair.

4. Finally, for the last section, when Dave's pod is taken in charge by an invisible force and the 'cosmic trip' begins, the dense and diffuse music of Ligeti's *Requiem* returns. This is mixed in with rumblings that could well be a motor – thus a sound in the void. But of course, all notions of realism or unrealism become irrelevant. After all, we have already accepted that a static camera is stationed in space, and is 'watching' the Discovery go by like an eighteen-wheel truck on the highway.

Nevertheless, Kubrick's example became a point of reference; it seems to have created an immutable rule for sci-fi soundtracks. So when Ben Burtt's team of sound designers set out to invent sound effects for *Star Wars*, they were at a loss when faced with this taboo that decreed no sound

in space. Until, that is, Lucas officially gave them permission to break it: let us treat space as if it were air, he told them. And that is why spaceships began to rumble again like tanks or roar like racecars (since another Lucas innovation consisted in showing spaceships move around five times faster than anyone had done before).

To sum up the audio scenario of 2001, the second and third sections

gradually bring on more noises and gradually take out music.

For the two sequences of the Orion and Aries (going toward the moon), the only thing heard is the symphonic version of the Strauss waltz; we are in a technological universe that is unnaturally silent. The two parallel scenes of Floyd's discussion with Smyslov and Floyd's speech to the scientists on the moon allow us to hear only either extremely subtle ambient sound or none at all.

The first time we hear sounds associated with movement in space occurs inside the moon bus. In that scene muffled sounds can be heard, with the rhythm of a sort of secondary pulse like a pump, on top of the music of the Lux aeterna, which is gradually decreasing in volume. Later, at the beginning of the Discovery section, the Khachaturian music mixes in much more with speech and noises in the ship, with the footsteps and panting of Poole as he exercises, and even with the warm chorus of Poole's parents as they sing 'Happy Birthday' – without truly fusing with them, however, since the Khachaturian retains its own rhythm and space.

After that, music disappears from the soundtrack for a long time (aside from the short BBC music logo), not to return until the spectacular cue of the third reprise of the Ligeti *Requiem* in the following section, 'Jupiter and Beyond the Infinite'.

It is in the section richest in action that the 'orchestra pit music' (or non-diegetic music) stops, once it has led us into the year 2001.

Hal and the Humans: Voices and 'I-voices'

The voice of Hal would be justified in receiving a whole chapter of its own. I have written about it in my book *The Voice in Cinema* as an example of both an 'acousmêtre' (a character who exists as an acousmatic or invisible voice, with no place and supposedly able to see all, know all and do all), and an 'I-voice'. I call the 'I-voice' (so named because it resonates in us as if it were

our own) a voice outside a film's spatial reality, with no acoustical indices of distance or direction that might situate it in an identifiable space. The I-voice, in order not to be contained, is itself a container and insinuator.

Hal's voice possesses all these properties, and Kubrick takes care to have Hal's voice closely miked, with no spatial indices or reverb, while the voices of other characters are often heard as if at a distance, or reflected off walls inside the ship. The reverb on Bowman's voice, for one, varies in different spots of the Discovery centrifuge, and thus the voice gives credibility to this set as a real space.

In the confrontation between Hal on the Discovery and Dave in the pod, Dave's voice, even when we are in his pod, is distant and weakened, to underscore his position as David against Goliath. Hal's voice, on the other hand, is 'spaceless', with the same soothing and ubiquitous presence no matter where it is.

When Dave, back in his spacesuit and helmet, disconnects Hal, and when he speaks briefly to tell Hal to sing, the man's voice sounds lightly filtered, suggesting transmission through some technical means, in contrast to his breathing, which remains close and present.<sup>22</sup>

Returning to the scene of Poole and the recorded birthday message, we should note that three levels of voice meet. The parents' voices seem distanced and diminished by the transmission; they are heard with no reverb. The voice of Hal, when he adds his 'happy birthday' to Poole, is warm and close (this is the first time we hear Hal 'live' rather than in the TV programme). And the voice of Frank, who is the only character present in flesh and blood, is slightly reverberant as if in a catacomb, suggesting the funereal atmosphere of this necropolis flying through space that is the Discovery. Hal and the human characters, then, belong to strikingly different sonic spaces.

