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Style/Substance

Grand designs: television, style and substance in *The Time Tunnel*

Jonathan Bignell

This chapter argues that the US science fiction adventure series *The Time Tunnel* (1966-7) is about television: about the capabilities of the medium, the experience of watching it and the technological apparatus that television comprises. Visually, the series often adopts a grandiose, excessive visual style, especially in the opening episode focused on here. Key images are characterised by a sense of scale and visual spectacle, and the format seems calculated to advertise the attractions of colour television and the episodic adventure narratives that television offered in the USA in the mid-1960s. The opening episode introduces the viewer to a massive underground base hidden beneath an American desert, in which an extraordinarily costly government project is being secretly carried out. At the heart of this technological facility, a physical apparatus, the massive Time Tunnel itself, acts as a portal for the protagonists to move to any moment in the past or the future, though without control over their destination. This premise is a self-reflexive representation of what television can do, transporting its viewer to real or simulated places and times beyond his or her experience, and engaging the viewer in thrilling narratives of exploration and peril. The style of the series, I suggest, articulates the substance of what television might be.

The first part of this chapter focuses on substance, because the series' aesthetic choices and the way the programme looks and sounds depended on substantial financial investment during production, and the integration of a range of physical and material production techniques, technologies and expert personnel. The physical objects on which the series relied included an extremely expensive set built in the soundstages of 20th Century Fox studios in Hollywood, for example. Careful attention was paid to realising the secret underground base and the Time Tunnel machine. However, the grandiose and expansive look of the series was also underpinned by very cost-effective procedures, like using trompe-l'oeil paintings (mattes) to place actors and real props into apparently gigantic surrounding settings, and incorporating relatively cheap stock footage, cut from previously completed cinema films, into

episode storylines. Some of the settings and action of the episodes had to be designed to fit the available library footage, and the epochs visited by the time travellers tended to be those that had been attractive to Hollywood producers in the past. The past and future times were often realised on screen by inserting sequences from 1950s westerns, historical epics and science fiction films, for example. The fictional world and the style of its representation showcases substance through the use of material production resources, but that substance is not always what it seems. While *The Time Tunnel* is impressively ambitious television, in its very ingenuity it expresses both the capabilities of television and the constraints affecting the medium.

The Time Tunnel was the work of the television and film producer Irwin Allen, who in the 1960s created several science fiction series for US network television and international export (Abbott 2006). These were episodic adventure series set in fantastic locations on Earth or in space, and although he began his career as a journalist, and a radio and television producer, Allen's expertise with complex visual spectacle underlay work in cinema that began with the film *The Sea Around Us* (1953) which he wrote and produced, and which featured extensive underwater cinematography. He made the dinosaur fantasy *The Lost World* in 1960 and co-wrote, produced and directed the submarine adventure film *Voyage to the Bottom of the Sea* (1961) before adapting it into a television series for the ABC network (1964-8), and created the series *Lost in Space* for CBS (1965-8). Later, he produced cinema films based on visual set-pieces and special effects, *The Poseidon Adventure* (1972) and *Towering Inferno* (1974). Trailers for the thirty episodes of *The Time Tunnel*, lasting either 20 or 30 seconds, draw attention to the visual realisation of past and future locations, and the colour production of the series. Over a colour still image from an episode, featuring one or both of the series' protagonists alongside actors costumed as, for example, Viking warriors, soldiers of the Napoleonic era, or silver-suited futuristic aliens, an unseen announcer would exclaim: 'You can be inside the first rocket to Mars ... or inside the Trojan Horse. See the discovery of a new planet ... or the discovery of fire. For the vast spectrum of time is revealed when two daring scientists are cast adrift in the fourth dimension – time!' The key battleground for competition between the US networks was colour broadcasting, and Allen's experience with spectacular visual sequences created on small budgets underpinned the appeal of *The Time Tunnel* (Grams, 2012: 42-4) to its broadcaster, ABC.

At that time ABC trailed behind NBC and CBS in the contest for high audience ratings, and the strategy of the networks was to gather the largest possible audiences so they could offer lucrative time-slots to advertisers. In the earlier half of the decade, the majority of dramas were sponsored by national corporations like Chrysler cars or General Foods, and then later in the 1960s by spot advertising bought by many different consumer goods companies. So, for most television advertisers, large nationwide audiences were what they wanted television to supply, but young, urban, white families were the most attractive sector. The popularity of sitcoms like *The Munsters* (CBS, 1964-6), *The Addams Family* (ABC, 1964-6), *Bewitched* (ABC, 1964-72), and *I Dream of Jeannie* (NBC, 1965-70) showed that the genre of science fiction and fantasy could be explored across a range of modes, in evening entertainment aimed at the family audience rather than a specialised niche. Indeed, each of the first three of those series revolved around a family, though one that comprised 'weird' or alien characters set incongruously in a conventional suburban milieu. ABC attracted a relatively young audience (Bedell, 1981: 31-6), and the casting of *The Time Tunnel* seems calculated to appeal to them. One of the young scientist protagonists, Tony Newman, was played by the emerging pop star James Darren, star of the teen film *Gidget* (1959) and its sequels. The other, Doug Phillips, was played by the more experienced actor Robert Colbert who appeared in the television Western *Maverick* in 1961 and in other long-running series. As a genre, science fiction addressed the young adult audiences that were becoming more important when the demographic mix of a programme's audience became as much, or more significant to advertisers than its sheer size. The time travel premise of *The Time Tunnel* was distinctive, but was a variation on familiar generic tropes of the period.

