THE PATH TO

Creating the terrifying world of *1984*

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he new Broadway season started with a gut punch in the form of a new version of George Orwell's 1984. First staged four years ago at the UK's Nottingham Playhouse in a co-production with the theatre company Headlong, it went on to a run at London's Almeida Theatre, a couple of West End engagements, and a US tour. Broadway didn't appear to be in the cards, however, until producers Sonia Friedman and Scott Rudin, taking note that sales of Orwell's novel had skyrocketed following the election of President Donald J.

Trump, decided to bring *1984* to the newly reopened Hudson Theatre on West 44th Street.

Clearly, the producers were on to something. Although Orwell's bleak vision of the totalitarian state Oceania is, thankfully, very different from the current American political reality, disturbing parallels exist. The current president's attempts at building a cult of personality similar to that of Russian president Vladimir Putin finds an echo in Big Brother, the unseen tyrant who rules Oceania-and who may not even exist. The current climate of "alternate facts" is mirrored in Oceania's infinitely malleable reality, where dissenters can be rendered "non-persons" and "vaporized." The protagonist, Winston Smith, works at the Ministry of Truth, where he erases non-persons from official records and newspapers. The atmosphere is one of continuous suspicion and paranoia: Telescreens project an endless, inescapable flood of propaganda into every home and office; they work two ways, allowing the regime to spy on citizens. Exercises such as the daily "Two-Minute Hate" are used to whip up highly controlled mob frenzies. Orwell's most satanic invention, "Newspeak," a language designed to reduce all communications to a handful of words stripped of any intellectual and/or spiritual connotations, threatens to replace everyday English.

The novel, which has relatively little action, doesn't seem like a natural for the theatre; its power lies in the vividly imagined details of life in squalid, crumbling, fearridden Oceania. But Robert Icke and Duncan Macmillan, who adapted and directed, have created a cunning solution, which involves the use of lighting, sound, and video effects to realize the world as seen through Winston's eyes. Scenic transitions often take place with bursts of blinder cues and nerve-shattering sound effects, followed by blackouts. Voiceover effects stand in for Orwell's omniscient narrator and for representatives of the surveillance state. Enormous video projections announce the Two-Minute Hate, in which the image of an enemy of the state is subjected to universal abuse. The action moves swiftly and remorselessly, following Smith from a brief moment of rebellion through a stab at a love affair and a terrible betrayal, ending up in the dreaded Room 101, where those who commit "thoughtcrime" (a classic Newspeak term) are forced to face their most primal fears.

All of these work to put the audience in Smith's position, following him through the brutal, horrifying process of brainwashing. In preserving—and, in some cases, elevating—the terrors of Orwell's book, *1984* makes for a most unusual Broadway offering. It is not surprising that there have been accounts in the press of audience members fainting or fleeing the theatre. This is strong stuff, strongly served up. It is also a production that demanded an unusual degree of cooperation among all design disciplines.

Scenery and video

For a good section of the running time, it appears that the entire play will unfold on a single unit set, designed by Chloe Lamford, depicting a wood-paneled interior that, as needed, stands in for Winston's apartment; his office and the canteen in the Ministry of Truth; a place in the country where he meets with Julia, his lover; and the home of O'Brien, the mysterious bureaucrat who appears to befriend Winston and Julia, indoctrinating them into a shadowy rebel movement. Only minimal changes, some of them made by the lighting designer, Natasha Chivers, are needed to suggest each location.

Lamford refers to this set as "the book-group room," after an early, surreal scene in which Winston seems to confront a group of people discussing Orwell's novel. She says, "Rob and Duncan had a vision of a strange university or municipal room, with the idea of the book group gradually blending into the play." She notes that the unitset approach relies on the collective imagination of the audience. "The canteen is just about opening a window in the wall. When Winston goes to the train station, we push smoke all over the stage. All you need is a sound effect and a gesture."