From one end of the film to the other, we do not hear in Hal's voice a single physical indicator of breathing, swallowing, throat-clearing or anything else that I call *materialising sound indices* – and this helps make it disembodied (the opposite of the harsh, grating voice of Alpha 60 in Godard's *Alphaville*). Incidentally, it is impossible not to admire the quality of Douglas Rain's diction: he maintains a remarkable balance between smoothness and pedanticism, firmness (even authority) and seductive-

ness, gentility and aloofness. In the brilliant scene of the computer's death, this voice has an unforgettably dreamlike quality and seems mentally to take leave of itself (the way Rain repeats the name 'Dave ...'), and its phrasing is impressive, for example when it says, 'My mind ... [silence] . .. is going.'

No one forgets the little song the computer sings as it is dying. The idea came from Arthur C. Clarke, who had heard a computer sing it in the 60s, using one of the very first synthesized voices. 'A Bicycle Built for Two' was written in 1892 by Harry Dacre, one century before the birth of Hal:

Daisy, Daisy
Give me your answer, do
I'm half crazy
All for the love of you ...

In this tender and naïve song, the suitor dreams of riding a tandem with his beloved Daisy. As Hal sings it in the film, it slides inexorably downwards to indicate the death, or loss of consciousness, of the computer.

The technical device used (and fairly well adapted in the French dub, I might add, where the voice was made to sing 'Au clair de la lune') did not consist in simply slowing down the recording of Douglas Rain's voice; this would have slowed down the tempo as well. Only the pitch and the timbre change, while the rhythm remains constant.<sup>23</sup> To obtain this effect in 1968, before the effects made possible by computers, Douglas Rain sang several versions of the song at faster and faster speeds, after which, in the editing stage, the rerecording was done at slower and slower speeds. Thus his voice always remains at the initial tempo, but plummets lower and lower and gives the effect of a record playing at ever slower speed. At that time not so long ago, when the compact disc did not exist (and would not enter the market until the early 80s), it was a familiar experience, and even an amusing pastime, to put a 45-rpm record on at 33 or vice versa, and to play with record speeds – impossible today with commercial digital players. We must add that a 'digital' slowdown that can be created with computers today would not have yielded as good a result, because the electronic texture of such digital manipulations would be too obvious.

Acting and Mood: Solemnity and Spontaneity

2001 is a film that reputedly was acted in an intentionally neutral and cold manner throughout. I would simply like to suggest here that the story is rather more complicated and, in the restrained palette the director chose, the smallest nuances count.

The acting is certainly restrained but it is not insipid. The complexity of our response results from the subtle relationship between framing and action, between camera style and performance.

A scene such as Floyd's speech, if watched in isolation, is little but Kubrick ironically observing a social ritual (pleasantries, scattered applause), shot by a static camera. However, if we compare it with the scene that follows – the men's conversation in the moon bus – we see that it constitutes a stage in a gradual progression.

The later scene, where Floyd, Michaels and Halvorsen look at photos of the monolith over coffee and sandwiches, seems merely to extend the preceding one by supplying new plot information. However, there is a subtle and simple variation of style and atmosphere. First, when the scene opens on the bus interior, the camera moves, which it has not done for a long while, in a slightly unstable dolly-out (almost as if hand-held) from the cockpit back through the cabin. The actors, headed by William Sylvester as Floyd, set a different tone from that of the preceding scene: here they are more like cowboys in a Western chatting around a campfire. They have lost the formal stiffness they had in their business suits. Now in their space-suits (without helmets), they look like robust, direct, pragmatic Americans.

The whole scene is arranged so that its momentous revelations (this object is not from the moon; it seems to be an expression of a non-human will) are made in the most quotidian tone, in an atmosphere both cordial and reserved. The dialogue packages these astonishing revelations in simple, familiar formulations: the unearthed object is called 'the damn thing'. When Floyd/Sylvester smiles at the idea of a monolith 'deliberately buried', he does so like a scientist intrigued by a new problem, relishing the work ahead. These men we see are research specialists who are travelling on the moon. They are not going to move around with dramatic pomposity in a solar system they have learned to approach as a field of study and a series of scientific challenges. Kubrick's choices here are

guided by his concern for truthfulness; the film aims to show how we might approach the problem if we were in their situation.