ABC was making plans for 1966 to be the year in which it used colour to reclaim its dominance. Programmes being shot in black and white, including Allen's existing series *Voyage to the Bottom of the Sea* and *Lost in Space*, were shifted to colour production, and in accepting the pitch for *Time Tunnel* from Allen, ABC used it to compete with NBC which had announced that its prime-time schedule for Autumn 1965 would be almost totally colour. This caused a budgetary problem, however, since Allen's intention had been to keep production costs down by using inserted stock footage from cinema films made in black-and-white, and colourisation would add costs. Partly to deal with this problem, Allen appointed the Oscar and

Emmy-winning cinematographer Winton Hoch who had worked as a colour specialist for Technicolor when the corporation had been developing its three-strip colour filming process. This staff appointment was a risk reduction strategy, putting a safe pair of hands in charge of the visual style of the new series. In common with Allen's other adventure series, a further aspect of the show's appeal would be its special effects, combining photographic effects with built set elements, pyrotechnics and models. The 20th Century Fox special effects department, headed by L.B. Abbott, was already experienced at this from their work on *Voyage to the Bottom of the Sea*, winning three Emmy awards in consecutive years (De los Santos, 2009). The effort to give *The Time Tunnel* an attractive on-screen look meant making a series of decisions about the substance of production in terms of its techniques, emphases and personnel.

Visualising time travel

The moments from *The Time Tunnel* analysed in this chapter are from the first episode, 'Rendezvous with Yesterday', in which the two main characters are transported through time to the ocean liner Titanic just as it is about to sink, where they meet the ship's captain (Michael Rennie) and some of the passengers (most importantly, an attractive English aristocrat played by Susan Hampshire). It was another aspect of the series' appeal to viewers that famous guest stars, especially from cinema, would feature each week, though they were often stars from an earlier period or from overseas, which made them less expensive. Again, ambition co-existed with prudence and economy. Allen wrote a treatment in 1964 that offered five episode outlines, and established key aspects of the format including the secret research station, two scientists, the experimental time travel device and unpredictable journeys into the past or the future. But preproduction decisions about the design of the Tunnel itself, and how to represent movement through time, took some time to be finalised. Martin Grams' study of the series shows that choices about how to realise the substance of these key visual elements were carefully negotiated (Grams, 2012: 15-38). The Tunnel could have been a long tube or cone, like a massive gun barrel, aligned horizontally along the studio floor. It could have been a cylindrical chamber not much bigger than a person, or a chamber formed from contra-rotating spirals resembling two joined cones of an egg timer arranged either vertically or on its side. The interior of the Tunnel could have been plated with mirrors, or created by a series

of repeating square frames receding into the distance, or a spiral of tightly wound electrical cables. The different styles of these designs allude to the expanding and contracting cylinders of a camera's zoom lens, to the chambers of a glass egg timer constricted at its waist, to the circular windings of an electrical power coil, and to a magician's magic cabinet for making a person disappear. Giving substance to travel through time might have involved the protagonists either spinning and shrinking, walking deep inside the horizontal Tunnel, or entering a chamber and disappearing. In the end, the realisation of the Tunnel suggests a combination of a full-scale wind tunnel from an aeronautics laboratory and a cathode ray tube from the interior of a giant television set (Figure 1). While the Tunnel's black and white concentric rings allude to the paintwork on NASA's experimental rockets and spacecraft of the period, they also reference the Op Art designs of 1960s visual art and fashion, like paintings by Bridget Riley (whose exhibition 'The Responsive Eye' was a sensation at MoMA New York in 1965) that induce sensations of movement and spatial disorientation. In such a futuristic technology, form cannot simply follow function, and the substance of the Time Tunnel both consciously and unconsciously derives from a complex of aesthetic ideas about design, technology and sensory experience.

Figure 1. The Time Tunnel machine, with some of its scientific staff.

