The experimental seduction of mechanistic modernism in Eugene O'Neill's 'Dynamo' and the Federal Theatre Project's 'Altars of steel'

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In the 1920s and mid 1930s, American dramatists struggled to find theatrical form to express America's development from an isolationist agrarian nation into an industrial world power. Eugene O'Neill's 'Dynamo' (1929) features a scathing critique of blind faith in scientific progress, whereas 'Altars of steel' (1937) favourably presents a regional factory under the control of a benevolent capitalist. Neither work was considered a critical success by New York critics, but both used expressionistic staging devices and religious imagery to explore the seductive quality of technological progress. Modernism, futurism, technoeroticism, and the lofty optimism of the emerging industrial design profession form the backdrop against which historical sources and contemporary reviews are used to analyse these plays. Tracing the fault lines and stress patterns of these two flawed theatrical works raises complex questions about how people might actually live in the society of the future, as it was imagined in the early twentieth century.

Theatre is the soul of a city, blossoming wherever 'man seems most called upon to define himself'.[1] In Times Square last year, shortly after the September 11 terrorist attacks, the League of American Theatres and Producers recorded a television advertisement with hundreds of costumed Broadway actors singing 'New York, New York'. Both the attacks and the advertisement presented the city as an arena, with its inhabitants on display. Second only to language, Lewis Mumford sees the city as 'the most precious collective invention of civilization'.[2] The amplification device within the masks of classical actors suggests the longstanding cooperation between theatrical artistry and technology; and this same mask also gives us a term that is inseparable from our own concepts of knowledge: the word 'person'. In cities, the realm of art and the realm of technology have only relatively recently diverged from their classical roots – both *ars* (Latin) and *techne* (Greek) simply indicate 'skill'. While material failures draw lasting scrutiny when they are most visible to the city and its citizens, in the world of theatre artistic failures are typically associated with small audiences. As America struggled with its emerging identity as a world power between the world wars, Eugene O'Neill's 'Dynamo' (1929) examined a protagonist's pathological fixation upon technology, and the Federal Theatre Project's 'Altars of steel' (1937; credited to the pseudonymous Thomas Hall-Rogers) upheld a factory as the moral centre of a community in the American South. Neither play was considered a success by New York's drama critics and neither drew large audiences; however, tracing the fault lines and stress patterns of these flawed theatrical works will teach us something about the culture that created them.

From the 1920s to the mid 1930s, as America developed from an isolationist agrarian nation into an industrial world power, American dramatists used science and industry as indices to the human individual's quest for truth and self-knowledge. In 'The moral dilemma of the scientist in modern drama', Hye writes that '[t]he classical view of the artist as an intermediary between God and man, a kind of high priest, also holds true for the scientist in modern drama.'[3] Historian Henry Adams, writing in the early twentieth century, critiqued America's fascination with technology, lamenting that what he identified as the most powerful attractive force humankind had ever known – the archetypal Virgin (the life-goddess, as represented variously by Venus and the Virgin Mary) – had been hastily tossed aside in favour of the progress worshipping religion of the dynamo. Adams 'began to feel the forty-foot dynamos as a moral force, much as the early Christians felt the Cross',[4] and observed that the pace of scientific advance had forced non-specialists to accept – without question and on faith alone – discoveries which science revealed. Although an agnostic, Adams recognised that faith in the Virgin has historically led the human mind to prayerful reflection and great works of art and architecture. By contrast, faith in the dynamo can only lead to more dynamos.

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The eroticised concept(ion) of the machine

During the 1920s, the form of American theatrical experiments was influenced by continental expressionism – a movement that sought to 'express' the inner essence of the human psyche, typically through distorted projections and mechanistic staging elements. Technology, religion, and sexuality were explored as never before – generally with critically disappointing, if historically interesting, results. For example, John Howard Lawson's 1926 'Nirvana' disappeared into obscurity after only six performances at the Greenwich Village Theatre. As it opens, 'the violet light of an X-ray apparatus buzzes startlingly',[5] signalling the play's scientific tone. The influential theatre reviewer Burns Mantle here writes about the character Dr Alonzo Weed:[6]

> His adventures involve a meeting with a visionary millionaire who would shoot a man to Mars in a monster skyrocket; a free feminine soul who is in doubt as to whether her lover or her husband is the father of her expected child, and most particularly with a young girl who, coming from the country, is so oppressed by the jazzy social life into which she is thrown that she seeks the other life through suicide. Briefly she is brought back from death by the prayers of her Christian Science mother, who shrieks in horror at the demonstration of her own faith, and the girl promptly dies again.