As for the scene of the discovery of the monolith – the first scene filmed it is simply admirable for the manner in which it was conceived as well as the manner in which it was executed. For this first contact shown between human beings and a mystery from outer space, the director strikingly combines solemnity with spontaneity. The solemnity is conveyed through the processional character of the cosmonauts' descent into the monolith excavation pit, to the sound of the deeply moving music of Ligeti which in this context could almost represent a multitude joining the men and pressing against the wall of the object (which is shown from above, as in the beginning of the film, and not like a sacred monument shot up against the sky). The spontaneity is obtained by the (apparent) use of the hand-held camera, which does us the favour of bringing us into the group by adopting the point of view of one of the astronauts, letting us see over his shoulder as the men walk towards the monolith. There is spontaneity also in the group's loose meandering towards the slab; they move in relative disorder, and the gesture of one man inviting his compatriots to pose for a picture feels completely spontaneous. Likewise, Floyd touches the surface of the monolith with his hand, in a shot that is both extraordinary and without stiffness. It shows the story's central mystery, but not imperiously. Such a treatment heightens rather than diminishes the scene's grandeur.

In other cases, the natural discretion of the scenes reinforces how simply moving they are. I am thinking of the programmes and messages recorded or relayed from earth, all of which have elements of spontaneity. Floyd's little girl squirms and fidgets and scratches her back; Dave and Frank before the BBC cameras begin with a bit of hesitation and a little laugh (Kubrick may well have decided to use an out-take); and Poole's parents whisper to each other in the middle of their weekly message that they know is being recorded. This spontaneity, boxed up and framed like a portrait, like a snapshot that reduces a life to the dimensions of a portable photograph, moves us and speaks to us as only truth can do.

The Movie's Concept: Careening away from Earth
The paradoxical notion of making a film about 2001 where 2001 would be

a year like any other seems to have haunted Kubrick and inspired his desire to mix seamlessly the everyday with the futuristic.

For example, the concept of the entire second section, which introduces us into the future (the flight on the Orion, the arrival at the wheel-shaped space station), is to show the extraordinary as ordinary. We are going to the moon, but it is a routine flight and no one is surprised to see a ballpoint pen floating in zero gravity. The pen is just the futuristic equivalent of an object that, when dropped, you return to its owner. To accentuate the banality of the future, an announcement about a sweater left by a lady in the Orbiter Hilton restaurant is heard twice in the space station ('A woman's cashmere sweater has been found').

When Floyd arrives at the station, the first sentence heard in the film establishes normality: a hostess says, 'Here you are, sir.' Floyd's first gesture is to close the zipper of his small portfolio (in Tarkovsky's *Solaris*, the corresponding scene is more burlesque: the astronaut who arrives in the space station trips on his own shoelaces and falls on his face). Then, various 'Good mornings' assure us that in space, people go by the same clocks as on earth, as well as its formulas of politeness: 'Did you have a pleasant flight?'

The set for the station includes vast picture windows through which the rotating earth can be seen, but no one looks at the show, let alone comments on it in amazement.

The little girl Floyd talks to from his 'picturephone' booth – Kubrick's own daughter Vivian, who later would make a documentary about the filming of *The Shining* – seems posed in place like a doll; you would think she had always been there before the conversation ever began.

During his phone call, Floyd raises his voice, as the first telephone users did, and the little girl's voice is filtered. We hear no bleeps or futuristic sound effects accompanying the actions of dialling a number, making the connection or hanging up.

During the conversation the girl, wearing a pretty princess dress, fidgets and is only barely able to sit still. It is amusing to note the many lateral or vertical reframings to keep her centred in the frame (a vertical frame, the format of an identity photo), which would lead one to suppose that in the world of the film there are robot cameras that can follow people who are on the videophone.

The conversation between Floyd and his daughter has no delays between questions and responses. This is the first stage in a series of communications that will underscore the progressive movement away from earth. Later, in the recorded programme Bowman and Poole watch while dining from their trays, spectators are told that there was a delay of seven minutes between the interviewer's questions and the answers, and that this delay has been edited out. Thus the spectator is made more aware of the recomposed, artificial character of the interview, all the greater because the invisible Hal is participating and can rival the interviewer with diplomatic and stereotyped formulas. But communication is still bilateral at this point.