The premise of the series is travel, through time more than space, but giving spatial substance to the times visited was a key attraction. Visually, the programme established a 'home' location, the deep underground base of the secret Project Tic-Toc, and in each episode a new place in time. The Tunnel is a physical space, a substantive structure through which the protagonists walk into a different time period, and it also functions as a kind of giant television, since at the end of the tunnel an image of their destination appears, as if on a screen. This reflexive quality connects the physical materiality of the time travel apparatus to the history of many other apparatuses that visualised travel through space and time. The Tunnel offers what Anne Friedberg calls a mobile, virtual gaze, a key aspect of the modernity developing in the later nineteenth century and into the twentieth, where movement in space and time was simulated by visual apparatuses of representation: 'the *virtual gaze* is not a direct perception but a *received* perception mediated through representation. I

introduce this compound term in order to describe a gaze that travels in an imaginary *flânerie* through an imaginary elsewhere and an imaginary elsewhen.’ (Friedberg, 1993: 2-3) In *The Time Tunnel*, travelling in time is not only a representation that is observed from afar, in the way that television offers a window on the world, but also the Tunnel enables Doug and Tony, as surrogates for the television viewer, the chance to explore the times they visit, and walk around in them. The other time becomes a substantive place.

Time travel in literature and cinema became popular amid a fascination with visually-based representational devices, exemplified by the dioramas, panoramas and other proto-cinematic devices of the nineteenth century. Dioramas and panoramas were buildings in which groups of visitors looked at backlit illuminated images painted on semi-transparent screens, and where lighting and carefully arranged effects of perspective and depth of field, created by miniatures and props, seemed to place the spectator in a remote landscape or at the occurrence of a famous past event. The interior of Chartres cathedral, the eve of the Battle of Waterloo or the Swiss Alps had already to be culturally significant and recognisable, so that there was a peculiar thrill in seeing them in all their grandeur. In the same way, *The Time Tunnel* visited heroes and villains of popular history, famous events like the Gettysburg Address or disasters like the Titanic’s sinking. In 1904, at the St Louis Exhibition in the USA, George C. Hale presented Hales Tours, where visitors seated in a mock-up railway carriage were shown travelogue films projected onto screens outside, with train sound effects and a wobbling floor to simulate movement (Fielding, 1970). As with any consumer technology or media experience, the new and surprising was mediated by the familiar and conventional. At this time, the new cinema medium was enacting fictional stories set in the past, the future and in fantasy environments, and manipulating time and space by editing, reversing and speeding up film. Movement represented on the cinema screen replaced elaborate combinations of static images, built sets, viewing platforms and imitation railway carriages, and film and then television representations offered viewers the chance to enjoy a mobile gaze while comfortably seated, as an aspect of media consumption and mass entertainment. There is a shared basis for the pleasures of cinema, television, science fiction and tourism, with a history that forms a substantial foundation on which *The Time Tunnel* builds.

The construction of the Time Tunnel set, costing \$22,500 (Grams, 2012: 212) required the use of two adjoining stages at 20th Century Fox Studios. So that the two protagonists could walk some distance into the Tunnel and be observed by cameras positioned in the Tunnel control room, one soundstage was used for the forced perspective set of the far end of the Tunnel, leaving another soundstage available for creating the control room and Tunnel entrance. It took 30 days at a cost of \$575,000 (almost double the cost of pilots for Allen's other television series) to make 'Rendezvous with Yesterday' in December 1965 and January 1966, because of elaborate set construction and special effects, though these could be reused in later episodes (Grams, 2012: 211). Studio facilities at Fox enabled the completion of editing, post-production special effects, sound and music in one place, with standing sets on the Fox backlot or at locations in the Los Angeles region (including a ranch) integrated in an effective and economical production system. Production was designed to feature effects sequences frequently, but also depends on interior dialogue-based sequences that were shot more cheaply in the studio and counterpoint the series' scale and visual ambition. Although moments of visual revelation are significant to the series' narrative and its visual style, the substance of its weekly stories is built as much from lively dialogue to expound the week's dramatic problem and work out its solution, as had long been the case in television science fiction (Winston Dixon, 2008). While action is frequently placed in other-worldly and fantastical settings, linked to the stock footage borrowed from previous productions, the consistency of the human-scale interactions between Doug and Tony, and between the staff at the Tic-Toc base, provides a coherent grounding for the series' fictional world.

The opening episode showcases the large interior sets, but also exterior filming and soundstage dialogue scenes, with inserts from the black-and-white cinema film *Titanic* tinted to match the new 1966 footage. Allen and his team studied the 1953 film for ideas about how to build the sets for the episode, and as the series went on they became expert at the relatively cheap and nimble method of borrowing from the MGM film library (physically located on-site at Fox studios) (Grams 2012: 87). *The Time Tunnel*, like other examples of Allen's work, exploits the relationship between different kinds of material resources. The substance of technological and institutional methods of production necessarily bears on the aesthetic choices made in

the programme's style and their significance for the viewer, and stylistic issues become the central focus of the later part of this chapter. In this first part, the chapter has made the case that the realisation of the recurrent underground base setting and the different times visited each week demand the creation of fictional spaces that are almost always visually distinct from the real California of 1966. Allen and his team use all the resources at their disposal to make the elsewhere and elwhen, the spectacular and the illusory, seem as materially real and present as possible.