The play's exploration of 'a new and bitter realization of man's relation to the electric void through which he walks'[7] suggests that the modern urbanite craves a personal relationship with machines, which are more than tools. The playwright raises equally challenging questions about gender, through the sexual objectifications of the virginal country girl, her sexually unrestrained doppelganger, and the millionaire with his monumental phallus. According to Valgemae,[8] Lawson felt that O'Neill's 'Dynamo' 'acknowledged a debt' to 'Nirvana', but O'Neill had been formulating the idea for 'Dynamo' at least three years before 'Nirvana's brief appearance.[9]

Another early expressionist treatment of eroticised technology is 'Ballet méchanique', a 1924 art film by the modernist painter Fernand Léger;[10] the name refers also to the film's soundtrack, a mechanical symphony by the American composer George Antheil.[11] The joint work brought a sensually stunning treatment of technology to American audiences in 1927. In Léger's film, gears and wheels (i.e. components of machines) alternate with shots of women's eyes, lips, hats, and shoes (i.e. components of a sexualised woman). The montage juxtaposes the primal force of sexuality with the modern force of technology (Fig. 1). A major sequence of Antheil's symphony mimics the sounds of a machine breaking down, with a simple motif repeated more and more laboriously, interrupted by pauses that stretch to a full twenty seconds. The final (orgasmic?) crescendo of sirens, buzzers, multiple pianos and xylophones, a mechanical pianola, and an airplane propeller anticipates the jarring but vibrant rhythms of hard rock, heavy metal, rap, techno-rave, hip-hop, and almost any other music associated with modern inner city culture. Though the result is far from beautiful in the ordinary sense of the word, 'Ballet méchanique' gives rousing, optimistic musical form to the progressive spirit of American industry. After a controversial but successful Paris debut, producer Donald Friede brought the symphony to Carnegie Hall. Friede doubled the number of pianos and xylophones and mounted a real airplane propeller on a wind machine: when it was activated, '[p]eople clutched their programs, and women held onto their hats with both hands'.[12]

1 Dancing mannequin legs and a piece of clockwork blur the boundaries between the eroticised machine and the mechanised woman in this still from Fernand Léger's film 'Ballet méchanique' (image reproduced with permission from the Anthology Film Archives and Tufts University Video Laboratory)

Antheil's reputation never fully recovered from the novel and entertaining disaster that resulted, but his technique for synchronising punched rolls on multiple player pianos led directly to a patent for radio guided torpedoes in the early years of the Second World War.[13] No such torpedoes were ever built, but the technology resurfaced in the frequency sharing circuitry employed in cellular telephones. Just as technology derives its power from eroticism in 'Ballet méchanique', so too did Antheil develop his idea during a cocktail party conversation with movie icon Hedy Lamarr. Before her emigration to America, Lamarr had been the trophy wife of a Nazi arms dealer, which gave her access to technical details about German torpedo design. In 1942, the 'Secret Communication System' was granted patent number 2 292 387. A 19 November 1945 Associated Press feature published in the military newspaper *Stars and Stripes* used the event as a patriotic morale booster ('She said it was lots more fun being scientific than going to the movies').

'Dynamo': the evocative discord of machinery

Eugene O'Neill is generally considered America's first great playwright. His successes earned him the Nobel Prize in Literature and four Pulitzer prizes, yet his ambition led to a number of failures. In 'The aesthetics

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of failure: dynamic structure in the plays of Eugene O'Neill', Zander Brietzke notes that O'Neill 'aspires to write tragedy, but melodrama often results … O'Neill attempts to write a novelistic drama that erases the need for performance, but the failure of that project results in stunning theatre.'[14] According to O'Neill, 'Dynamo' was about 'the death of the old God and the failure of Science and Materialism to give any satisfying new One for the surviving primitive religious instinct.'[15] The play mystified audiences when it appeared in early 1929, at a time when few Americans felt the need for heavy psychological introspection.