Later still, Poole receives the recorded message from his parents, which seems all the more pathetic and touching in that visually it only occupies a very small subsection of the screen (except for one brief insert shot). The soundtrack contrasts its demonstrative warmth with the oceanic serenity of the Khachaturian music. Here, communication is no longer reciprocal. The parents send the message as an audiovisual letter to someone whose reaction they will not see. The distance the camera obliges us to take from the scene (a distance also created for the sound of human voices which gets lost in space) and the presence of the Khachaturian music that overarches this sequence are the two elements that 'refrigerate' this affective warmth.

As for the content of the birthday message, it reminds us of the every-day, earthly aspect of Poole's life: he has bills to pay, he is an astronaut at such-and-such a level. But all this is presented in such a dry, impersonal mode that we do not remember any of the information we are exposed to there is nothing in it to want to hang on to. Additionally, the fact of the birthday underscores that we are in a world where counting time in hours, days, months, years is nothing more than a convention, maintaining earthly rhythms in a universe that does not recognise them.

Each time, the size of the subscreen showing the character 'in communication' gets smaller with respect to the size of the screen itself. Little Vivian is shown closer up than the BBC interviewer, and in turn the latter is shown closer – except for a brief shot – than Poole's parents.

Floyd's video briefing, also unilateral and prerecorded, seen just after Dave murders Hal, has no close-ups. Floyd is but a small dot in the vast

movie screen, and the video image flickers so much that we no longer even know who we see in the image; it is hard to be sure it is Floyd.

These final communications with earth are messages from people who no longer 'see' the characters. The very last one is even set off automatically, without taking any account of the tragic reality of the survivor who receives it.

But these people all speak without grand words and in the same cordial and professional manner. Everyday reality recedes farther and farther, but with no drama or emphasis. Very gradually, the film leaves behind the shores of the ordinary.

Rhythm: from Slowness to Rupture

By comparison with the roaring speedboats that modern sci-fi films frequently are these days, 2001 is a slow-paced film, moving along like a grand ocean liner of yesteryear. But this tempo is necessary to change our perception, to adapt it to a new space. 2001 is a film that accustoms us to outer space, and is accordingly very gradual in its rhythm.

Other films, beautiful though they may be, often take us on our visits to the galaxies like hurried tourists. We hardly have time to see the landscape and to feel what the billions of miles mean. Who other than Kubrick has tried to make us feel what it is like to live in a world where there is no up or down? 2001 gives us time to shed our usual spatial and temporal orientations; to go round with the characters, not just watch them go round as gawkers at a country fair.

Of course, this slowness in 2001, particularly noticeable in the second section (the voyage to the space station and the arrival on the moon), can be maddening for those who do not easily settle into the film. The same goes for the static quality of the more sterile scenes (Floyd's conversation with the Russians and especially his speech on Clavius),<sup>24</sup> scenes whose expository character Kubrick accentuated rather than disguised.

Similarly, it is without the slightest haste that Dave disconnects Hal and we see his memory circuits leave their housing. And the sound of Dave's breathing, hardly accelerated at all at this tension-fraught juncture, contributes to regulating our own rhythm as spectators.

The slow pacing also has to do with the image format. 2001 is conceived

for Cinerama cinemas, where the size of the screen is itself a sensory event. Stereo sound, in the magnetic sound version, is also an experience in itself which allows for a slower rhythm (as Tati for his part attempted to do in *Playtime*).

The time of the projection is thus transformed into a ritual.

Entire sections of 2001 are devoted – uselessly in terms of suspense or the progression of the plot – to the act of moving from point A to point B, as part of a mission. In much the same way, *Dr Strangelove* is constructed from the alternation between interior scenes (where for varying reasons characters are isolated and shut away) and scenes of a mission, such as that of the bomber. And the shots of Halloran in *The Shining* going to the Overlook Hotel, alternating with the scenes inside the hotel, are full of pathos, particularly when you consider that he is going to be killed instantly.

Kubrick strongly emphasises the dead time sometimes involved in going from one place to another. He often refrains from adorning it with any action whatsoever. It thus becomes a sort of ritual in itself, a long preparation for a moment of breaking or rupture. This break occupies only an extremely brief moment – more than brief, a non-moment, a *commutation*.