Upstage, spanning the width of the set, is a slightly canted wall apparently made of distressed ceiling tiles, which acts as the main screen for Tim Reid's projections. In a way, such a major scenic element seems like a big concession to the projection designer but, Lamford says, it was a no-brainer "because the projections fit so well, conceptually, into the production. I always like it better when projections are embedded into the world of the design. I didn't want it look like a projection screen; it's got a kind of texture and life to it. It was a good collaboration [with Reid], because projections were part of it from the very



Lamford's book-group set here represents the home of O'Brien, the mysterious bureaucrat who appears to recruit Winston and Julia into a shadowy resistance movement; Chivers' lighting adds a slightly noirish touch.

beginning. I design quite conceptually, and, especially with new writing, it's better when video design comes out of some specific need."

The second set, a bed-sitting room in the rear of an old antique shop where Winston and Julia hold their furtive meetings, is a bit of a ruse; it's a tiny, slightly squalid space filled with detritus of the 20th century and is seen almost entirely through live video camera transmissions. (Seeing this production, I wondered if these weren't prerecorded sequences; this is, apparently, a typical audience reaction.) The antique-room set is located far upstage, behind the main book-group set. This layout created certain spatial issues for Lamford, who notes, "We did it first in a theatre in Nottingham, and then the Almeida Theatre in London, which has no fly tower or wings." To cope with such tight spaces, she adds, "I made a complex folding version where things had to fit underneath balconies and the walls folded in half." No such problems exist at the Hudson, which has a stage of sufficient depth to accommodate the additional set.

The antique-room set is exposed to audience view in

the play's most brazenly theatrical moment, when Winston and Julia are caught trysting and are arrested. It begins with a video transmission of them in the antique room; a voiceover announcement reveals that they have been caught, and members of the supporting cast, dressed as members of the Thought Police, pull the main book-group set apart, revealing the young couple in their hideout. (Lamford, who also designed the costumes, notes that the Thought Police uniforms are based on those of riot police in Georgia-the contested, strife-torn Eastern European nation, not the Southern US state.) The action of ripping the set to shreds "is visible and scary," says Lamford. "We destroy everything you've seen. Everything you thought you knew gets ripped away and you see Julia being taken away. That fact that this is an act of violence committed by people is really important."

The destruction of the book club set is the beginning of what Lamford calls "the big breakdown." Accompanied by lighting and sound effects, the destruction of the main unit set is followed by a set of stark white walls that flies in, covered in Twin White rear projection screens supplied by Rose Brand. This is the stark white, antiseptic heart of Oceania known as Room 101. "It's clinical and slightly forensic," Lamford says. "It felt like the right kind of space rather than a dark, dingy, overdesigned cell. It can scare the hell out of you, because you can't look away. We spent ages thinking about the best way of doing this. In the book, they call it 'a room without darkness.' That's the really brilliant bit about Natasha Chivers' lighting; you go from this dark, confusing theatrical space into terrifying brightness." (Scenery and scenic effects were built, painted, and automated by ShowMotion, of Milford, Connecticut.)

As previously noted the notion of video projections was built into the production from the get-go. Reid, the video designer, says his work began with a conversation with lcke, focusing on the lengthy video sequences set in the antique room. "After that, we spent a few days trying out some practical ideas, with a couple of actors playing Winston and Julia, and a basic live camera feed. We rigged up the camera above the actors, then hid in the next room to watch them on-screen. The key question Rob and Duncan were trying to answer was: How long could a scene be played out only on camera and still hold the attention, still be theatrical and compelling? At what point would we zone out from the action?"

Reid's ideas about the importance of embedding video into scenery are rather like Lamford's. "I think it's most effective when the image can fill some natural boundary within the set—whether it's a door, window, or other object—or, in the case of *1984*, the tiled wall which looms over the set. The tiles and distressed finish on the wall give it a presence and a purpose when there's no video on it much better than a giant empty screen."

He adds, "When the video is projected, I'm always impressed by how much the 'imperfections' of the surface just vanish. Our brains have a great ability to disregard the noise in the image and see the whole picture. I prefer projection surfaces which aren't perfectly flat or uniform in color. I find them very satisfying to use. I think it helps the projected image belong to the visual world of the shows. The images seem to just rise up out of the scenery."

The scale of the images is important as well, Reid notes. "It makes the Two Minute Hate more intense and also ensures the audience can stay engaged with Winston and Julia when they're on camera in the antique room—helping to compensate for the distancing effect of the scene playing out entirely on video. We were careful to try and avoid feeling 'surveillancy' in the antique room scenes; we were aiming for a cinematic look and helping the audience with the doublethink necessary to spy on Winston and Julia's trysts while believing them to be private."