One of O'Neill's first great successes and a seminal work of modernist drama was 'The hairy ape' (1922). Yank, a lower class furnace stoker, 'fall[s] in hate' with Mildred, the daughter of a steel magnate. Both are components of the global industrial machine – he the 'thing in fire that makes it burn', and she the 'waste product of the Bessemer process'. While O'Neill's subsequent plays examine contemporary American taboos such as mixed race marriage and Freudian themes such as mother fixation, they seemed to have little to say about technology; however during the middle of the decade he was already working on 'Dynamo', which would develop the technological myths explored in 'The hairy ape' and further explore the themes of adolescent sexuality and maternal fixations which had provided so much dramatic energy to his agrarian 'Desire under the elms' (1924).

As produced, 'Dynamo' was a fumbled psychological examination of the destructive power of sex, guilt, and Oedipal desire, projected against the equally dangerous backdrop of blind faith in technology. The characters are sketchy, and the plot – with two complementary romantic leads influenced by two sets of complementary parents – is predictable, at least until the introduction of the dynamo. The Lights (a pious minister, his smothering wife, and their repressed son Reuben) reside in a cutaway house on one side of the stage. O'Neill seems to wish to attach deep, philosophical significance to Reuben's conversion to faith in Electricity, but because his most lyrical moment is a Whitmanesque pedestrian parody of Genesis ('Let there be electric Light') the speeches are not rhetorically impressive. The Fifes (a pragmatic electrical engineer and his voluptuous, dreamy wife) occupy the other house. Mrs Fife is an Earth-mother figure – a conduit for the life affirming force of the Virgin. In 'Drama and the rhythm of work in the 1920s', Amy Koritz notes that technological critiques in the 1920s often aligned women with natural instincts: 'O'Neill's women likewise are notoriously swamped in the instincts and rhythms of their archaic urges',[16] yet Mrs Fife is fascinated by the dynamos, which, like the mythological (and mechanical) sirens are 'always singing about everything in the world'.

O'Neill's depiction of Freudian complexes is overwhelmed by Reuben's bizarre veneration of the dynamo (Fig. 2):[17]

2 Mrs Fife (left) is entranced by the dynamo, while Reuben (centre) prays to what he believes is the spirit of his deceased mother (Act III of 'Dynamo', Martin Beck Theatre, Glenn Anders & Catherine Calhoun Doucat, Vandamm photo, 1929; Museum of the City of New York, Theater Collection, Gift of the Guild Theatre Inc.)

> It's like a great dark idol … like the old stone statues of gods people prayed to … that part on top is like a head … and below it is like a body … not a man's … round like a woman's … as if it had breasts … but not like a girl … not like Ada … no, like a woman … like her mother … or mine … Mother of Life, my mother is dead, she has passed back into you, tell her to forgive me, and to help me find your truth.

Far from honouring the dynamo as a symbol of humankind's progress towards truth, Reuben's final words, as he recoils from 'truth' and prepares to electrocute himself by grasping the dynamo's breast-like power terminals, identify the encounter as a self-annihilating return to the womb:[18]

> I don't want to know the truth! I only want you to hide me, Mother! Never let me go from you again! *(Reuben's voice rises in a moan that is a mingling of pain and loving consummation and this cry dies into a sound like the crooning of a baby and merges and is lost into the dynamo's hum)*

Because Mrs Fife ends the play by angrily rejecting the dynamo, O'Neill does not appear to endorse Reuben's fatal devotion; but in the final analysis the play offers no viable alternatives.