'Rendezvous with Yesterday'

The first episode opens with an establishing shot of an executive aircraft in flight, cutting to a suited middle-aged man, Senator Clark, who is the only passenger aboard. An unseen pilot's voice requests he fasten his seatbelt as the aircraft lands in an empty desert setting, without a formal runway or any surrounding buildings. Clark steps out and is met by a limousine driven by a uniformed military officer. Speeding across the open desert, the car's existing passenger, a younger American man, uses a car telephone to announce his imminent arrival to the staff at the as-yet unexplained 'Tic-Toc base'. In long shot, a slot rapidly opens in the desert's surface, so that the still-moving limousine can drive down a concealed ramp out of vision, and then the slot closes again to leave only the featureless sandy surface. Throughout this sequence, rapid incidental music featuring stabbing brass notes and percussion suggests that some thrilling events are about to take place. It will later become clear that the protagonists are scientists with no military mission, but with access to the almost unlimited military funding of the Cold War period. *The Time Tunnel* sits between the military backstory of *Voyage to the Bottom of the Sea*, featuring a secret experimental nuclear submarine, and Allen's later and more fantastic series set in a more distant future or in space. Allen's productions have been discussed as Cold War fictions (Clark, 2010) and the immediate presence of uniformed men at the start of the episode prepares the viewer for that frame of reference.

The first sequence lasts only about one and a half minutes, but rapidly establishes a series of narrative coordinates and questions. The viewer has been introduced into the middle of the action, accompanying the airborne Senator as he arrives in a remote and featureless place that seems uninhabited. It is a perplexing destination. Both the Learjet and the limousine suggest effectiveness and large-scale

organisation, and the sudden opening of a ramp under the desert is the first indication that there is something fantastical about this story. But one of the strengths of *The Time Tunnel* is the use of models, miniatures, mattes and other physical, 'in camera', effects to give a sense of substance to the extremely unlikely or impossible events that occur in fictional world. The shot was created using a miniature car and ramp on a table positioned in front of the camera at the second unit film crew's desert location in Barstow, California (Grams, 2012: 81).

The storyline is interrupted by the programme's title sequence. It comprises a complex graphical sequence in which, first, numerous brightly coloured streaks radiate from a central dot. The camera zooms into this dot, then appears to rotate around it through 90° on a lateral axis, so that it is revealed to have been the round base of an hourglass seen from below. The camera zooms into the lower cone of the hourglass to reveal the stylised silhouette of a man, who falls from his standing position as grains of sand drop onto and cover him. A white line extends out in the centre of the screen, and again the camera rotates around it so it appears to have been the thin edge of a planar surface, on which there is a graphic of the title, *The Time Tunnel*, appearing backwards as if in a mirror. Zooming into the central M, then zooming out, the title becomes the right way around, the camera position somehow moving to the other side of the virtual mirror. A circular iris moves from the outer edge of the screen towards the centre, creating another central dot. A pivoting movement of the title caption is used again, to replace it with the names of the stars James Darren and Robert Colbert, and the creator and producer Irwin Allen. The radiant pattern of bright colours returns, spinning, behind each caption, and stabbing brass motifs and rapid percussion suggest urgency and tension throughout.

Pre-credit 'hook' sequences often quickly reward the viewer with an exciting opening, like the car driving beneath the desert, effects sequences are rapid and point of view is mobile. The next, live action, sequence is at a more leisurely pace, indicated by its music and the longer duration of the shots. The camera is positioned in an underground tunnel, perfectly situated to observe the approaching limousine in long shot. A nearby set of steps is guarded by a uniformed, armed officer, while light can be dimly seen in the far background of the shot, indicating that this is where the ramp in the desert has led (actually the tunnel was at Los Angeles International Airport). Senator Clark and the car's younger passenger walk up steps into a vestibule

