On 3 July 1987, ten thousand spectators looked on as the Bougainville, last ship to be built in Nantes, slipped into the Loire. A spectacular feat: a hull 113 metres in length had to enter a portion of the estuary just 150 metres wide. The crowd gathered on the Loire’s northern bank along the Quai de la Fosse, once home to shipbuilding activity itself but by that time a stretch of cafés and bars frequented by Nantes’ working classes. It was early evening, the hour for an aperitif among friends, but the atmosphere that day was sombre. Writer and architect Thierry Guidet later recalled, ‘A ship launch had always been a celebration, but not that time. […] The city was living the end of an ancestral activity, of a culture, of an era, of a source of wealth.’

The day after the Bougainville’s departure, journalist Dominique Luneau lamented, ‘The naval construction that has fashioned the city for centuries is no more than a memory.’ Luneau remembered the crowds that would assemble to watch every launch – tens of thousands for the grander ships – and asked, ‘Tomorrow, what will gather such a crowd in Nantes?’

On 30 June 2007, tens of thousands of people gather for another launch in the park that used to be the shipyards. A 12-metre-tall mechanical elephant emerges from a hangar. Though enormous tyres support the puppet’s weight, it appears to walk on treading feet. It raises its flexile, reticulated trunk above its formidable wooden tusks. It trumpets. It sprays mist from its trunk at squealing children. Its eyes
Working memories

 blink, its tail swishes, and its ears flap. Constructed by street theatre company La Machine from wood and steel, with leather for the flapping ears, the hydraulically powered behemoth carries forty-five passengers along the banks of the Loire (see figure 4.1). The Great Elephant is the first completed project of Les Machines de l’île (The Machines of the Island, 2007–), a tourist and cultural destination based in the Naves, three former metal fabrication shops. Members of La Machine use two of the three Naves as metal and woodworking shops; here they construct the interactive mechanical animals that will become part of future urban installations. The third Nave shelters the Great Elephant and also houses the Machines Gallery, in which visitors may view and test La Machine’s works in progress (see figure 4.2).

The launch of the Great Elephant was the most spectacular aspect of an ongoing theatrical endeavour that is supposed to propel Nantes forward into a creative economy while commemorating the industrial heritage of the shipyards. La Machine divides its work into three categories: construction of theatrical machinery for other theatre companies, creation of original theatrical performances, and installation of long-term urban projects like Les Machines de l’île. Prior to the founding of La Machine in 1999, artistic director François Delarozière designed many of the

Figure 4.1 The Great Elephant carries riders along the banks of the Loire, Les Machines de l’île, Nantes, 2010.
large-scale puppets for Nantes-based street theatre company Royal de Luxe. Delarozière continues to collaborate with Royal de Luxe under the aegis of La Machine, which has also designed and constructed theatrical machinery alongside street theatre company Cirkatomik and numerous individual performers. La Machine also maintains a touring repertoire of its own productions, all of which dispense with plot and character to focus on the interaction between machines and the urban landscape. According to the company’s official website, La Machine creates work based on the theatricality of machines and the language of movement. Delarozière identifies the imaginative and bodily encounter between spectator and machine as the theatrical event. Thus the distinction blurs between La Machine’s touring performances and a visit to the company’s workshop in the Naves, which Delarozière has called ‘continuous theatre’ (théâtre en continu). In what follows I do not address La Machine’s touring productions, but instead focus on the continuous theatre of Les Machines de l’île and the work required to make it intelligible to the people of Nantes as both a cultural and an industrial project. This work is ultimately historiographic: Les Machines de l’île must simultaneously represent to its visitors continuity and progression, persistence of and improvement upon past repertoires.
From the launch of the *Bougainville* to the launch of the Great Elephant, the former shipyards in general, and the Naves in particular, emerged as Nantes’ most hotly contested symbolic space. In public meetings, interviews, pamphlets, and the press, defenders and detractors of the Machines de l’île project clashed over how best to commemorate industrial heritage while strengthening Nantes’ position in an increasingly competitive urban-global economy. City leaders have adopted what Laura Levin and Kim Solga call the ‘creative city script’ as an official cultural and economic strategy; they hope to position Nantes as a European leader in architecture, design, new media, digital innovation, research, and the fine and performing arts. Crucial to this strategy is the redevelopment of the Ile de Nantes, the island in the Loire, just south of the city centre, that served as Nantes’ shipbuilding hub from the nineteenth century to the launch of the *Bougainville*. Much of the former shipyards has been converted into a park. Traces of the island’s industrial past remain embedded in the landscape: concrete pillars that once supported workshop roofs, tracks in the pavement that once enabled workers to move heavy materials with ease, the two massive cranes that once lifted prefabricated portions of a ship’s hull from workshop to slipway for final assembly, and even the slipways themselves.

As part of the redevelopment project, La Machine plans to create on this island a total of ten urban installations. Some of these installations will serve as public space. Plans for the Heron Tree, for instance (scheduled to open in 2021), depict a network of freely accessible elevated garden walkways in the shape of an enormous tree. At the top of the structure, (paying) riders will be able to board gondolas in the shape of mechanical herons from which to look out onto the city. Other Machines resemble elaborate versions of more traditional urban entertainments: the three-storey Marine Worlds Carousel (opened 2012) features interactive mechanical sea creatures instead of the usual immobile horses, carriages, and cars. Still others, like the Great Elephant, are ambulant Machines carrying passengers from one place to another. Visitors to the Naves, the project’s base of operations, may pay to enter the Machines Gallery, where smaller machines (such as the larger-than-life mechanical insects that will eventually grace the Heron Tree) are displayed before their incorporation into the larger installations (see figure 4.3). Paying visitors may also observe the company members of La Machine as they build new machines in their adjacent workshops. The workshops beneath the Naves have become the construction site in which members of La Machine, in concert with Nantes’ residents, forge a new – but familiar – cultural identity for the island and the city. The circulating discourse surrounding the Machines de l’île project, the
Frédérique de Gravelaine, an independent urbanism consultant hired by Nantes Métropole to chronicle the Ile de Nantes redevelopment, writes, ‘All public space is also a space of representation, where cities exhibit their vision of themselves and their future.’ Such exhibition occurs via discursive performatives and embodied performances. Urban communications campaigns and their amplification in the media have performative effects; they establish a range of interpretive possibilities. Other social actors alternately benefit from, strengthen, test, or contest these discursive frames. La Machine is both beneficiary and agent of an official narrative that newly turns the Naves into a public space for an aspiring creative city. The Naves’ (and the island’s) discursive, embodied, and architectural reconfiguration as both public space and work space dialectically sustains and is sustained by the economic shift from heavy industry to cultural industry. The debates and negotiations that rescript the Naves simultaneously construct the discursive and material conditions of possibility for Nantes’ creative economy. This chapter
explains how, in the twenty years from the launch of the *Bougainville* to the ‘launch’ of the Great Elephant, the Naves, the former shipyards, and the Ile de Nantes became intelligible as public workspace in which the performances necessary to the creative economy might take hold. Discursive performatives, embodied performances, and architectural renovations have resurfaced the Ile de Nantes, gradually smoothing over historical rupture in favour of continuity and flattening historical layers of use and reuse in favour of simultaneity.