In his 2001 study, Brietzke finds the ideas worth exploring and the staging interesting, but sees little depth in the script: '[t]o conclude that the dynamo equals mother, equals God, equals the meaning of life is to indulge extreme banality.'[19] Among reviewers

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of the original production, Brooks Atkinson of the *New York Times* was almost alone in finding merit in the play's grand theme.[20] Nevertheless, the play intrigued O'Neill's long time friend and candid critic George Jean Nathan, who judged it a hopeless muddle that 'sink[s] not trivially but with a certain air of majesty, like a great ship, its flags flying, full of holes'.[21] Dana Skinner opines that one of the reasons for the failure of 'Dynamo' was that, by 1929, generators were no longer as mythical and mysterious as they had been when they had inspired Henry Adams. 'Had [O'Neill] taken, not the dynamo, nor even electricity, but rather the mysterious magnetic field from which electric generation emerges, he would at least have been approaching that analogy science has revealed by which magnetism and cohesion can be compared to the binding force of the universe',[22] by which Skinner (a convert to the Catholic faith that O'Neill abandoned as a teen) meant God's love, but which a physicist of today would call Unified Field Theory.

In a memorandum written while abroad, O'Neill asks the Theatre Guild to take special care with the play's sound effects because 'these are not incidental noises but significant dramatic overtones that are an integral part of the composition of the theatre which is the whole play'.[23] The same document specifically warns against 'a generator sounding obviously like a vacuum cleaner'. O'Neill had been at his retreat in Hamilton, Bermuda, in April 1927 and so could not have attended the New York premiere of Antheil's 'Ballet méchanique', but Nathan's review of 'Dynamo' casually refers to 'that boilerworks symphony of Antheil',[24] suggesting that the theatre community would have known exactly what he was talking about. O'Neill felt that the theatre, in skimping on technological sound effects, was missing the opportunity to use one of its best tools for 'expressing the essential rhythm' of modernity. The memorandum continues: 'I would suggest that some special person with the right mechanical flair be sicced on this aspect of 'Dynamo' to get perfect results.'

That special person was Lee Simonson, who had designed the New York premieres of several influential expressionistic plays that dealt rather harshly with technology ('From morn to midnight', 'RUR', 'Man and the masses', 'The adding machine'). He initially found the script 'incredible' and 'strained', but after visiting the Connecticut General Electric plant that had inspired O'Neill, Simonson recreated it in such rapturous detail that O'Neill complained that the looming mechanistic set overwhelmed the play's philosophical and psychological themes. Several years after the play's failure, Simonson, equally moved by the creative powers of the priest, the artist, and the engineer, would write that '*Dynamo*, despite its failure in performance, was more nearly the kind of success that the theatre needs today than hundreds of its present successes.'[25] In Simonson, a modernist can be seen embracing the cultural power of the dynamo that had so horrified Adams.

America's glorious technological future

Even after the 1929 crash that signalled the failure of the stock market's economic machinery, the general public retained its faith in American ingenuity. Corporations had already begun to pay close attention to the emotional and cultural values that middle class consumers attached to their goods, and had hired theatre designers such as Simonson and the better known Norman Bel Geddes, who largely invented the concept of industrial design. While the kind of social drama praised by theatre intellectuals generally presented a bleak view of the technological present, a number of popular books published just before and after the crash capitalised upon the public's fascination with progress. In Hugh Ferriss's 'The metropolis of tomorrow' (1929) and Geddes's 'Horizons' (1932), technologically minded artists pondered the city of the future. These lavishly illustrated works show the influence of Lang's film 'Metropolis' (released in the States in 1927), not just in the design of urban skyscrapers but also in the manner in which they emphasised teeming masses of humanity moving through the streets – less like blood through networks of veins, and more like a viscous fluid pressed into tightly regulated streams, lubricating a great urban machine.[26]

In 'The metropolis of tomorrow',[27] Ferriss briefly considers the psychological effects of the New York zoning laws, as duplicated and applied across the country and throughout much of the world. In order to reduce urban gridlock, these laws restrict the volume of the downtown buildings (and thus the number of people occupying them). To comply with the rules, the lower floors of a building must slope back from the street at a specified angle and the main tower must occupy no more than a quarter of the lot. The unexpected result Ferriss finds aesthetically pleasing, for its vaguely pyramidal shape imbues the downtown landscape with an attractive mystical symbolism, infinitely preferable to endless grids of vertical columns. In an illustration of the multiply arched dome of the Chrysler building, a sunny halo crowns this symbol of human achievement without a trace of irony or rebuke. Lamenting that church spires are now regularly dwarfed by apartment buildings, Ferriss proposes penthouse cathedrals, with room for apartments and offices beneath (Fig. 3). This striking architectural solution is conservative in that it preserves traditional notions of human and divine hierarchy, while it is at the same time radically humanist, for it replaces Peter – the rock upon whom Christ built his church – with a commercial foundation.