#### Notes

- 1 Michel Ciment, Kubrick, p. 107.
- 2 But which is found in numerous films of the 50s and 60s made for giant screens, such as Todd-AO and Cinerama spectacles.
- 3 Dumont and Monod, Le Foetus astral, p. 149.
- 4 [By this term, which Chion has adapted from the French word for an electric switch, *commutateur*, he means an abrupt, instantaneous switch.

   Translator.]
- An ambivalence that I have already found in David Lynch who, like Kubrick, is obsessed by the question of immortality. See my book, *David Lynch* (London: BFI, 1995, trans. Robert Julian). The cinema is the art of ambivalence *par excellence*.
- Just as towards the end of the film we see Dave's eye in extreme closeup during his 'cosmic trip'. Being limited to one eye (like Hal before him), he loses the psychological connotation of the 'look'. Later, on the other hand, in the scene of the Regency bedroom, Kubrick shows Dave

from head to foot and returns his body and his look, thereby strongly soliciting our identification with the character – but all the better to trap us. There is apparently someone else Dave hears and sees, but this someone else turns out to be himself at a later age, and we are thrown back out, obliged again to interpret rather than identify with him.

- 7 [The panoptic text has perhaps reached its millennial apogee in TV reality shows such as *Survivor* and *Big Brother*. Translator.]
- 8 The vertical frame for the eye echoes the shape of the monolith.
- 9 Bref, no. 42, Autumn 1999.
- 10 Dumont and Monod emphasise the sequence in the Discovery where Poole and Bowman watch themselves on television: 'this show is the only "mirror" into which the men ever look during their trip toward Jupiter' (p. 87). But do Poole and Bowman see themselves in Hal's eye?
- 11 I am suggesting that the astronaut we see could at this moment be Dave-seeing-himself-in-advance-where-he-is-not-yet, in a mental representation of his future.
- 12 Considered this way, sound plays an ambiguous role, for it is much more difficult to situate a sound as being subjective rather than objective, or inversely. We never know if a character hears what we hear, and if we hear what he hears.
- 13 Journalistic rhetoric, unfortunately too often used in scholarly research, which talks in this case of 'subversion', 'corruption', and so on, seems to me to be the least intelligent way to understand this process and ignore the dialectic that subtends it (and whose supposedly 'subverted' system comes out necessarily reinforced).
- 14 Michel Chion, La Musique au cinéma (Paris: Fayard, 1995), pp. 345-52.
- 15 Its 'primitivist' quality is equally due to the unsubtle sounds of the timpani. The gesture of the apeman beating with the bone, which we see during one of the cues containing this musical piece, suggests the gesture of a percussionist which Kubrick had once been.
- 16 In this connection, one of the other temp tracks used by Kubrick during the editing of 2001 was, characteristically, Mahler's Third Symphony. This piece has numerous fanfares, but also a chorus and a *lied* for soprano and orchestra on a text of Nietzsche's *Zarathustra*.
- 17 Agel, p. 88.

- 18 Studio (Paris), no. 144, April 1999, pp. 118-19.
- 19 Musique concrète, of which I am a practitioner, is difficult to use in film, contrary to common belief. The sounds it brings into play have a marked tendency to take on too realistic a signification. It would be rather like using the contents of a Pollock painting or a Brancusi sculpture as parts of a movie set.
- 20 As I shall show in the paragraphs that follow, first there is the full audio spectacle of the symphony orchestra, then a more rarefied musical sound (*Gayaneh*'s strings), then a single, simple sound (breathing) and finally, silence.
- 21 My term 'on-the-air' describes sounds present in a scene that are supposedly transmitted electronically (by radio, TV, and so on) that are consequently not subject to 'natural' laws of sound propagation.
- 22 This is a contrast and a contradiction: we hear the spoken voice of Dave 'from outside', his internal breathing 'from inside'.
- 23 I thank my American students at the Paris Critical Studies Centre for this observation.
- 24 Each time I see the film, this scene is hard to sit through, but the function of its tedium is clear in the context of the whole film. Any 'livelier' treatment would throw out of balance everything that follows.