### Inventing the Ile de Nantes

The Ile de Nantes is a by-product of the shipbuilding industry. Nantes’ first shipyard was installed on the Quai de la Fosse in 1668 with financial backing from Colbert, minister of finance to Louis XIV. From that date through the height of French imperialism in the nineteenth century, a spatial division of labour emerged in which Paris merchants distributed goods throughout the nation and Nantes merchants distributed goods throughout the empire. Shipbuilding perpetuated and was perpetuated by Nantes’ role as the slave-trading capital of France and the pre-eminent port for trade with the colonies. Merchants setting out from Nantes reaped hefty profits exporting French textiles, capturing or purchasing Africans as chattel slaves, and importing colonial sugar. Textile production, particularly cotton and printed calico (Lyon having a monopoly on luxury silks), remained the primary industry of Nantes throughout the eighteenth century. Sugar refineries began to appear towards the end of the eighteenth century, and in the nineteenth century surpassed textile production as Nantes’ most profitable industry. By 1844, sugar refineries accounted for a full third of Nantes’ industrial business. Shipbuilding accounted for almost 20 per cent.¹⁰

Though shipbuilding was not the city’s most profitable industry, it surpassed all others in its transformation of Nantes’ urban and fluvial landscape. Early in the eighteenth century Nantes’ urban development pushed shipbuilding activities west to Chézine and gradually further west to Chantenay. Other shipbuilding activities developed on the Prairie-au-Duc, one of numerous small islands in the Loire. As Nantes grew, shipbuilding activities became concentrated here and at Chantenay, and as naval construction grew, the Loire was dredged to accommodate larger shipyards building larger ships. Seventeenth-century maps of Nantes depict a latticework of bridges connecting some ten or twelve small

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¹⁰ In 1873, the Nantes prefect found that the city had as many bridges as the inhabitants! - David Calder - 9781526147288

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islands to each other and to the Loire’s northern bank. With the growth of the shipbuilding industry, dredging operations displaced silt to the smaller fingers of the river, gradually forming a single land mass out of multiple islands. The northernmost islands became part of the mainland, while the others formed what is today the single Ile de Nantes. The numerous small shipyards and numerous small islands of the eighteenth century gradually ceded to three major shipyards – Dubigeon, Ateliers et Chantiers de Bretagne (ACB), and Ateliers et Chantiers de la Loire (ACL) – in two major locations, the slopes of Chantenay (Dubigeon) and the one newly formed island in the Loire (ACB, ACL). Nantes, once dubbed the ‘Venice of the West,’ soon consisted of one mainland merchant city north of one industrialized island.

The Ile de Nantes’ physically unified topography belies its persistent morphological and demographic fragmentation. Neighbourhoods retain their designation as separate islands (île Beaulieu, île Sainte-Anne, île de la Prairie-au-Duc) and their distinct identities. Though the entire Ile de Nantes is just one of the city’s eleven administrative districts, the National Institute for Statistics and Economic Studies (INSEE) divides the district into four neighbourhoods: Sainte-Anne-Zone Portuaire, west of boulevard Léon Bureau; République-Les Ponts, morphologically similar to Nantes’ right bank and linked to that bank by four bridges; Beaulieu-Mangin, oriented more toward the south and frequently grouped with the Nantes Sud district; and Île Beaulieu, encompassing both the public housing tower blocks and the undeveloped green space on the island’s eastern tip. Morphologically, the western Sainte-Anne and Prairie-au-Duc bear all the marks of the centuries-long shipbuilding industry, while the eastern Beaulieu exemplifies the massive French housing projects of the 1960s, 1970s, and 1980s. Both ends are characterized by large plot sizes, but in the west these are almost entirely paved (or still covered by vast, abandoned industrial buildings), while the eastern plots feature single residential towers surrounded by green space. Separating these areas is a central district formed by shops, cafés, and residences largely indistinguishable from their counterparts across the Loire. Drawing on demographic data collected by INSEE, sociologists and urbanists of the research group Langages, Actions Urbaines, Altérités (Languages, Urban Actions, Alterities, or LAUA) divide the island at Boulevard des martyrs nantais into just two parts, the western Prairie-au-Duc and the eastern Beaulieu. From 1975 to 1990, a span encompassing Dubigeon’s decline following the 1973 oil crisis and its 1987 closure, Prairie-au-Duc lost 989 residents while Beaulieu gained 3,144 new residents. Industrial buildings and working-class residences on the Prairie-au-Duc were abandoned and demolished, while new
construction continued to spring up on Beaulieu. Both halves suffered from high unemployment, but the west’s 15.8 per cent dwarfed the east’s 10.4 per cent rate.¹¹

Few locals appreciate (or even use) the island’s new official name. André Péron, former president of a collective of industrial heritage associations, explains, ‘No one from Nantes would have given this island the name Ile de Nantes. Ile de Nantes, it’s for someone seeing things from the outside or for the outside.’¹² The author of a letter to the editor in daily newspaper Ouest France derided the name for making no connection to the city’s rich history; since an island in Nantes was to be named the Ile de Nantes, the author wryly suggested that Beaujoire stadium be renamed Stade de Nantes, the neoclassical Graslin opera house be renamed Théâtre de Nantes, and the Bretagne Tower be renamed Tour de Nantes. This, he wrote, would clear up any confusion about one’s geographic location.¹³ Today, former shipyard workers and their political allies continue to refer to the island as the Prairie-au-Duc. New residents call it simply ‘the island.’ The Ile de Nantes, for them, is redundant.