guarded by armed sentries, to be met by a uniformed security chief, and the viewer now learns the name of the younger man, Dr Doug Phillips. They are escorted from this confined space to an internal bridge, and the camera adopts Clark's point of view as he looks over the edge into a vast well formed by the walls of what Phillips explains is a high-tech 800-floored complex in which there are over 12,000 personnel. The point of view shots down into this underground base are very similar to those used in the film *Forbidden Planet* (1956), when visiting astronauts are taken on a tour of a vast, deserted, alien underground city. Again, Allen's effects team created a miniature with moving parts to give a sense of material substance to the extraordinary environment. The model was thirty feet high and ten feet across (Grams, 2012: 82), and was equipped with model elevator cars that could move up and down through tubes on the surface of the vertical well of the underground city. A wide-angle lens, the Kinoptic 9.8 mm, was used to exaggerate perspective and enhance the impression of scale and depth. Familiar objects and movement produce realistic changes of scale at different levels down the tunnel, from near to the camera down to its very distant base. Overhead shots at the Fox soundstage featuring running soldiers and moving vehicles were matted onto the shots of the model's suspended bridges, with fifteen separate film strips running simultaneously through the camera so that action at several different scales could appear in the same shot. A sense of wonder, or a sublime feeling, are often said to characterise the visual style of science fiction cinema, usually referring to sequences where slow narrative pace and a distanced point of view allow time to contemplate special effects that contribute little to plot or character but rather encourage a feeling of awe (Bukatman, 1999). While *The Time Tunnel* certainly references this mode in set-piece moments like the shot of the underground city, narrative pace overrides it. Visual style is designed to thrill, shock and energise the viewer, rather than to encourage contemplation.

In a brief exchange of dialogue, Clark questions whether the Tic-Toc project is worth its cost, and Phillips explains that 'control over time' is 'the most valuable treasure' that mankind could gain. Phillips and Clark move away to a lobby in which there are circular pads, reminiscent of the top and bottom of the hourglass of the title sequence. By this means, the two men travel down the 800 floors of the complex, and an optical effect combining an overhead shot of the two men on the pads with a shot of a kaleidoscope's brightly coloured lights moving beneath floor level, represents

their movement. Clark looks both sceptical and annoyed, and relatively unmoved by his extraordinary surroundings, bringing a measure of sobriety that balances their grandeur and scale. The two men emerge onto another bridge suspended between the huge walls of the underground base's shaft, and moving to a long shot, the camera shows that they are near the bottom of the vast shaft, above what might be some kind of power generator that glows with a pearly light. Again, strong, primary colours, especially red and yellow, in settings lit with very bright lighting setups, give the extraordinary settings an abstract, pop aesthetic also seen in other filmed series of the period. Phillips, Senator Clark and a uniformed general move out of shot as the sequence cuts to a very long shot of the space into which they are walking. By aligning a detailed matte painting with the segment of the frame showing action on the soundstage (Fig. 2), the shot is able to show a vast high-tech open space, appearing to be just one of many similar shelf-like levels whose edges can be seen below. In this large atrium or chamber there are banks of electronic equipment and control consoles at which uniformed technicians are working.

Figure 2. The Time Tunnel set into a matte painting of the underground base.

These computer banks and consoles are paradigmatic of the representation of high-tech science in the mid-1960s, in which plain, functional grey cabinets with winking coloured lights stand in for any automated electronic process. Martin Grams (2012: 89) notes that many of the cabinets used in *The Time Tunnel* were supplied by a military contractor, Mars Aviation, or by the US Air Force. Their material substance and provenance links them to the familiar visual style of the lines of desks and consoles in television coverage of NASA's Mission Control. NASA's scientists face the huge screens on a wall in front of them showing data and images from rocket launches, though here the scientists are gazing into the Time Tunnel and the images projected within it. Stylistically, the grey cabinets and coloured lights also play a connecting role in promoting consistency of visual style across US programmes of the period, including Allen's other work, since the same props were used in numerous science fiction and fantasy series including *Voyage to the Bottom of the Sea*, *Lost in Space*, *Batman* (1966-8) and *Land of the Giants*. The substance and style of scenic

design, like practices of cinematography, colour palette and musical scoring, contribute to both distinctiveness and generic familiarity.

The viewer and the Senator are introduced to Dr Tony Newman, who emerges from working inside the black and white rings that comprise the Tunnel. He is shocked to learn that unless there is immediate success, the Senator will cancel the Tic-Toc project. After a dissolve indicating a lapse of time, that night Tony runs into the concentric rings of the Tunnel cylinder, and explosive electrical sounds, sparks and smoke indicate its operation. A sequence of brief shots accompanied by urgent music and warning sirens shows uniformed staff rushing around the complex, and the huge generating equipment at the base of the shaft flashing, indicating great expenditure of energy. As the tunnel scientists arrive, Phillips takes charge, and Senator Clark's requests to know what is going on produce short explanations from Phillips, such as that Tony had just completed implementing a 'radiation bath' within the Tunnel that would mark his body with radioactivity so that the base's sensors can, in theory, locate him in time, because unless he can be found, he cannot be retrieved. There is no sign of Tony as the smoke clears. Instead the sequence cuts to a moving kaleidoscope of primary coloured, blurred lights, with Tony's body pivoting end over end through it. The optical effect of travelling through time was created by blending several special effects technologies together (Grams, 2012: 44-6). The lead actors Colbert and Darren were suspended on wires so that their bodies could rotate freely, and to make their spinning movement seem less affected by gravity and momentum they were filmed in reverse using high-speed film, so that at normal speed they seem to be floating slowly. Wind machines blew at them, and behind them a blue screen background showed the multi-coloured kaleidoscopic effect, created by filming the interior of a spinning drum onto which pieces of coloured plastic and shiny paper had been attached. So, the movement through time, conceived stylistically as a kind of falling, was actually the result of the manipulation of different substances and processes, including the compositing together of static wire work by the actors, simple but effective practical effects created in the studio, and postproduction compositing of sequences together into the same shot.