The business of performing and shooting the antiqueroom scenes live each night is full of challenges, Reid says: "The long, thin letterbox shape of the tiled wall means that the cast has to hit marks very precisely—the camera angles are pretty unforgiving of someone being too high or low in shot. Tom [Sturridge, who plays Winston] and Olivia [Wilde, as Julia] are both film actors and brought a lot to those scenes as we reinvented them, shot-by-shot, in rehearsals."

In terms of logistics, he adds, "There are six cameras in the room; adding a sixth gave me more coverage of the set and allowed the cast more freedom in their blocking. For Broadway, we switched, for the first time, to HD 16:9 cameras, which meant we had more width, but less height, to work with than in previous versions of the show. This allows for some lovely two shots, playing with distance between the characters. We also exploit the fact that the tiled wall doesn't show the full height of a 16:9 feed. By electronically moving the camera signal higher or lower, we can show more than a 'slice' of the overall 16:9 image and have more flexibility in the shots. It does make for a challenge as the shots are finalized, however, as adjusting something to fit into one shot of slice may compromise another."

Also, Reid says, "Having the equipment in rehearsals let us try things out and discover new shots, such as rotating the overhead camera to allow a shot covering the length of the bed, and rotating and scaling up the same camera feed for the more intimate close-up on the pillows." The cameras, which include one placed in Winston's desk lamp, another behind the door of the antique room, and one held by a torturer in Room 101, consist of Marshall Electronics products: six CV343s plus one CV200 and one CV502. Reid says they are "all nicely compact and HD, each adapted to the needs of the show by the wonderful Chris Kurtz, the production's video tech. He came up with a mounting system for one camera, which is unclipped and carried onstage live, and a handheld system for our wireless 'roaming' camera and its battery and transmitter. He was instrumental in planning the mounts and cable runs around the antique room, all of which are struck live each night and so require careful arrangement. We also worked closely with props supervisor Ray Wetmore, who did a great job of fitting the 'lamp cam' into the lamp prop; the HD camera we used was larger than the tiny SD thumbnail camera we'd used in previous versions, but Ray made it invisible within the body of the lamp."

Images are delivered using two Panasonic PT-DZ8700s for the tile wall. "The lack of a suitable balcony front rigging position meant we needed to blend the two across the tiled wall," Reid says, "and what seemed initially very challenging was worked out brilliantly by Chris Kurtz and my associate designer and programmer Matt Houstle. For the scene change and Room 101, we switch to a Panasonic PT-DZ21KU, the extra brightness allowing it to punch through the bright lighting in Room 101, and also to reach on the black upstage wall of the Hudson Theatre during the scene change."

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The production employs a Catalyst media server, chosen, Reid says, because it "was the system I originally programmed the show on back in 2013, although for Broadway we've programmed it through an [ETC] Eos console rather than using Catalyst's built-in interface. This reprogramming job was also done during rehearsals, as the show file was rebuilt from scratch, and Matt was able to build me a flexible setup to aid the reworking of the camera shots."

Also, Reid says, the antique-room scenes "are a particular challenge in terms of cueing the show. [Production stage manager] Artie Gaffin rose to this challenge wonderfully; he provides something impossible to automate—the human instinct for a good edit, just the right beat to cut on. It's a great satisfaction to me that those scenes in each night's show are cut live, moment-to-moment, responsive to the actors. That's what keeps it from being just a movie at the theatre; the live element keeps it fresh."

Lighting

Chivers' lighting (along with Tom Gibbons' sound design) plays a key role in suggesting the production's shocking, disorienting pace; scenes often end in a burst of blinder cues and nerve-jangling sounds. "We were after a number of things—fast switches of cast, for example, and there was a practical need to disguise those moments," Chivers says. "There was also the need for the torture in the show to extend beyond what is happening on stage and into the world of the production. It was the need for things to be jagged and contemporary and bruising."