The goal of the Ile de Nantes redevelopment is thus to assemble a cultural whole from disparate morphological and demographic parts, to generate a unified affective geography for an invented island: ‘The genius of the project (which both unites and sets apart) rests in its conciliatory capacity. Its task is to compose a whole (the Ile) from disparate elements (the different neighbourhoods, their names, histories, customs) and affirm the city’s intention to accept heritage in its totality and its diversity.’¹⁴ In stark contrast to the homogeneous, high modernist urban projects that dominated French architectural theory and practice for much of the twentieth century, the Ile de Nantes project represents an attempt to create a unified but heterogeneous open system characterized by the coexistence of new structures and repurposed old ones. Alexandre Chemetoff, chief urbanist of the Ile de Nantes from 2000 to 2010, won the open call for redevelopment proposals in large part due to his flexible Plan-Guide, a processual model of redevelopment that stresses constant dialogue and respect for traces of the island’s past. But if Chemetoff opposes his Plan-Guide to high modernism’s tabula rasa, he also writes that every new construction or renovation must be ‘symptom, […] witness, and demonstration’ of the greater whole.¹⁵ Chemetoff insists that each individual lot represent the entire Ile de Nantes project in microcosm and further the ongoing interplay among residual parts and emergent whole.

Chemetoff’s Plan-Guide has become a model throughout France for flexible, diverse urban redevelopment. In 2000, before its implementation, it won him the Grand Prix de l’Urbanisme, awarded annually
by the French Ministry for Ecology, Energy, Sustainable Development, and Planning. The Plan-Guide exemplifies what sociologist Laurent Devisme, borrowing from Luc Boltanski and Eve Chiapello, has dubbed the ‘new spirit of urbanism.’ For Devisme, Chemetoff’s Plan-Guide is contemporary capitalism’s architectural counterpart; its author presents it as a solution to the alienation imposed by high modernist urban planning while obscuring the real socioeconomic precarity that can result from a rhetoric of openness and flexibility.

I will return to these concerns in the second half of this chapter. In what immediately follows, I perform the same operation on the Plan-Guide that the Plan-Guide performs on the Ile de Nantes: whereas Chemetoff’s proposal insists on dialogue with existing structures, I insist on the role of former shipyard workers and interim projects in establishing the Ile de Nantes as open, public space. Nantes officials’ ‘intention to accept heritage in its totality and diversity’ did not emerge from nothing, but resulted from decades of negotiation leading up to and following the closure of Dubigeon. Shipyard workers’ efforts to link their industry to Nantes’ cultural identity laid the groundwork for redevelopment.

Dubigeon’s 1987 launch of the Bougainville marked the official end of a long period of decline for Nantes’ shipbuilding industry. The French military market kept the Nantes shipyards busy until the Nazis entered the city on 19 June 1940. In 1942 and 1943 British and American air squadrons devastated the Prairie-au-Duc to thwart German submarine repairs. The Germans finished the job themselves, leaving the ACL and ACB in ruins when they retreated from the city on 10 August 1944. Dubigeon, still at Chantenay, escaped the worst of the bombing but was still too damaged to launch ships. Postwar physical reconstruction of the shipyards required a full year and massive government subsidies; economic reconstruction proved still more difficult. The shipyards prospered in the 1950s, building submarines and other military vessels for France and its allies, but continued to draw heavily on government subsidies and contracts. Even during the Trente Glorieuses, France’s thirty continuous years of postwar economic growth, Nantes’ shipyards underwent numerous reorganizations and required substantial state subsidies to stay afloat.

The 1950s and 1960s were marked by frequent mergers and restructurings; shipyard directors hoped that local consolidation would better position Nantes’ industry to stave off increasing foreign competition, first from Britain and Scandinavia, then from Japan and South Korea. In 1955, ACL merged with shipyards in Normandy to become the Chantiers réunis Loire-Normandie (CRLN). Just six years later, in 1961, this shipyard merged with the ACB to form the Ateliers et Chantiers
de Nantes (ACN). The ACN became the Société financière et industrielle des Ateliers et Chantiers de Bretagne (SFI-ACB) in 1966. Finally, SFI-ACB ceded all its shipbuilding activities to Dubigeon in 1969, and Dubigeon moved from the Chantenay location it had occupied since 1840 to take over the facilities on the Prairie-au-Duc. SFI-ACB then restored its simpler designation, ACB. However, from 1969 ACB had no role in naval construction, instead taking on contracts from the rail and aeronautics industries.

More than mere name changes, each merger listed here entailed massive job losses and either anticipatory or ensuing strikes. Shipyard workers accused their bosses of mismanagement, claiming that the industry could remain viable by specializing in smaller, less glamorous ships (particularly for the military market) and ceding larger projects to Asian firms. Instead, the directors took on contracts for increasingly grand ships (such as the cruise liner Scandinavia) in an attempt to promote Nantes’ image with future clients. Such projects did attract media attention but also drove the Nantes shipyards to bankruptcy. In a 1985 interview, union representative Alain Noblet explains, ‘Last year, they tell us: ferries and cruise ships are done, we’re reorienting toward the military, modifying our investments, how we organize and train our personnel. Today it’s a 180 [degree] turn back to the civilian market. […] They’ve thrown out the plan to save Dubigeon.’ Managers and politicians blamed increasing foreign competition for Dubigeon’s losses, but union representatives observed that Nantes’ shipyards were losing jobs at a much higher rate than elsewhere in France: between 1959 and 1986, Nantes shipyards lost 88 per cent of their workforce, compared to 55 per cent in Saint-Nazaire, 49 per cent at Dunkerque, and 38 per cent at la Seyne. If all French naval construction was suffering, Nantes was suffering more than most.

While lobbying to save their jobs, shipyard workers walked a fine rhetorical line between the danger and difficulty of their work and their satisfaction in performing it. At one meeting of workers, Serge pulls a tee shirt from his bag. It is riddled with holes. ‘Look, I go through two a week. When you work [as a solderer], you’ve got 300 amperes that go through your body. You’ve got to pay attention, shake it off, it burns you everywhere.’ He rolls up his sleeves. Red marks on his skin. ‘There’s our work. Soldering, lying flat on your stomach because in the ballast in the depths of the slipway, there’s no other way to put yourself. We would crawl inside the boats with our tools into these crevices a metre wide. All that for thirty years. And they just kick you to the curb!’