A slow dissolve introduces a very long shot of an ocean liner at sea, which is replaced by a shot of part of the liner's deck. The coloured kaleidoscope slowly dissolves away, and Tony's slowly moving body appears to alight out of the air so

that he falls slowly and quite gently onto the deck. Shot structure immediately stabilises, first into a series of point of view shot-reverse shots between Tony and a woman (Susan Hampshire) sitting on one of the nearby deckchairs, then into a conventional pattern of scene coverage in mid-shots and close-ups as they begin to talk to each other. The woman introduces herself as Althea Hall, and their dialogue establishes that she is English, that it is cold, and that they are aboard a liner travelling to New York. Her reference to Teddy Roosevelt and her costume, together with the costumes of the extras in the background, suggest an early 20th-century setting. As Tony moves off down the deck, passing adults and children in period costume, the camera follows his glance as it lights on a lifebelt marked 'Titanic. Liverpool'. The low-level diegetic sound of a small band playing is replaced by the characteristic non-diegetic stabbing brass that characterised the title sequence, and there is a cut back to a close-up of Tony's concerned face. This escalation of tension and revelation of peril introduces the episode's second commercial break.

Travel in time is experienced predominantly as a visual experience, but one of the attractions of *The Time Tunnel* is that Doug and Tony physically enter each different time period they visit, stop, and walk around in realistic environments built from the material resources that Allen marshals at Fox studios. Doug and Tony experience different times directly, but through the agency of the protagonists the television viewer also becomes a flâneur or explorer of other places and times, displaced and transported to 'an imaginary elsewhere and imaginary elsewhere'. Science fiction, historiography and archaeology, which each blossomed in the later decades of the nineteenth century, share an interest in time and in representing a future moment, documenting a moment in the past, or exposing an arrested time. Time travel in literature, in H. G. Wells's *The Time Machine* (1895), for example (Bignell, 1999), appeared in the same period as stories about spatially distant, lost civilisations in Arthur Conan Doyle's *The Lost World* (1912, the source for Allen's 1960 film and the recent *Jurassic Park* films), and utopian novels like Edward Bulwer-Lytton's *The Coming Race* (1871) and Samuel Butler's *Erewhon* (1872). At that time, Roman sites, the Egyptian pyramids and the ancient city of Mycenae were excavated, and from 1900 Arthur Evans recreated the bronze age city of Knossos in Crete for tourists to walk around. Techniques of representation gave substance to the past, the lost or the fantastic and it was recreated or simulated for a visitor. The

beginning of cinema, of course, happened at the same time and coincided with science's quest for knowledge of the physical world, the Victorians' obsession with memorialisation, death and spiritualism, and with mechanical inventions offering entertainment to a mass consumer public. All of these aspects are signalled in *The Time Tunnel*'s trip, thanks to television, back to the spectacular, hubristic disaster of the Titanic's sinking in 1912, and in this sense the episode and the series as a whole recapitulate and proclaim the power of visual style to reanimate the substance of an Other time and place.

Figure 3. The Titanic on the Tunnel screen

Phillips explains that if Tony can be located, the team will be able to see and hear him in 'the viewing area', and the viewer sees images of the Titanic in long shot, displayed across the mouth of the Tunnel (Fig. 3) as if on a kind of television, presenting a live relay of Tony's experience in the past. Tony explains that he is aboard the Titanic, and there are just fourteen hours before impact with the iceberg. Doug must go back in time, equipped with a newspaper from 1912, to prove the imminence of the disaster and help avoid it. On the Tunnel's visualisation screen, the control team watch the liner moving across the dark sea towards glistening ice cliffs. The camera follows the captain's point of view as he gazes at a shaking chandelier on the ceiling. Back on the visualisation screen, chunks of ice fall onto the deck as the ship scrapes along the iceberg. On board, the captain confronts Tony and Doug, who again impress on him that they come from 1968, while back at base the visualisation screen shows torrents of water flooding into the fractured hull. Passengers swarm around the deck, and Doug and Tony assist passengers (including Althea) to escape, but an explosion tips them over the guard-rail. The Tunnel scientists freeze them in time, represented by a freeze frame on the visualisation screen. Each episode of *The Time Tunnel* ended with a short teaser to introduce the setting for the next week, and although the protagonists cannot be brought back to the present, they are jerked away from the Titanic to a new setting. In episode two Doug and Tony were going to arrive in a prehistoric jungle created by matching studio sequences with creature effects footage from Allen's film *The Lost World*, though this was changed so that they find themselves inside a rocket to Mars. The final shot of 'Rendezvous with Yesterday', in

the Tunnel control room, is into the Tunnel's shadowy interior where random flashes of light indicate it is still in operation, as the stabbing brass motif on the soundtrack comes again into prominence, signalling the peril to be experienced in the following week's episode.

