This Planet Has Four Walls:
How early *Doctor Who* narrative was influenced by techniques and technology to overcome the confines of studio recording

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Abstract

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"The Dalek Invasion of Earth" (1965) marked a turning point in the series. Not only did it see the first change to the line-up of regular characters (Susan Foreman, played by Carole Ann Ford, left at the conclusion of the story) but it was the first to feature material filmed on location. Up until this point, all episodes had been filmed entirely within the confines of a studio.

This paper will examine the relationships and effects between narratives, production techniques and technology in this studio-bound era; how the programme makers told stories that in terms of direction, reach, and geography, far outstripped the limiting four walls of the studio space.

In addition, the paper will discuss how production techniques developed to allow creativity to flourish in order to escape the trappings of the studio. Techniques such as forced perspective, front and back projection, and lighting will be discussed, along with how they've been employed to assist the telling of the story in a number of Doctor Who episodes, including "An Unearthly Child", "The Daleks", "Marco Polo," and "The Keys of Marinus".

The central question to be explored is the idea that there is an inverse relationship between television production technology, and the creativity and ambition of geography in the narratives. While one grows, the other dies. Whilst television has become more technically adept, what has been lost? On what levels has moving beyond the studio been to the detriment of the medium?

This Planet Has Four Walls: How Early *Doctor Who* Narrative was influenced by techniques and technology to overcome the confines of studio recording

This paper sets out the ideas I am exploring in my practice-based PhD, entitled *"Reality, Representation, Illusion and Truth: The Evolving Locations of Television Drama"*. The PhD concerns the relationship between the development of technology and the processes of producing television drama, and involves the production of televisual artefacts that reflect historical approaches and new hybrid forms of drama. I want to ask, at a time when budgets are lower and expectations are higher, can we breathe new invigorated life into television drama by rewiring the balance of technological barrier and technological innovation that occurred in the past?

On the 23rd of November 1963, just one day after president Kennedy was assassinated, the British public were treated to a televisual magic trick that is emblematic of the impact technology had on television drama at that time. In low resolution black and white images, viewers witnessed two school teachers push their way past a mysterious old man and into a common metropolitan police telephone box, only to find themselves blinking under the bright lights of a large futuristic control room. The iconic time and space machine TARDIS had materialised into British culture, with its distinctive dimensional transcendentalism (meaning it is bigger on the inside than the outside) conveyed dramatically through the application of cutting-edge technology – the ability to 'splice' a video recording to join two sequences together that had been recorded separately. It is this link between technology and drama I want to explore here. Sequence 1 depicts the two school teachers, Ian and Barbara, running into the police box exterior prop, and sequence 2, filmed just minutes later on the other side of the studio, depicts the actors bursting into the TARDIS interior control room set. The joining of the two sequences creates a continuity of action from this discontinuous material, and thus allows a creative narrative plot development to enthral audiences.

This paper then will examine the effect technology plays on narrative and storytelling techniques in British TV drama, with an emphasis on the studio-bound era of *Doctor Who*, which encompassed its first full season in 1963-64, from *An Unearthly Child* (1963) to *The Dalek Invasion of Earth* (1964). Here, technological barrier met technological innovation. Out of that head-on collision evolved creative production techniques that 'broke down' the constraining four walls of the television recording studio to allow for a portrayal of reality that allowed for a diversity of story scope and depicting of geography in storytelling that we seldom see nowadays.

I will take a broadly technological determinist stance, as a framework through which I can explore the evolution of the ideas for the portrayal of 'reality' and 'truth'. As Bimber notes, "a lack of precision about the meaning of technological determinism fuels debates of all kinds about whether the concept accurately describes the unfolding of history" (Bimber, 1994: p. 80). Here I am applying it to the study of broadcasting history, and how it relates to changing values and perceptions of realism. Technology alone can not determine the route-map for television drama to follow, rather with it a quest for heightened reality, through progressing the form and techniques that derive the televisual image. The central question I will propose is that there is an inverse relationship between technology and storytelling. While one has grown, the other has diminished. While television has become more technically adept, something has been lost. In what ways has moving beyond the studio and into location been to the detriment of the medium?