Whereas 'The metropolis of tomorrow' aimed for lofty literary insights, Norman Bel Geddes's popular and influential 'Horizons'[29] is a careful consideration of the near future of technology, arrived at by noting recent design trends and projecting them along scientifically plausible lines. In his memoir, 'Miracle in the evening', Geddes describes his idea for lining

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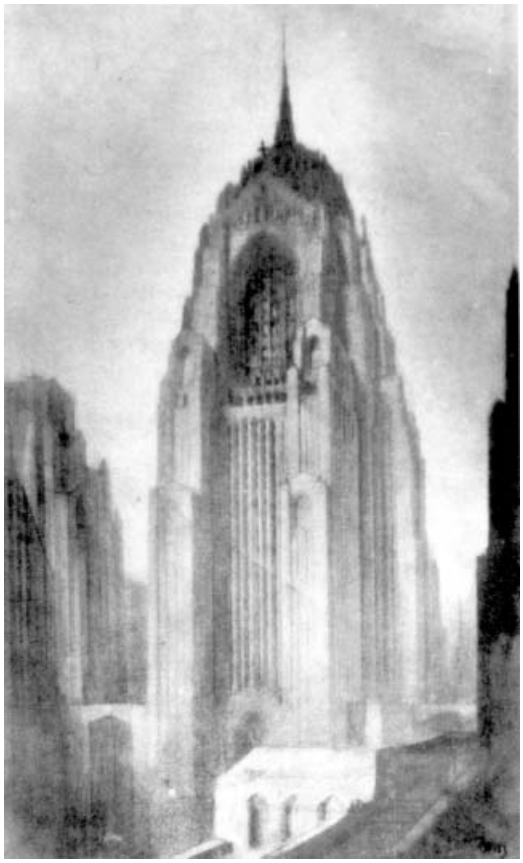

3 Lamenting the fact that church spires are now dwarfed by apartment buildings, Hugh Ferriss proposes penthouse cathedrals (image scanned from the 1986 reprint of Ferriss's 1929 book 'The metropolis of tomorrow',[28] and reproduced with the permission of Princeton Architectural Press)

up spotlights along the front edge of the balcony. The innovation made footlights obsolete, not only removing a visual barrier between the performers and the actors, but also thereby radically altering the direction of modern stagecraft.[30]

Geddes applied his knowledge of theatrical craftsmanship to reinvent himself as a professional industrial designer. He 'would experiment in designing motor cars, ships, factories, railways – sources more vitally akin to life today than the theater'.[31] At a time when few engineers were even experimenting with the technological benefits of streamlining,[32] Geddes tapped into the public's hunger for progress by selling them streamlined versions of countless ordinary household and office products – just as he had streamlined the modern stage by removing the footlights. His solutions to high profile aesthetic and functional problems were ingenious, if not always practical. For example, in detailed designs for an ultrastreamlined luxury liner, Geddes presents what looks like a long, thin armadillo with a retractable upper shell. In order to preserve an unbroken surface (and hence the public's ability to identify the ship as 'streamlined'), the design necessarily reduced the amount of open deck space available to passengers, since each upper deck was slightly smaller than the one below it. The designers of the 'Titanic', when faced with a perceived shortage of deck space, solved the problem in a single stroke by eliminating a row of ugly lifeboats – with infamous results. Geddes's plan solves both problems: the lifeboats would be tucked out of the way in the hull, accessible by a pop out deck to be unfolded when needed. Much like Ferriss's plan for penthouse cathedrals, Geddes's insight is a seamless blending of the aesthetic and the mechanical, of *ars* and *techne*.