Mobility in time is the key aspect of *The Time Tunnel*'s format, yet the series is much more constrained than it might at first appear. Within the fictional world, the details of the Tic-Toc base, the control room and the Tunnel itself need to recur for reasons of continuity and also of budget. Sets built for specific episodes, outside shooting locations, models and matte paintings are required to energise storylines which otherwise become repetitious and predictable. During the broadcast era, the mainstay of U. S. drama production was the episodic series, a form that relies on extension across time in an episodic structure that can be potentially infinitely extended and repeated. Time travel has to be domesticated, like the television medium in which the series is broadcast, while also offering the thrill of the alien, anachronistic or uncanny. Visual resources are clearly vital to pulling off this dynamic interplay, and *The Time Tunnel* aims for some degree of fantastical, surprising wonderment, constructed partly by the use of sophisticated production technologies, but also by the relatively inexpensive studio settings where it was made. Times past and future are selected and reconstructed to suggest both exoticism and familiarity, from ancient cultures that the viewer can recognise to futuristic alien invasions that adopt the plot structures of popular science fiction stories. *The Time Tunnel*'s aim for an expansive, visually sumptuous style had to be realised inventively with limited substance.

Style, substance and the materiality of aesthetic choices

Stylistic choices in *The Time Tunnel* are deliberate moves in an industrial and financial struggle between firms; substantive motivations underlie their aesthetic decisions. Differentiation between similar programmes was important commercially in 1960s US television, as Mark Alvey (1997: 150-2) argues, for example. The three dominant genres of the quiz show, action thriller and Western required innovations that would make one producer's programmes succeed against another's. There were few independent programme-makers, and programme production was monopolised by the major networks at the same time as they aimed to cut costs and increase profits by

requiring the studios that made programmes to bear a share of the financial risk. This meant that studios like Fox sought out innovative programme ideas that were distinct from their competitors, in order to gain commissions, while relying on sales of programmes in established genres and formats that the three major networks, who were their main customers, considered reliable prospects. *The Time Tunnel* had to be both new and also familiar, ambitious but also inexpensive. Its format remained stable, because of its continuing characters but also because of its repeated narrative forms. These included action adventure tropes like the separation of the protagonists, an imminent threat known only to them, or the danger of being marooned in another time. These patterns were accompanied by consistent visual elements shared across episodes, such as the setting in the underground Tic-Toc base, design and costume choices and the repetition of key sequences like Doug and Tony's tumbling fall through time to a new destination. Against this background of familiarity and repetition, storylines offered new past and future settings, new antagonists and guest stars, and thrilling or shocking moments that could generate suspense and defer resolution.

ABC sought to generate word-of-mouth interest among young adults by screening 'Rendezvous with Yesterday' at the 24th World Science Fiction Convention, known as Tricon, held in Cleveland, Ohio in 1966. The pilot of *Star Trek* (1966-9), which was also being shown and introduced by its creator Gene Roddenberry, received a relatively sympathetic reception. 'Rendezvous with Yesterday' was generally considered implausible and driven by action rather than ideas (Grams, 2012: 113-14), but was subsequently given a favourable reception by authors and journal editors who had elite positions within the world of science fiction literature such as Frederick Pohl and Donald Wolheim. Beginning on 9 September 1966, ABC scheduled *The Time Tunnel* at 7.00 pm on Friday evenings, which made it hard for the series to find an audience since it was aimed at younger viewers who were more likely to be away from home at that time. Allen's initial contract was for seventeen episodes, with an option to extend to the normal twenty-six episode length of a US television season, giving ABC the opportunity to cancel the series if its profitability was weak. In the ninth week of broadcast, ABC ordered nine extra episodes, and a further four were subsequently added, making thirty in all. But *The Time Tunnel* was scheduled against colour adventure series addressing a similar audience, notably *The*

Man from UNCLE (1964-8) on NBC and *Wild, Wild West* (1965-9) on CBS. While those genres of spy adventure and Western left *The Time Tunnel* without a direct rival, it could not compete effectively. After initially announcing a second season, in which the series would move to Wednesday evenings, ABC cancelled *The Time Tunnel*, leaving its proposed Wednesday slot available for a new Western, *Custer* (1967), designed to compete head-to-head against NBC's Western *The Virginian* (1962-71) (Grams, 2012: 181). Like *Star Trek*, however, *The Time Tunnel* had more substance as a commercial product than many of the series surrounding it in the schedules. It has had a long life in syndicated repeats around the regions of the USA and in export sales to the UK, Japan and Australia, for example, and has proved to be relatively enduring.