I would argue that studio production in the early 1960s, before location recording was common place for television series, achieved a level of reality that did not limit itself merely to the televisual characteristic trope of 'close up' shot to evoke a performance (Nelson, 1997, p.19). Studio space itself as a 'factory of the arts' (Sutton, 1982: p.12) provides potential for realism, not simply in terms of interior sets that create an illusion of an office, a bedroom, or a living room which are relatively simple illusions to produce. More I am referring to the illusion of exterior locations where production techniques and technology have to resonate to overcome the limitations of recording in an interior space. Interestingly, it is also the *absence* of technological innovations (colour, widescreen ratios, high definition etc.) that help to create a believable illusion. The historical artifice viewed "at a distance" (Nelson, 1997: p10), a "window on the world" that separated television from real life by the intrinsic differences of presentation such as small, black and white images and low resolution pictures, allowed for the representation of things that simply aren't possible to effectively represent now. The screen is too clean.

Up to the mid 1960s, studio production was standard practice for television drama, and the low definition black and white recordings allowed for creativity to overcome limitations. In *An Unearthly Child*, the first televised *Doctor Who* story, a cobbled street could be represented merely by painting a pattern on the studio floor. This represented a reality, which wouldn't be portrayed effectively today, under the unrelenting gaze of our high definition cameras. Indeed, as *Doctor Who* continued production into the seventies and eighties, and technology continued to sharpen the image, it became increasingly difficult to disguise the studio floor effectively to maintain an illusion of reality. The jungle location depicted in the story *Kinda* (1981) had to be flat and level to accommodate cameras and props being wheeled about: "During recording there were constant delays as the producer rejected takes because 'it just looks like a studio floor', and, after several minutes spent sweeping leaves across, 'now it just looks like a studio floor with a few leaves on'." (Tulloch & Alvarado, 1985: p.296).

There is no doubt that low resolution black and white recording allowed for corners to be cut to achieve a sense of realism in the first season of *Doctor Who*. The scope of stories were intense and ambitious, and incorporated many more locations than would ever be seen again in *Doctor Who*, including the new series that premiered in 2005, which notably in that year centred all its stories on Earth (or in orbit) to avoid having to depict 'realist' alien landscapes.

From the first *Doctor Who* story, *An Unearthly Child*, the series featured techniques to overcome the limitations of studio-bound production. One of the first sets to feature on screen is a junkyard. As the story's director Waris Hussein tells us: "Now if you notice the junkyard, this was not a location, it was created [in studio], because we needed fog and we couldn't guarantee that on an exterior and we didn't have that kind of money to create fog. So we created [it] and also you're more in control." (Hussein, Personal Communication, 9th January 2008)

The budget for *Doctor Who* in 1963 didn't allow for location filming, so locations such as this junkyard were created in studio. As Hussein points out, this allows them to introduce swirling fog that heightens suspense and drama, which adds to the story. Shooting such a scene on location would lack the control required fog. The scene in studio could also be staged at night, as many scenes in this story are, and the lower lighting helped 'sell' the illusion of an exterior scene that was actually a set construction. The edges of the set could be lost in darkness, and it avoided the

problems of realistically portraying sunlight and sky. The night-time setting helps add to the dramatic appeal of this mysterious opening serial.

Camera techniques are employed later in the episode when the TARDIS dematerialises for the first time. The script calls for a shot of London, seen from the air, which disappears rapidly from view by shrinking away, giving the impression that we, the audience, are high about the clouds and are flying straight up, out into space. In a time before CGI effects, and without the budget to hire a helicopter, this effect was achieved in studio by a camera tracking backwards from a photo blow up of London. It goes without saying that this is a cheaper way of achieving the effect that again would no longer would stand up to scrutiny on screen due to the technological advances in resolution.