Some of the responsibility fell to Chivers to help suggest each discrete location on the book-group set. Like Lamford, she did so employing an economy of means. "You can't make an oak-paneled room like the countryside; you can only suggest the countryside," she says. "There's a short scene on the street; you take the essence of it." The set itself proved challenging because "you're restricted, space-wise, with the half-ceiling and walls." She got around this with a frequent use of sidelight looks: "I negotiated a really small slot to get some side booms just upstage of the iron. When we first did this production four years ago, LEDs weren't so frequently used. For Broadway, we updated the rig to get slightly better moving lights and LED units, which meant we could squeeze this little boom in there and get much sidelight for that sculpted look."

The rig includes 11 Martin by Harman MAC Viper Wash DX units, five ETC Revolutions, five Kinetic Lights PixelLine 110s, approximately 60 ETC Source Four LED Series Lustr 2s, roughly 56 ETC Source Fours in various models and degree sizes, 72 PAR 64s, three Philips Strand Cantata tungsten Fresnels, 12 CCT Lighting Minuette tungsten Fresnels, 10 Philips Strand Coda floods, four Highlite International Showtec Sunstrips, four Altman Microstrips, and 23 MR16s. Power is handled by ETC dimmers, with an ETC Eos TI console for control.

Chivers says that the Mac Vipers and Lustr 2s do much of the heavy lifting: "Until the Broadway production, Room 101 was always lit with PAR cans. That's because, touring the UK, all the venues we played had a large number of them. Moving to America, we dropped out a few Fresnels and scrollers overhead and also took out the PAR cans for Room 101. What I had been doing with, say 40 PAR cans, I could do with five LED units, getting a more even feel with a huge output." She adds, laughing, that the "great success" of her "blindingly bright" lighting of Room 101 came when fashion maven Anna Wintour, who was in the audience, donned her famous sunglasses to get through the scene.

Lighting the antique room was a challenge, Chivers says: "It's a funny little truck and not a film studio. In the UK, we had ordinary domestic sun floods, which you use to light up your garden. We need really close-up lights everywhere, and there are very few places to put them, because you've got to keep them out of the camera shots. We have a couple of little Fresnels overhead and a few birdies coming through the windows, but, mainly, we're using 500W Fresnels and a couple of little 500W Fresnels on drop-down bars."

Other effects include the blinder cues, created by the PixelLines, which are fitted into the proscenium, and an effect that simulates the light through the windows of a passing train. Chivers says, "We have one bar that's rigged to the back wall of the corridor [the upstage wall of the book-group set]. It has PAR cans on it and we do a little effect. We use that bar a lot—the train effect, in the countryside side, and to have lighting coming through the window."

Noting that many of the lighting cues are linked to sound cues via MIDI and executed by the Eos Ti console, Chivers says that she and Gibbons work together frequently, which helped to expedite matters. She adds that, having done so many versions of the production in such varied situations, everyone was prepared and ready to go for Broadway. "If we were doing the current version from scratch, it would take a really long time to do. But we've been adding layers and details over the last four years; each time we put it back on its feet, we've added new levels and a little more finessing." She notes that the first day of tech is always devoted to the big breakdown scene and transition to Room 101. "It's so we don't run out of time. After that, we start at the beginning."

Sound

Gibbons' sound design includes ambient effects—train engines, voices in the canteen—as well as voiceovers, amplification for the antique room scenes, and jolting effects that break up scenes and also signify the effects of



Room 101, described in the novel as "a room without darkness," is made blindingly bright, thanks to the white walls designed by Lamford and with the aid of Chivers' lighting. A cast member carries a camera that allows Winston's torture to be seen in horrifying close-up.

torture. Echoing the other designers, he says, "When we first did it four years ago, we knew that the big scene change"—the breakdown—"had to be a real moment. We started out with everything before that being quiet and gentle. We did a couple of scenes in the first incarnation without sound, and it felt like we had dropped the ball. It was all or nothing and we went for all. We did four or five weeks of rehearsal, just playing with sound."

Interestingly, Gibbons, says, "The US production is the first time we've had radio mics on the whole cast." Winston and Julia must have mics, of course, to be heard in the antique-room scenes, but, he adds, "We've amplified them all to increase the level of underscoring, bringing it out into the auditorium." Earlier productions sounded notably uneven, he notes, given the mix of actors on mics, actors without mics, and amplified effects. On Broadway, everyone is on DPA 4061 capsules with Sennheiser 5212 transmitters and 3525 receivers: "It's loud as hell, the loudest show I've ever done and it's deliberate. The audience has to go through the same thing that Winston is going through. It has to be difficult to watch and hear. In the Hudson, compared to what we had in the UK, the sound system is twice the size. It's a slightly bigger system than for *Sunday in the Park with George* [a musical, and the theatre's previous tenant]."