Technological regionalism in 'Altars of steel'

Like architects and industrial designers, playwrights require the sponsorship of a deep pocketed patron in order to present their work to the public. During the New Deal era, the Federal Theatre Project (FTP) was an ingenious attempt to support out of work theatre professionals by financing professional quality theatre. While the FTP exposed hundreds of thousands of Americans to theatre and was especially notable in supporting the professional development of African-Americans and other minority groups,[33] in practice the FTP was financially inefficient[34] and politically volatile.[35] Hallie Flanagan, FTP national director, credits the Atlanta production of 'Altars of steel' as a notable Southern success. The staging, the impassioned radical speeches, and the cartoon capitalist recall the common devices of proletarian drama, but the play's dominant message is regional pride in industrial accomplishment: 'If those Yankee iron masters can make steel out of Southern ore, so can I. And by God, I'm going to do it!'[36]

Fatherly and benevolent industrialist John Worth faces two threats: a dangerous radical agitator and an evil northern industrialist. The agitator Draper sows discord among the otherwise happy workers: '[Y]our machine is skilled; *it* produces, you're just there to drop oil, or turn a screw all your days.' Draper mocks the capitalist's perverted creed: 'I believe in STEEL, the Father Almighty, maker of millions in bonus, and in Jung, his only son, our chairman, who was conceived by wars and rumors of war, born of the blood of mankind; he suffered unto Herbert Hoover, was crucified in '29.' This passage, a parody of the Apostles' Creed ('I believe in God, the Father Almighty, Creator of heaven and earth; and in Jesus Christ, His only son, our Lord …'), shocks the on stage workers as much as it probably shocked Bible belt audiences. Nevertheless, Draper's religious rhetoric makes his diatribes vibrant – in his own mind, he is the would be liberator of all the Yanks and Reubens of the world: 'I'll be satisfied if I open the eyes of one poor deluded fool who slaves his life away for a system which uses men to feed the machines for profits.' Worth responds to Draper's attacks with kindness, on the grounds that 'He's so young … And he's a sick man – sick in his mind'. Draper too harshly interprets Worth's fatherly kindness as a sign of complicity, yet he is right about Worth's inability

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to resist the evils of northern industrialism, personified in Jung, in every respect the cartoon capitalist of conventional social theatre; he is further demonised by his northern origin and his foreign name. In the tradition of American slave plantation melodramas, he is the evil northern displacer of the sympathetic but absent master. Although not a dramatically interesting character, the position he represents is vital to the play's dynamic. His ice complements Draper's fire. In the middle is Worth.

Contemporary commentators agreed that 'Altars of steel' – featuring a huge gear shaped stage platform, the sound of machinery running constantly in the background, and a proscenium fitted with great iron doors instead of curtains – was outstanding, but the play's qualified support for industrialism created some controversy. Whether praising the play as an agrarian elegy, attacking it as incendiary agitation, or welcoming it as an indictment of corporate greed, in Atlanta and later in Miami, '[t]hey praised the play. They blamed the play. They fought over the play.'[37] Clifford Odets's 'Waiting for Lefty'[38] (1935) is perhaps the best known American labour play; it climaxes with actors leading the audience out of the theatre crying 'Strike! Strike! Strike!' Hall-Rogers's conditional approval of industrialisation puts 'Altars of steel' at odds with the conventional theatrical approach to labour issues, as represented by Odets.

Records from the Broadway offices of the FTP's playreading department (the purpose of which was to solicit and review proposals for FTP sponsored works) suggest that the political bias of the project's staff members led some first to dismiss the play's potential and later to ridicule its achievements.[39] Louis Solomon calls it 'too naive to merit consideration', while John Rimassa finds it not 'geared for emotional or character appeal'. M. Portner [?] suggests that 'an intelligent director might prune it a bit and make a half way decent production out of it'. Radical dramatist John Wexley admits in principle that 'the situation of the well-meaning employer is intensely interesting' but charges that 'it is comparatively a minor problem and one that should be subordinated to the major one'. His report predicts that 'Federal Theatre audiences would find the play, in its present state, very uninteresting and in many places ludicrously unreal'. Hiram Motherwell clipped a glowing review from an Atlanta paper and routed copies to 'all who enjoy a good laugh'. Francis Bosworth (with perhaps a trace of condescension) argues that 'the staging makes it worth doing' and that it 'may be easily accepted in the South as it stands'.