One of the challenges of shooting in a relatively small studio such as in Lime Grove was achieving a sense of depth on screen. Lighting and focus are used to depict a more realistic image based on depth and scale, with foreground and background objects and action. As Ian and Barbara get out of their car and move towards the gates leading into the junkyard, Ian walks ahead while Barbara holds back. This allows the camera shot to provide a sense of depth, with Barbara in the foreground, and Ian in the background. It is one of only a few instances in the episode with a sense of depth in the sets. This attempt at providing depth has an impact on characterisation, as Barbara holds back 'fearfully', while Ian 'boldly' strides ahead, therefore this is another example of how technology and studio limitations effect storytelling in studio as technology clearly shapes narrative strategies here.

Another sense of scale being achieved in studio was accomplished with technical trickery. The Doctor and his companions stand at the edge of a petrified forest, and look with awe at a distant futuristic city in *The Daleks* (1963). Here, depth of field was achieved through previously recorded footage of a model city, rear-screen projected into the back of the set, live, during studio recording. Using this technique - which requires forward planning and a static video camera (otherwise the filmed image would not be 'in sync' with the desired perspective, and the illusion would be lost) - the story could 'break out' of the confines of the studio space – technology overcoming limitations.

It is important to note that in this paper I am using illusion as a term for the "experience of realism in which reality might not be imitated" (Riis, 2002: 93). As Riis explains in his article, "experiential realism is not identical to the application of the term often used by critics, that is, to designate films that portray the real world, especially its social aspects … Importantly, it is the audiences *experience* of the story world as being realistic, independently of our recognition of events, persons, and places". (Riss, 2002: 93). *The Daleks* was the first story to feature such scale that accommodated the illusion of exterior locations that were not depicting a sense of reality that the audience could be familiar with. With its petrified forests, sandy plains, jungles, mountains, caves, and a city made entirely of metal, the production team had to balance a sense of realism with a sense of depicting the exciting and unknown, which is a realist / formalist balancing act that the most successful science fiction exemplifies. Traditional techniques of scenery and painted backdrops were employed to portray a scene that is 'real' in the sense that it conveys 'truth' of environment, that the actors respond to and move about in just the same way they would in a 'real' environment. The illusion is complete, of course partially due to the artifice that audiences

are aware of to view and appreciate the story unfolding on screen.

The process of realising drama in a studio is of course dictated by what the script calls for in the way of plot, locations, and particularly in the case of *Doctor Who*, effects. So how were stories 'designed' to be realised in 'studio space' – at what point did technology determine and influence the process? A certain level of awareness was required by writers to make effective use of the studio space, and the storytelling techniques available to them in an 'as live' production environment, which carried with it its own set of limitations. Here is another example of how narrative was dictated by the technology of the studio system at that time. Similarly, the camera setups and actor movements on the set were dictated by the need to ensure that no cameras would be visible in other cameras field of vision. Here, classic shot / reverse shot techniques of recording were rendered next to impossible (Nelson, 1997: p.18). Directors blocked scenes with actors to move them around the space more, and leave the cameras in passive, static stances (providing the theatrical staged look that is representative of most television drama of the period). The alternative was, while recording, to move a camera through a series of 'key frames', known as a revealing shot.

Hussein, during interview, reads from the original screenplay of the second episode of the serial *An Unearthly Child*:

> Stones are being fashioned for weapons by being rubbed against the rocks... skins are being splayed, a woman is beating some canes against a rock to make them break... an old man, watched by some children is drawing the shape of an animal... as he finishes drawing he looks at them and makes a fierce face and sounds the animal alert. They squeal and run away .. we go around the campsite seeing primitive people leading their ordinary everyday life and then we focus on a very curious fellow who sits before a pile of dry faggots rubbing his hand.
>
> Waris, Personal Communication, 9th January 2008

Waris points out that this level of sophistication is not possible in the 'as live' constraints of the studio recording, and proposes an alternative, that he describes as:

> Camera 1, elevated group shot, depressed close profile for caveman, pan in close shot from one face to another, close into tribe chief's hand... Elevate up to catch child on lift, turn with it to woman crabbing right quickly, lose child and come on to the old woman, hold close up.
>
> Waris, Personal Communication, 9th January 2008

Studio equipment in Lime Grove studio D where *Doctor Who* was recorded was antiquated even by 1963 standards, as Hussein recalls: "All that camera stuff that you see, the movement, poor guy was killing himself. I would think he probably got a bad back, focussing and pushing the platform and the tracking and doing whatever he was doing according to my needs."