Numerous shipyard workers referred to their dismissal as being ‘kicked to the curb like a dog.’ By showing reporters the physical damage done
to their bodies during decades of shipyard labour, they gave corporeal expression to the emotional damage inflicted on them by management.

In the years immediately following Dubigeon’s closure, descriptions of workers’ physical scars ceded to imagery of a wounded landscape. By 1991 the city had demolished most of the Prairie-au-Duc’s industrial structures; those that remained stood empty. One journalist noted an ‘air of catastrophe’ permeating the site and cited the pangs of regret experienced even by the head of demolitions: ‘I’m not a demolitions man with a big heart […] but this one hurts.’22 One year later, a second journalist compared the site to the ruins of Pompeii and remarked, ‘Dubigeon resembles a few poor children’s toys abandoned in an empty lot. The clandestine visitor to this desolate site is at once appalled and fascinated by the destruction that has made tabula rasa of the past.’23 Articles in the press alternately treated the site as rich with history or as a clean slate (or, in the case cited above, as both at once). Local press, elected officials, and former shipyard workers agreed that the city required a period of reflection, even mourning, before redevelopment could begin. Imagery of scars and wounds dominates this period, establishing an implicit link between the traces of manual labour marking the bodies of shipyard workers and the traces of industrial use still marking Nantes’ fluvial landscape. Rehabilitation of the shipyard site – specifically, a project to commemorate industrial heritage – promised to heal some of the damage. ‘The former shipyard workers await the rehabilitation of the site. At least for the wounds not yet scarred over.’24 On his election to the mayoralty in 1989, Jean-Marc Ayrault announced, ‘The closure of the shipyards has wounded Nantes, but the city’s fate will be played out here.’25 The wounds inflicted on shipyard workers were symbolically separated from their physical bodies and reimagined as collective psychic wounds inflicted on the city of Nantes.

In order to engage the citizenry in the ‘playing out’ of Nantes’ fate, institutional and associational actors attempted to reconfigure the shipyard site as public space. As city officials and workers pondered the long-term future of the former shipyards, the municipal government actively encouraged temporary appropriations of the site. The city leased the Naves to two resale outlets, La Trocante and Destock Ouest, and an auto shop. Two metal fabrication shops (separate from the Naves and now destroyed) provided space for theatre companies: one as a warehouse and rehearsal space for street theatre company Royal de Luxe, the other as the location for Théâtre la Chamaille’s site-responsive staging of Othello (1990), which made climactic use of the structure’s retractable roof.26 The city of Nantes sanctioned both of these projects. In an unsanctioned move, architecture and fine art students appropriated the
Blockhaus, a concrete structure adjacent to the Naves used as a workers’ bomb shelter during World War II, as free studio space. These students enjoyed the unspoken protection of their institutional affiliations, Nantes’ prestigious grandes écoles of art and architecture, which shielded them from eviction. Professors soon incorporated Blockhaus projects into their curricula. Finally, the least officially sanctioned appropriation of the space was its use as a training ground for aspiring graffiti artists. The city, however, took no legal action against the muralists, who were occasionally commissioned by local businesses (including La Trocante) to decorate their exterior walls. In 1999, the city of Nantes relocated its annual Summer Festival from the Castle of the Dukes of Brittany to the former slipways and metal shops of Dubigeon. The covered slipway on which workers once assembled top-secret submarines for the French Navy became the music festival’s largest stage. When asked if he was shocked to see his place of work become a concert venue, former shipyard worker Gérard Tripoteau replied:

On the contrary, it warms the heart to see the people of Nantes appropriating the site. When these were the shipyards, they didn’t come here, they just saw them from the quay. The great moments of communion were the ship launches. [...] This isn’t any old place. People see the traces. They necessarily mark them. They can’t escape the shipyard: they see the slipways, the pillar foundations. The functionality of the site is still there. The festival spoils nothing.27

Tripoteau goes on to argue that the festival proves the value of fighting to preserve the island’s industrial structures. Converting existing structures to new uses, he suggests, can potentially connect the citizens of Nantes to their city’s industrial heritage. Temporary appropriations of the shipyards, in particular the wildly popular music festival, proved critical in encouraging Nantes residents to assume symbolic ownership of the site.

Tripoteau’s warm reception of the Summer Festival is indicative of a phenomenon common to most heritage preservation efforts: the strategic expansion of symbolic networks. The rhetorical shift from the physical wounds of workers to the symbolic wounds of a city parallels a broader shift in ownership. A city government or private developer will more likely spare the wrecking ball if multiple, collaborating interest groups claim a building as significant. To save the headquarters of the Ateliers et Chantiers de Nantes, the Association for the History of Nantes Naval Construction (AHCNN) appealed not only to works councils throughout the region but also to architects and architectural historians, who then argued for the building’s restoration on aesthetic
grounds. The most successful preservation efforts surpass the limits of interest groups entirely and appeal to a site’s universal value. Former factory workers stand a better chance of saving a structure if it symbolically belongs not only to them but also to an entire city (or, with the advent of UNESCO World Heritage Sites, to all humankind). Shipyard activists made their history public property: ‘the history of the shipyards is the history of all Nantais, it’s the history of Nantes for the last 2,000 years.’

28 Class-based claims to ownership more often than not cede to place-based ones in debates over heritage preservation. Claims to universality enable activists to preserve material heritage, but those claims simultaneously and performatively efface the historical particularities that made preservation efforts worthwhile in the first place. This is the paradox of patrimony.

In the early 1990s, defenders of Nantes’ industrial heritage welcomed cultural appropriations of the shipyard site in the hope that these temporary measures (be they short-term leases to Royal de Luxe or events like Théâtre la Chamaillle’s Othello and the music festival) would reconnect the people of Nantes to the shipyards and generate interest in a permanent redevelopment project in keeping with the area’s history. After Othello, Tripoteau cited the production’s success as evidence that the shipyards were ‘still in the hearts of the people of Nantes.’