According to Chris Cronin, the associate sound designer, "The main loudspeaker system is comprised of main left and right clusters of d&b audiotechnik Q1s, a center cluster of d&b Y8s, and main left and right proscenium systems of d&b Y7Ps and Y10Ps. The Qs are used mostly for intense sound effects playback, and the Y proscenium and cluster boxes are mostly for the RF mics. House delays include rings of d&b T10s and E3s, with E4s for front fill. Amplifiers are d&b D12s with a few Lab.gruppen FR2400Qs; the three levels of side and rear surround are EM Acoustics EMS-61s."

The sound of Winston being subjected to electric shocks in Room 101 is, Gibbons says, "a kind of 808 bass synth sound [generated by Roland TR-808 Rhythm Composer] that I pitched up about a hundred times. When it gets distorted, it gets very strange. We play it through the main speakers and not the subs; it gives a weird reso-

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nance to the room. The first time I played it, it was way too loud and I nearly killed people. The electrocution cues are not as aggressive as the others [used in accompaniment to lighting blackout cues]. The blackout effects use a load of bassy, loud digital sound. There's a fantastic Japanese artist, Ryoji Ikeda, who has made all sorts of sound art using digital noise and distortion; we played around with it in rehearsals, blowing a couple of speakers. We blew the entire surround system in the Almeida; it all adds to the legacy of this mad show."

For the antique room scene, Sturridge and Wilde's mics are on delays to compensate for latency in the video. (This is managed in the control console, a Yamaha CL5) sole running the lighting. "It's something I've never done," Gibbons says. "Normally, in the UK, we would do it the other way around, using QLab. There are no sound cues called at all; everything is linked to lighting cues. It was frustrating, because at times in tech I wanted to change something, which would mean making a lighting cue. Jim [van Bergen, the production's sound engineer] doesn't call cues; he only mixes the show." It remains a busy evening for the sound engineer nevertheless.

Gibbons adds that he feels proud of the overall result, including the music he composed for a number of scenes. "The fact that, so many years later, it is now on Broadway feels slightly surreal—even less real when we saw what



The Two-Minute Hate is marked by the stark graphics of Reid's projections and Gibbons' frankly brutal sound effects.



Gibbons says, "There's also a couple of overhead shotgun mics to pick up movements and the sounds of clothes rustling, like you would do on a film set. When Winston and Julia get into bed, we want to hear the duvet covers; it creates an intimacy. We have [d&b] E3s doing a little bit of imaging to pull the sound right back to the screen. In the last part of the scene, we have the actors on shotgun mics only, taking out the radio mics, because they're so closer together."

Cronin says that playback of sound effects "is via QLab 3 on Mac Minis, interfaced to the [CL5] via Dante Virtual Soundcard. A Mac Mini out front runs Apple Mainstage hosting Altiverb 7 plug-ins, serving multiple different reverbs, also via Dante. System processing is by a pair of Yamaha DME64Ns." Also, a Yamaha Rio 3224 stage box is located backstage.

The QLab 3 is triggered by cues from the Eos Ti con-

was happening on the American political landscape." This isn't the most pleasant production on Broadway, but it may be the most necessary.

Other key personnel not previously mentioned include Jeff Brancato (stage manager), Christine Peters (associate scenic designer), Dan Walker (associate lighting designer), Pete Malkin (associate sound designer), Dan Coey (production electrician), Marc Polimeni (lighting programmer), and Devin Day (assistant stage manager).

This may prove to be the year of political theatre on Broadway. Next up is *The Terms of My Surrender*, a solo show for the satirist Michael Moore. Its ad copy asks the question: Can a Broadway show take down a sitting president? Also in the pipeline is *The Parisian Woman*, about DC intrigue, and rumors persist about a transfer of Tony Kushner's *Angels in America* from London's National the visceral punch it offers in these strange political times.