Terry Nation was one of the key writers in the first series of *Doctor Who*, and penned *The Daleks* and *The Keys of Marinus* (1964) and *The Dalek Invasion of Earth* (1964), all notable for their reliance on a great many locations which posed further technological problems to be

overcome by the production team. The latter story is particularly relevant to note as it is the first to feature major location work for the series, and as a result spends a great deal of screen time gravitating towards 'filmic' presentation. For the first time, major sequences feature no dialogue, as attention can be held by the detailed locations on screen and provide a greater sense of mise en scene than was ever possible before. However, this combination of ambitious 16mm film recording on location coupled with slow and complex 405 line studio recordings makes for an uneven match of material. As Marcus Hearn points out in an interview I conducted, "*The Dalek Invasion of Earth* is insane for something produced in this way". *Doctor Who* was a far cry from the single-camera, 35mm film-based production techniques employed by ITC at the time, and it is only due to creativity overcoming the confines of studio recording that allowed these more ambitious stories to ever reach the screen.

Stories such as *The Dalek Invasion of Earth*, and others such as *The Chase* (1965), require virtually different locations for each episode. It would be inconceivable for these kinds of stories to be made now, because the shift to location recording limits the size of the 'story canvas' to the locations which are feasible to find, let alone shoot in. It is no surprise that *Doctor Who* stories became very much earthbound during the early 1970s, when location recording became 'expected' by its contemporary audience, and programme makers alike. Almost all alien worlds depicted by the series from this point on relied on quarries for locations, as the nearest stand in for an 'alien' landscape available to a series produced in and around London. Indeed, even the Russell T Davies rejuvenated *Doctor Who* series (2005-) has relied on quarries to depict alien worlds (albeit filmed at night, in an interesting reflection to the *An Unearthly Child* scenes filmed in a darkened studio also to 'hide the corners' to help sell the illusion).

I would suggest here that there are advantages with the advent of CGI to blend the real with the illusion (in much the same way that back screen projection was employed in 1963 for *The Daleks*) but it seems there is a conflict between the perceived size of the 'story canvas', and the confidence of the person wielding the paint brush, to introduce an analogy. It took a year before the new series of Doctor Who depicted an alien world, whilst the original series, within the supposedly limited confines of the studio, found ways of depicting many strange and wonderful places, only returning to contemporary Earth for the final story of the season, *The Dalek Invasion of Earth*. While drama production today reflects high production values, its reliance on location recording means that stories are limited to the locations available to the production team, and this limits the size of canvas the story can be painted onto.

In the context of current production, we can explore drivers for change within our broadly deterministic framework. Reduced budgets (particularly the BBC licence fee as the institution strives to roll-out digital broadcasting by 2012) and the advent of High Definition, where creative short-cuts cannot hide from its baleful and all-seeing glare, decreases opportunities for creative short-cuts. Lucy Richer responds to this:

> Drama is more expensive to make and one of the pressures on us is to reduce that cost. So with the cuts that have been made we're trying to reduce costs per hour wherever we can. Rather than reduce numbers of shows. And one of the things that is interesting about BBC Four is that they have a much more limited budget and what that is forcing people to do is be more innovative.

Richer, Personal Communication, Jan 20th 2008

I propose that one of the ways of reducing costs, is to revisit production techniques and processes of the early 1960s, where creativity and innovation overcame technological limitations of studio production. Is there a way of blending old processes with new processes, to again seek to create a balance between technological advances leading to creativity, balanced with technological limitations, in order to create a new 'hybrid' form of television drama? There are early indications that some aspects of this methodology are already being considered, as Richer explains:

> For [BBC Four] one of the things they do is just shrink everything, so that they're doing it, you know, in rooms, it's very contained, and then just a few exteriors bring it to life. And I suppose, in a way, they are returning to a degree to studio methods in order to facilitate so that there's a new degree of creativity.
>
> Richer, Personal Communication, Jan 20th 2008

Victor Pemberton, a story editor and writer of *Doctor Who* from the 1960s, in an interview, tells of the importance of truth as a guiding principle, to balance technical determinism with the search for ever-increasing levels of realism on screen.