29 City officials, too, encouraged short-term cultural projects, but as a way of instilling confidence in their own tentative redevelopment plans. In both cases, cultural projects sustained the site’s working memory, but each interest group emphasized a different temporal aspect: shipyard workers sought to keep the past present, while city officials sought to suggest the possibility of closure. Both strategies involved the symbolic expansion of the site from working-class heritage to Nantes’ urban heritage. Cultural appropriation of the shipyards laid the groundwork for the ongoing discursive, structural, and embodied reconfiguration of the shipyards as public space, a tripartite reconfiguration that soon became centred on the Naves and the work of La Machine.

Reopening the Naves

The ACL had the Naves constructed as metal fabrication shops between 1904 and 1920. Founded by Louis Babin-Chevaye in 1881, the ACL quickly established itself as a financial and organizational innovator in Nantes’ competitive shipbuilding industry. Whereas engineers,
architects, or local merchants had founded Nantes’ older shipyards as small family businesses, the ACL began with substantial investment from Paris financiers. The ACL required substantially more start-up capital than other shipyards because it consolidated previously separate shipyard trades – hull construction and metal fabrication – within a single, massive enterprise. The Naves and their adjoining workshops were the architectural expression of this organizational paradigm shift from the factory system to proto-Fordism. The 1921 General Plan of the Loire shipyards depicts a vast line of hangars forming an acute angle with Boulevard Léon Bureau and transected by rail to permit the transfer of prefabricated ship segments from one shop to another. This did not, however, result in a streamlined, Fordist assembly chain. In fact, some items constructed under the Naves were not even destined for naval use. According to the 1921 plan, the easternmost Nave housed locomotive boiler construction. Proceeding westward, the next Nave housed metal pressing, metal shaping, and hull tracing; the next (and final surviving) Nave housed marine boiler construction.

The area immediately adjacent to the Naves – and not the Naves themselves – became the focus of most preservation efforts. Several years before the official closure of the shipyards, Dubigeon’s comité d’entreprise began gathering records of all ships ever built in Nantes (the earliest dating to the thirteenth century) to preserve the city’s maritime heritage, but also to document the changing techniques of naval construction and their affiliated forms of labour. The initial result of this project was a regular weekend exposition, open to the public, that attracted over 4,000 visitors between June 1984 and May 1986. The team responsible for establishing the collection eventually became the Association de l’Histoire de la construction navale de Nantes (Association for the History of Nantes Naval Construction, or AHCNN), which, alongside the Maison des Hommes et des techniques, lobbied Nantes’ municipal government for preservation of the former shipyards as a maritime cultural centre. Nearly every structure that would have been preserved under the AHCNN’s plan has since been demolished. The proposed Maritime Cultural Centre would have preserved the wood and iron shops immediately to the north of the management offices, the covered slipway that housed submarine construction and shielded its secret contents from prying eyes, and an additional hangar to the west with a retractable roof (the hangar in which Théâtre la Chamaïelle performed *Othello* in 1990) that permitted the neighbouring 80-ton crane to lift out pre-assembled hull segments. The Naves that currently house La Machine are notably absent from the AHCNN’s sketch, as they were never part of Dubigeon. The area immediately in front of the
Naves, which is now the stomping ground for the Great Elephant and part of the park that extends to the west, is marked only as ‘Parking’ in AHCNN’s drawings.

Preserving the covered slipway and the iron and wood shops would have continued to obstruct the view of the management offices (a stone structure from 1917) from the northern bank of the Loire. Today these offices have been restored and form a visual anchor in the Ile de Nantes panorama. Architect Patrick Mareschal expressed regret that he could not preserve any of the iron and wood shops designated under the AHCNN plan, but he explained, ‘the problem of conservation and immediate usage not being resolved, to maintain one of these hangars would have given Nantes the image of a city in decline.’32 This statement is significant for two reasons. First, it is perhaps the clearest (and in 1991, the earliest) expression of the purpose of the Ile de Nantes redevelopment: to create a new image of the city. The bulky metal shops would have obstructed the panorama of the Ile de Nantes when seen from across the Loire, but they also would have clouded the mental image that city officials were trying to generate. Second, Mareschal’s statement betrays the muddled logic of much urban redevelopment: the city threatens to demolish a structure unless a plan for its preservation can be found, numerous associational actors propose such plans, and finally the city demolishes the structure because the question has not yet been resolved and in the interim the structure has become unsightly or unsound.

The Naves were perfectly situated to become the focal point of the panorama that the other metal shops would have obscured. In their proposal for the Naves, La Machine artistic director François Delarozière and collaborator Pierre Orefice promised to transform them into a new public space for the city that in turn would manufacture additional public spaces: the easternmost of the three Naves would become a public pedestrian thoroughfare, while in the other two the members of La Machine would construct the massive mechanical attractions to be installed at different points around the Ile de Nantes.33 Each projected urban installation is designed to generate public space alongside various phases of the Ile de Nantes’ redevelopment. These urban installations take years to complete, and at the time of writing only two – the Great Elephant and the Marine Worlds Carousel – of a projected ten have been realized. In the meantime, the Naves themselves serve as both a base of operations and model public space for the rest of the project.

How do metal fabrication shops become intelligible as public space? The cultural appropriations discussed above, particularly the 1999 music festival, expanded symbolic ownership of the shipyards beyond former...
 workers to encompass ‘the people of Nantes.’ Such events encouraged residents and tourists to cross the Loire to explore the postindustrial landscape and prepared them for the more permanent appropriation of La Machine. But La Machine also relies on familiar spatial repertoires to encourage particular spatial practices.

La Machine and Nantes Métropole tap into the existing repertoires of parks, cafés, and covered shopping arcades to encourage the Naves’ use as public space. They do so both structurally, via changes to the built environment, and discursively, by comparing the Naves to other public spaces in the third public space of the press. Key landscaping and building choices invite visitors to pass through the Naves and to linger around them. The easternmost Nave is a covered thoroughfare open at both ends. Flora planted beneath this Nave establish sensory continuity between it and the immediately adjacent park, offering visual permission to enter. Immediately in front of the Naves, La Machine has installed a carousel (distinct from and much smaller than the Marine Worlds Carousel) designed by Delarozière. The carousel, a common element of many French parks, offers a familiar and approachable setting in which to encounter Delarozière’s mechanical, steampunk aesthetic. (A carousel was also part of the redevelopment plan proposed by AHCNN.) Delarozière and Orefice’s initial proposal also stressed the importance of establishing a café alongside each urban installation – not, they claim, to increase revenue, but to better integrate the Machines into the life of the island. The Naves, too, feature a café from which parents may easily watch their children ride on the carousel. Here La Machine draws on the familiar spatial repertoires of French café culture to make its project intelligible to locals as new public space.