Looking back, FTP Director Hallie Flanagan rejects the notion that the play succeeds simply because of its staging, and speaks out against the kind of bias evident in these responses to 'Altars of steel'; yet she must have known that a public debate which accused a Federal Theatre presentation of being too conservative would help deflate ongoing allegations that the FTP was a front for Communist agitation – arguments that threatened her vision of the FTP as a permanent, nationally funded theatre, rather than the temporary work relief organisation that legislators envisioned. In the 1999 movie 'The cradle will rock', director Tim Robbins presents a supposedly historical version of the events surrounding a different FTP production, Marc Blitzstein's left wing musical of the same name. Biographer and music critic Terry Teachout sees the film as Robbins's attempt to twist history to support the argument that 'had the Federal Theatre Project been allowed to continue disseminating state-subsidized left-wing propaganda, the soul of America might have been saved' from 'corporate fascism'.[40]

Like 'Dynamo', 'Altars of steel' raises important issues; like 'Dynamo', it does not always present them in a dramatically compelling manner. The dialogue is frequently stiff and didactic: 'What damn fools these big corporations are. Don't they know their methods will eventually destroy them?' Worth's climactic speech before an angry mob is little better: 'Why destroy everything we have in common? Listen to reason, men! Stop this bloodshed!' According to the stage directions, this speech is sufficient to leave both a squad of armed guards and a mob of rioters '*spell-bound*', yet little in those lines impresses a critical reader. Draper's fiery rhetoric, on the other hand, is theatrically effective. Also worth recognition are instances of proletarian wit in the factory riot scenes. One grieving widow, faced with the threat of tear gas, retorts: 'Tear gas, is it? Do you think it'd have any effect on these eyes? They've done cried themselves out.' Although the play does present the anguish of the workers and their families, the central victim is clearly Worth.

The ambitious mechanistic set of 'Altars of steel' featured a towering gear shaped platform. In another context, this expressionistic element might invite a critique of the power held by capitalists; however, the play sounds notes of alarm only when Jung or Draper threaten the status quo. The play also locates power in the 'Inspection Choreography', a pantomime tour of the factory shortly after Jung's arrival; this pantomime is not described in detail in the script, but its function is almost certainly to showcase the harmonious workings of the factory under Worth's paternal stewardship. The huge gear shaped altar is not a false idol, like that depicted in O'Neill's 'Dynamo' or in the biblical story of the Tower of Babel; rather it is a monument to the tremendous power the South stands to lose. Despite Jung's attack, the altar remains an image of strength and possibly even comfort – a refuge against Communism on the one hand and northern aggression on the other, much as Ferriss's penthouse cathedral was a modernistic defence of religion against materialism. Nevertheless, because the sympathetic characters are so static, the message of the radical drifter appears to be more central to the play's dramatic effect. Perhaps influenced by the many proletarian staging elements, Malcolm Goldstein mistakenly identifies 'Altars of steel' as a

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pro-labour play,[41] even though any sensible analysis of the action will note that the labour activist murders the hero.

Susan Duffy is the author of the only substantial scholarly treatment of 'Altars of steel' of which I am aware. While questioning its literary merit, she praises it as a spectacle of technological and regional pride: 'Technology, the play argues, is safe in the hands of southern industrialists who understand and value the land and its people.'[42] Within the context of a regionally biased but otherwise politically moderate play, Draper is a rhetorically effective agitator for Luddism and anarchy; however, Duffy appears unwilling to accept him as the dangerous threat the script requires him to be. She implies that he has been done an injustice when he is 'labeled a "communist" ' for carrying what she describes as 'union literature'.[43] Yet the 'Hand Property Plot' filed along with the script in the FTP records specifies 'bundle of papers (communist literature) for Draper'. Further, the script tells us that they are titled 'WORKERS, UNITE, FIGHT', and Draper conceals them in his jacket along with a gun. These details should be sufficient to establish that his motives do, in fact, go far beyond simple reform – especially when he incites the mob at the factory gates, crying 'tear down the walls of capitalism and march in here a united band of comrades'. The issue is not, as Duffy argues, that the play associates the unions with violence, but rather that the play associates unions with communism. By focusing too strongly on Draper's voice, Duffy skews the central message of the play and the meaning of his death, claiming that 'Draper's role is that of a martyr'. Glossing over the fact that in the end Draper actually kills Worth, she prefers to see the two men on the same side, with Worth 'a benefactor who upholds the very values Draper sees being eroded in modern business practices'. As a drifter, a newcomer, an agitator, and eventually a murderer, Draper is not a sympathetic character – despite Duffy's claim that '[h]is perceptions parallel that of the audience'.[44]