The style of *The Time Tunnel* derives from the particular and distinctive production systems that were used to make the programme, and the commercial context in which it was created. In the 1960s, science fiction programmes adopted technologies that ranged from, and blended together, shooting on film in a soundstage, on a backlot and on location, as well as shots of models and mattes, and integrated post-produced special effects. Such production systems became increasingly developed and as this production base grew, Allen used it to create distinctive variations on conventional action-adventure formats. Innovative visual style was dependent on the substance of these production practices, used to express creative ideas in material forms. In production, these quickly-made programmes are trapped mostly in the studio, having to simulate other places with stock film, brief second unit location footage or special effects. The style of episodic action series like *The Time Tunnel* is based on the substance of efficient industrial craft, on which the realisation of other times and places materially depends.

In relation to science fiction, Piers Britton (2009: 341) proposes that: 'If there is a central and constant design imperative in screen sf, it can be best described as the principle of extended common sense. An sf diegesis must appear co-extensive with "our" scientifically measurable and manageable world.' While some of this depends on conventions of verisimilitude that are based in the iconic properties of film or television technologies to record life-like images and sounds, it also derives from generic verisimilitude dependent on audience knowledge and expectation. Britton continues: 'machines, however vast or advanced, must *seem* as though they could be

engineered and successfully operated; and so on.’ So, programmes like *The Time Tunnel* need to establish conventions or styles of representation that connect what they show with the substance of the cultural understandings that their audiences bring to them. ‘Soft’ science fiction concerning society (rather than ‘hard’ science fiction built around problems in engineering, physics or astronomy, for example), is often apparent on television, because knowledge of the social world rather than the scientific offers a more comprehensible framework for the human stories that draw a mass audience (Telotte, 2008).

However, *The Time Tunnel* does draw attention to its futuristic technologies and past and future settings through its audio-visual style, and this is because the series draws on a long history of representational devices that seem to enable viewers to travel in time and space. This relatively generic 1960s adventure series is the inheritor of a mobile gaze developed not only in cinema but also in dioramas, fairground attractions and theme parks a hundred years before. Television has been assumed to be a medium in which a distracted viewer glances at relatively simple image compositions with low density of visual information, where sound predominates over image (Ellis, 1982). As Jeremy Butler (2009) has outlined, television has been thought to be a medium without self-conscious style, or with a zero-degree style characterized by self-effacing, observational camerawork, with no intrusive music, foregrounded special effects, slow motion or point-of-view shots, and associated with liveness rather than the manipulation available in recorded and post-produced texts. In contrast, *The Time Tunnel* is self-consciously excessive in style, and stylistically derivative but also innovative because of its borrowings from the representational devices that preceded it. These tensions are familiar in the genre of telefantasy (Johnson, 2005) which has often aimed to emulate cinema in visual spectacle and effects technology, but has been created in formats in which multiple episodes have to be efficiently supplied over a long period. Distinctiveness and innovation are balanced with economy of production and the repetition of narrative patterns, and television science fiction can both use and surpass the restriction of television to the small-scale storytelling that this characterisation implies.

Overall, *The Time Tunnel* has a striking sense of visual scale that is most clearly seen in set-piece long shots of settings, often at the beginnings or ends of episodes, but also in live action sequences like the evacuation of the Titanic. *The Time*

Tunnel's production team aimed for the visual emphasis that cinema was reputed to do better than television, and planned from the start to borrow and exploit sequences from cinema films. Yet they also aimed for the sense of immediacy, familiarity and closeness to the action that characterises episodic series television broadcast to the domestic audience over lengthy seasons. This combination of styles and substance, of aesthetic with institutional, commercial conditions, led to conventionalised yet also ambitious television. Colour filming, elaborate sets, models and matte paintings offered lush visual detail, supported by work on make-up, costume, set dressing and lighting. Directorial style was not declarative, but required Allen and his fellow episode directors to expertly articulate live action with special effects, models, prosthetics and props (Bignell, 2019). In this context, articulation means both the linking of scenes together in a consistent visual style within and across episodes, and also the creation of material spaces by craft techniques. The substance of creation is important because the dissimilar settings brought together from across time have to be assimilated coherently into the hybrid elsewheres and elsewhens that make up *The Time Tunnel*'s fictional world. The analysis of style and substance in the programme is a way of bringing together histories of technology, production institutions, authorships and aesthetics, and linking aesthetic with material properties.

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