Chemetoff heralded the Naves as a means of returning the island to the public: ‘No one ever came to the banks of the river. Today, the Naves […] have been handed over to the public.’ Chemetoff’s statement establishes an opposition between private workspace and public leisure space. When the site was part of the shipyards, ‘no one’ (i.e. only shipyard workers) came to the banks of the Loire. Now that non-industrial workers and others use the river, the site has been ‘handed over to the public.’ Though thousands of people regularly gathered to attend naval launches, the shipyards must be represented retroactively as closed in order to make their converted spaces seem all the more open. I argue that this is the urbanist’s perversion of earlier heritage preservation efforts in which workers offered up their history to all of Nantes. In the same interview Chemetoff also calls the Naves ‘this industrial Passage Pommeraye,’ comparing them to Nantes’ ornate nineteenth-century shopping arcade. Local press echoed Chemetoff’s metaphor;
just two weeks later journalist Stéphane Pajot called the Naves ‘a kind of extraordinary big brother to the Passage Pommeraye.’ This comparison draws a parallel between the impressive roof architectures and general shapes of the two structures. But, like Delarozière’s insistence on the importance of the café, it also situates the Naves within familiar French repertoires of public space.

If the space of the Naves is public, it remains regulated by implicit and explicit spatial rules. Anyone may stroll through the easternmost Nave, examine a description and photos of the project, and admire the Great Elephant. During off hours, the Elephant remains under the iron latticework of the Nave, cordoned off by a low, largely symbolic rail. Access to the interior of the Elephant and to the Machines Gallery requires two separate €7 tickets. To access either the Gallery or the Elephant boarding platform, visitors pass their tickets over scanners that then allow them to pass through turnstiles (see figure 4.4). It is impossible to see the inside of the Machines Gallery without purchasing a ticket, though during off hours I frequently saw two or three curious people peering through small gaps in the walls of the Gallery’s flexible architecture. The two western Naves housing La Machine’s workshops and office space are off limits to visitors. A locked door with keypad and intercom restricts

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**Figure 4.4** Visitors scan their tickets to gain entry to the Great Elephant’s boarding platform, Les Machines de l’île, Nantes, 2010.
Working memories

ground-level access to these areas, and a sign on the door asks passers-by to respect La Machine’s workspace. However, the €7 tickets granting access to the Elephant boarding platform also allow visitors to climb an additional set of stairs to the workshop observation post. From here, one may look down on the members of La Machine as they work on their latest projects (see figure 4.5). But this platform is quite small, and with many visitors angling for a view (most with eager children) there is unspoken pressure to have a peek and move on.

Critics of the project accuse Delarozière and Orefice of transforming the former shipyards into a theme park, a Jules Verne-themed Disneyland for consumption by tourists and of little interest to locals. Chemetoff and the press hardly assuaged these concerns by comparing the Naves to the Passage Pommeraye, as the function of the shopping arcade is primarily to encourage consumption and only secondarily to encourage social mixing. Beneath the Naves, too, we are free to look, but we pay to play. Delarozière routinely responds that theme parks are not integrated into their urban environment. They enclose their visitor-customers within a delimited space (usually far from the city centre), demanding that they maximize enjoyment and experience the most for their money between opening and closing times. By contrast,
the eventual projects of the Machines de l’île will be distributed throughout the Ile de Nantes, with separate ticket booths for each Machine. Delarozière and Orefice argue that this would allow local visitors to explore the island and the Machines at their leisure, returning for multiple visits, perhaps spaced months apart, without the pressure of ‘making the rounds’ in a single day. But Delarozière also rejects labels of theme parks or consumerist paradises because the Naves remain a space of manufacture, a space of production rather than (or more accurately, in addition to) consumption.

Artists at work

La Machine combats the image of the Naves as consumerist space by insisting on their continued role as a worksite. Promotional materials and media coverage of the project emphasize that the Naves are a workshop and the machines are works in progress. Delarozière has repeatedly attempted to distance Les Machines de l’île from the image of a Disney-style amusement park, saying in 2011, ‘We’re a construction site, one that manufactures the city, nothing to do with the fake, neat and tidy city of Disney [Main Street USA].’ He reiterated this in our 2012 interview: ‘It’s in our genes to work with the industrial past, the industrial present, and besides it’s a space of manufacture. It’s a construction site.’ Delarozière’s genetic imagery is apt, not because it reflects a real and natural lineage, but because, firstly, it indicates the importance to Les Machines de l’île of repertoires that make the new intelligible based on what has come before, and secondly, it demonstrates the political stakes of divergent theories of repertoire. The intelligibility of the Naves as public space depends on spatial repertoires, which are primarily acts of recognition rather than of embodied transmission from performer to performer. But Delarozière deploys his genetic imagery to imply a direct and natural act of transfer: laying claim to repertoire in the sense proposed by Diana Taylor, La Machine attempts to present itself as the inheritor of industrial savoir-faire passed down directly from the Nantes shipbuilding industry. When these attempts succeed, La Machine is able to justify its presence in the repurposed metal fabrication shops. When they fail, La Machine’s workshop is vilified in letters to the local paper as a force of gentrification and a tourist trap, and by extension Nantes’ cultural policy priorities are called into question. In the first half of this chapter I demonstrated the built, discursive, and embodied
reconfiguration of the Naves as public space. In what follows I turn to repertoires of work, and how these recombine with repertoires of public space to enable performance and reception of the creative city script.