> We don't always, necessarily, want to be realistic. We want truth, which is very important. There was a wonderful actress that I was involved in, that was a great friend of mine, and my friend David Spencer and myself did a film about her as you probably know, which we won an Emmy for called 'Gwen and Juliet Remembered' and she once said to me, she said 'It doesn't matter what else you do, whether it's in films or in television or in radio or on the stage, there must be truth.' And she said 'And the other big thing is imagination. And that's not only imagination for the actor' she said 'but for everybody, from beginning to end. It starts with the writer, it goes on to the producer and director and then it comes down to the artists.' And I think that's still relevant today.
>
> Pemberton, Personal Communication, 7th December 2008

Richer and Pemberton's words refer directly to the main points of my argument that I will develop further within the context of the PhD. Screens have got bigger and wider; resolution is sharper and cleaner. Audience expectations have grown, expecting big stories with big production values that are comparable to feature films. However, as all these technologies and expectations have increased, our abilities to meet them in drama production have been hindered in some respects, reduced in others. Perhaps it is time to revisit the term 'studio-bound'. Broadcasting history can teach us how stories can be told with a sense of scale and wonder that outstripped the 'binds' of the studio, and achieved a scale of 'story canvas' over 40 years ago that we rarely see nowadays. In the early 1960s, technical limitations clashed with technical ingenuity, and out of that fusion came creative, imaginative and ambitious narratives that, as technology evolved, developed into today's drama form.

Perhaps we can recreate these 'conditions of creativity' by fusing production processes (and their limitations) from the past with technological innovations of the present, to initiate a new, invigorated vector of change for TV drama to follow, that satisfies us with a renewed sense of scale, vision, impact, but more importantly, the representation of truth. Technology now allows us

to raise the game with audience ‘experience’ and ‘interactivity’. Perhaps it is time to redesign and build a new “factory of the arts” that not only allows us to break down the four walls of the television studio, but also the four sides of the television set and move drama production from being a representation of reality, to an addition of reality itself.

And what a drama that would be.

References

Bibliography
Bimber, B., 1994. Three Faces of Technological Determinism. In: Smith, M. & Marx, L., *Does Technology Drive History? The Dilemma of Technological Determinism*. Cambridge, Massachusetts: MIT Press.
Nelson, R., 1997. *TV Drama in Transition*. Basingstoke: Macmillian.
Riis, J., 2002. Is a Realist Film Style Aimed at Providing an Illusion? In: Jerslev, A., ed, *Realism and 'Reality' in Film and Media*. Copenhagen: Museum Tusculanum Press.
Sutton, S., 1982. *The Largest Theatre in the World: 30 Years of Television Drama*. London: BBC.
Tulloch, J. & Alvarado, M., 1985. *Doctor Who: The Unfolding Text.* 1st ed. Basingstoke: Macmillian.
Other Readings
Bentham, J., 1986. *Doctor Who: The Early Years*. London: WH Allen.
Brook, P., 1996. *The Empty Space.* New York: Touchstone.
Jacobs, J., 2007. *The Intimate Screen: Early British Television Drama*. Oxford: Oxford University Press.
Self, D., 1984. *Television Drama: An Introduction.* Basingstoke: Macmillian.

Television
Doctor Who, An Unearthly Child, 1963. TV, BBC1.
Doctor Who, The Daleks, 1963. TV, BBC1.
Doctor Who, Kinda, 1987. TV, BBC1.
Doctor Who, Marco Polo, 1964. TV, BBC1.
Doctor Who, The Chase, 1965. TV, BBC1.
Doctor Who, The Dalek Invasion of Earth, 1964. TV, BBC1.
Doctor Who, The Keys of Marinus, 1964. TV, BBC1.

Interviews
Lucy Richer, Independent Drama Commissioning Editor, BBC
Marcus Hearn, TV and Film Historian
Victor Pemberton, Writer and Actor
Waris Hussein, Director