The agrarian content in 'Altars of steel', delivered via experimental, mechanised staging techniques, provides a strong regional spin on the anti-industrial, anti-urban message of some of the most critically acclaimed drama of the 1920s. The play does not concern itself directly with the isolated individual but rather with the community. That community is not completely egalitarian, for Worth privileges his son, Jack. The strongest feminine presence is, in a possible allusion to 'Dynamo', furnace Number Four. Jung's appropriation of the plant violates this image of domestic harmony, a disruption that the labourers equate with possession of Number Four as a sexual object: 'Mr Jung's old hussy is just as greedy as when she belonged to Old Man Worth.' Unlike the workers Worth has no wife to mourn him, and his son has no mother to comfort him; yet the agrarian family extends to the very machines themselves. An educated young man who has seen only disappointment in the big city, Jack advocates a more relaxed, even selfish response to the local political pressures – 'Let's go fishing and forget it.' While praising Worth's humanity and the humane industrial community he initially built, the play indicts his lack of action when northern aggression backs him into a corner.

That weakness has at its source the mollifying regional sense of inferiority that the southern agrarian movement wished to challenge. Hall-Rogers argues that the South must fight northern industrialisation, not by rejecting technology, but rather by ensuring that the South remains in control of the means of production. Worth may be at fault for dismissing Draper's warnings too quickly, at great cost to himself; but in the final analysis Atlanta audiences would certainly have preferred the protagonist's sanguine humanity to Draper's choleric activism. To Hall-Rogers, industrialism is bad when it is controlled by northern greed; it is good when it is guided by regional pride. 'Altars of steel' sympathetically presents the collapse of Worth's industrial heritage, while celebrating his humanity.

Conclusion

O'Neill's 'Dynamo', together with his earlier 'The hairy ape', presented technology as destructive, but as providing a hypnotic illusion of power. Other expressionistic drama of the same period, including Elmer Rice's 'The adding machine' and Sophie Treadwell's 'Machinal', expressed similar themes. The Federal Theatre Project's 'Altars of steel' presents technology as a potential good, when controlled by the right people. Within the FTP, plays such as 'Power' advocated federal control of utilities, and beyond it Odets's 'Waiting for Lefty' advocated powerful unionism. As America geared up to join the Second World War, and afterwards as a generation of farm boys came home as jeep mechanics and their sisters and wives experienced factory work, the nation continued to move away from the agrarian ideals of its founders.

The first practitioners of 'art in industry' felt that projecting the desires of the human spirit through the production of more aesthetically appealing commodities and appliances would bring harmony and beauty to an otherwise dehumanising machine age. The public apparently agreed: the Geddes imprint on a machine casing immediately supplied the machine with cultural cachet; further, his General Motors 'Futurama' showcase for the 1939 World's Fair is regularly cited as an important inspiration for America's interstate highway system. Although the Second World War scuttled Geddes's plans to pack his exhibit into a touring blimp, his sincere and lofty optimism offered hope and sold products to a public eager for the prosperity they glimpsed, in President Roosevelt's terms, 'just around the corner'.

Yet never in these optimistic speculations are we asked to confront the prospect of a dime a dozen

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travelling salesman of the future, fretting about how to come up with the next payment on a magnetic suspension tube or personal dirigible. That sort of personalised, individual contact with imagined technology is left to the literary authors who built upon the theatrical experiments of the 1920s and the psychological and political themes explored during the 1930s. Later playwrights such as Thornton Wilder, Tennessee Williams, and Arthur Miller – working with backstage professionals such as designer Jo Meilziner and director Elia Kazan – would incorporate expressionistic staging techniques with psychologically complex characters (rather than melodramatic or didactic representations of good or evil), expressing American themes of technology and culture in dramatic works that were (and still are) considered critical successes. The artisans and art of any age both depend upon and determine the techniques in practice at the time; *ars* and *techne* are inseparable: 'Before the dramatist can write a play for the theatre, the theatre has to be there.'[45]

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