Delarozière is not exaggerating when he says that his company collaborates with Nantes’ ‘industrial present’; the initial phase of the Machines de l’île, including construction of the Great Elephant and the opening of the Machines Gallery, provided contract work to a total of sixty-three businesses, from local laser cutting operations to multinational electronics conglomerate Siemens. Although La Machine’s permanent company members are skilled technicians and artisans, the sheer scale and complexity of their projects necessitate collaboration with outside experts. In an organizational model increasingly common across multiple economic sectors, temporary, peripheral contractors routinely supplement a permanent team. By providing contract work to local (and with Siemens, one multinational) businesses, La Machine assumes the redefined role of culture in the creative economy.

The scale has changed. It is no longer just a question of giving cultural vocations to industrial buildings. [...] It is no longer just a question of using culture as a communications or public relations tool. Henceforth, culture is also considered a productive force; it must create surplus value and jobs.

It is not an ephemeral event that generates surplus value and jobs, but La Machine’s ongoing production process: its continuous theatre. The primary product of this process is not a mechanical animal but a set of social relations, a highly interconnected web of artistic and industrial workers and public, private, and symbolic capital.

The hub of this network is the burgeoning creative quarter just to the east of the Naves. The scheme consists of five main components: media and communications, higher education and research, artists’ workshops and studios, creative small businesses, and housing. The area, centred around the former Alstom industrial hangars, now houses the headquarters of regional newspaper Ouest France and the regional headquarters of Radio France, Nantes’ prestigious Schools of Architecture and Fine Arts, and numerous architecture, graphic design, interior design, and digital media firms. The Blockhaus, the World War II-era bomb shelter for shipyard workers once occupied by architecture students, has undergone an architectural conversion to become La Fabrique, a centre of experimental music production and Nantes’ hippest concert venue. Proponents of the transition herald the creative quarter as crucial to Nantes’ long-term urban strategy: drawing on and nurturing the creativity of Nantes’ people, they argue, will position the city as a European...
hub for the fastest growing creative industries. If Nantes’ shipbuilding and port activities turned the city westward from the eighteenth to the twentieth centuries, across the Atlantic to foreign markets, the creative quarter promises to reorient Nantes to the east, to forge trans-urban links with cities throughout Europe. Once again, it seems Nantes is positioned to strategically divide labour between itself and Paris. Formerly, Paris was the centre of distribution throughout France, whereas Nantes was the centre of distribution throughout the world. Tomorrow, as proponents of the creative quarter would have it, Paris might be France’s global city, but Nantes will prove France’s European metropolis.

What is La Machine’s role in the creative quarter? Delarozière has confirmed that his company and the musicians of neighbouring La Fabrique will ‘necessarily’ find projects in common. But Delarozière also finds the creative quarter ‘weighed down by concepts.’ He points to his company’s longstanding collaboration with the School of Architecture and remarks that the quarter was creative long before it was branded as such. Delarozière acknowledges that he and his company will benefit from the media (and financial) attention paid to the creative quarter, but is quietly sceptical that an urbanist or city government can plan the cross-fertilization of artistic projects.

Physically, the Naves link the emerging creative quarter to the park that occupies much of the former shipyards, a park marked by the concrete and metal traces of shipbuilding activity. La Machine’s base of operations provides a visual and symbolic connection between Nantes’ heavy industrial past and its cultural industrial future. This was not always the case. I first visited the Naves in 2010, before construction and renovation began for most of the creative quarter. Approaching the Naves from the northern bank of the Loire, across the Anne de Bretagne bridge, they appeared visually grouped with the open park areas to the west. Boulevard Léon Bureau (the Anne de Bretagne bridge becomes Boulevard Léon Bureau once on the Ile de Nantes) divided the Naves from the emerging creative quarter, notably the former Alstom buildings. To cross the boulevard was not difficult, though I had to pay attention to the cars coming over the crest of the Anne de Bretagne bridge, frequently at high speeds. The side of the Naves facing Boulevard Léon Bureau and the future creative quarter resembled the rear of a greenhouse and not a hub of cultural and tourist activity.

Working in concert with the Naves’ physical orientation, initial publicity for the Machines de l’île project grouped the Naves exclusively with the rest of the former shipyards to the west. Additionally, though the Naves never belonged to Dubigeon – ACB retained them for non-naval use when it sold its other facilities to Dubigeon in 1969 – city officials,
the media, and many locals mistakenly labelled them as the Dubigeon Naves as early as the 1990s. The error persisted until 2007, when former shipyard and non-naval ACB workers successfully lobbied to have the Naves labelled the Loire Naves on official maps of the redevelopment site. One letter to the editor exemplifies the lobbyists’ concerns: ‘Despite the solicitations of our politicians to believe the contrary, Dubigeon was never installed [in the Naves]. To give an imprecise name to these naves is to hold in contempt the people who worked so hard there and is also to obscure a part of the history of working, industrious Nantes.’

I do not believe that city officials purposely misidentified the Naves as belonging to Dubigeon. But the effect of their honest mistake (and of its fifteen years of reiteration in the media) was to efface the shipyards’ long and complex history of competition, relocation, and mergers in favour of a simpler narrative. Labelling the early twentieth-century hangars as part of Dubigeon obscured the parcelization of the site and Dubigeon’s relatively recent installation on the Prairie-au-Duc in 1969. More importantly for my argument here, it also had the dual effect of attaching redevelopment efforts to Nantes’ maritime history’s most illustrious family, the Dubigeon clan, and of presenting the Naves’ repurposing as a balm for the wound left by Dubigeon’s closure. Dubigeon’s closure was the impetus for redevelopment, so the Machines de l’île – a project requiring millions of euros of public money – had to be somehow connected to the Dubigeon site. The Naves’ mislabelling helped build this bridge, but it simultaneously offended the former shipyard workers, who continued to benefit from significant symbolic clout.

Now that the Naves’ proper name has been restored, the structure is once again linked to the rest of the former ACL, across the street in the emerging creative quarter. The Naves and Delarozière feature prominently in de Gravelaine’s 2011 feature on the creative quarter. Gravelaine calls the Naves ‘a site that associates the industrial past of the Prairie-au-Duc and its new cultural vocation,’ but he also cites them as the earliest example of the ‘mise en culture’ (a phrase suggesting a purposeful turn to culture as well as a mise en scène) of the entire Ile de Nantes. The Naves’ discursive relocation from memorial park to creative quarter is an example of what Paul Ricoeur might call retroactive prefiguration. In an essay for Urbanisme, Ricoeur describes prefiguration as the introduction into daily life of new elements that are not yet identified as part of a larger project, but which lay the groundwork for inhabitants’ interactions with a project to come. These discrete novelties indicate that something is coming to pass. The Naves are certainly an example of such prefiguration, though I identify this prefiguration as retroactive due to their symbolic relocation to the creative quarter. This
Resurfacing is resurfacing in action: the Naves have served as the flagship structure for two of the redevelopment efforts’ major projects.

Boulevard Léon Bureau continues to sever the Naves from the rest of the creative quarter, but two new structures encourage physical and visual associations between the two sides of the street. Immediately across from the Naves, the city built France’s tallest metal parking structure to provide easier access to the Machines de l’île. Pedestrian crosswalks now facilitate movement to and from this structure, and by extension between the creative quarter and the memorial park. (Accessing the Naves via public transport is slightly more difficult; one may take Line 1 of the tram to the Chantiers Navals stop, but this tramline is on the northern bank of the Loire. Riders must alight from the train and then cross the Anne de Bretagne bridge on foot.) The stark contemporary structure of La Fabrique, attached to the easternmost Nave, lends visual weight to the Naves’ eastern half, and La Fabrique’s function physically joins the Naves to the high-tech innovation that the creative quarter is meant to facilitate. The repurposed Naves were always meant to bridge past and present, but they now also bridge past and future, memory and innovation.

If the Naves physically and discursively bridge the creative quarter to the east and the public memorial park to the west, the workers of La Machine are called upon to embody both the new creative economy and the past industrial one. La Machine company members are primarily carpenters, welders, mechanics, sculptors, electricians, and metalworkers. Several of them actually began their careers working in heavy industry, including at France’s only remaining active shipyard, the Chantiers de l’Atlantique in nearby Saint-Nazaire. Jean-Louis Jossic, formerly Nantes’ deputy mayor for culture and heritage, suggests, ‘To those who miss the universe of the shipyards, we can say that there is real continuity. Look at the Naves, the people who work wood and metal in the Workshop. […] We are in the same universe.’ Journalist Armelle de Valon remarks, ‘one could imagine [the workers of La Machine] as coming from the disappeared shipyards.’ Even before the Naves reopened, Ayrault claimed: ‘In the Naves, we will “fabricate” culture just as workers used to fabricate boats.’ In concert with the structural reconfiguration of the Naves, the official narrative of Nantes’ heritage preservation and redevelopment calls on La Machine to embody past industrial repertoires, to gesture continuity in the face of rupture.

Delarozière, Nantes’ cultural officers, and the media routinely cite the team’s artisanal savoir-faire as evidence of continuity between shipbuilding activities and the Machines de l’île. During construction of the Great Elephant, Delarozière and Orefice wrote that ‘the structure of
the elephant will take the form of part of a ship’s hull. We will use laser cutting, metal fabrication, welding etc. All this savoir-faire inherited from the shipyards to create a modern and inventive machine. The choice of the elephant had nothing to do with the industrial techniques required to produce it. Delarozière and the artisans of La Machine had already constructed an elephant for the Royal de Luxe production *La visite du sultan des Indes sur son éléphant à voyager dans le temps* (*Visit from the Sultan of the Indies on his Time-Travelling Elephant*, typically translated simply as *The Sultan’s Elephant*, 2005–06). The mechanical elephant used in the Royal de Luxe performance required twenty-two operators and was dismantled in 2006. The Nantes elephant is a modified replica that requires only one operator, the driver, and can carry more passengers. Still, the Great Elephant is primarily intelligible to Nantes residents as a souvenir of the Royal de Luxe performance. It also evokes Nantes native Jules Verne’s novel *The Steam House*, in which a giant mechanical elephant tows a full-size house across India, and it conjures a sanitized, exoticized version of the voyages of violent commerce and conquest that set out from Nantes in the eighteenth and nineteenth centuries. The employment of shipbuilding techniques in the construction of the elephant is merely happy coincidence, but one that Delarozière repeats frequently to justify the project as a commemoration of industrial heritage. In an interview with Thierry Guidet, he claims: ‘Metal fabrication, forging, the carpentry of the main skeleton … all this savoir-faire from the shipyards, we inherit it and we put it in service of a new industry, that of the imagination.’ In our 2012 interview, Delarozière explained:

There was a hull tracer who worked with us on the Great Elephant. We also solicited former naval metal fabricators who were capable of manipulating complex pieces thanks to their highly technical play with the blowtorch […] We solicit skills that these veterans have mastered incredibly well, and there you have it. There are a lot of people who worked at Saint-Nazaire, who did their training on boats, who come to work here; we’re partners with an adult workers’ training program, called the Chantier-Ecole, where Saint-Nazaire welders can fabricate pieces for our shows, it’s an exchange. We really exist in relation to the industrial world. The statute of our association [La Machine], it says that we’re here to evolve the techniques of the performing arts, of scenery, of scenography, notably by drawing on industrial savoir-faire.

Many of the industrial and artisanal techniques used beneath the Naves have indeed remained the same. But, as Delarozière rightly points out, the industry has changed, from heavy industry to the imagination (or
creative, or cultural) industry. The repertoires of La Machine’s workers – and, for those once employed in shipyards, the mere presence of their labouring bodies – establish continuity between past and present industries while subordinating the past industry to present concerns, namely the fabrication not just of mechanical animals but of a common urban imaginary. The work of La Machine fabricates its own conditions of possibility: the transition from heavy industry to culture industry, from class-based solidarity to place-based belonging, and (within Nantes’ redevelopment process) from industrial memory park to creative quarter.

Moving on

Even as the work of La Machine harks back to the work of the shipyards, it establishes its own kind of labour as superior to and more fulfilling than the backbreaking, soul-crushing toil of industries past. Press profiles of La Machine company members and contract workers read like a survey of post-Fordist management literature. Jörn, an iron and steelworker, used to have a metalworking shop in Ariège but needed a change. In La Machine’s workshop he discovered ‘an uncommon way of working’: ‘In the Workshop, we are all interdependent. We’re at once responsible for our work and that of others.’\(^{56}\) Pascaline, another metalworker for La Machine, agrees: ‘Here, you are responsible for your own construction project, and if you want, you can take on new responsibilities. Different trades come together, so much so that you can familiarize yourself with other areas. You learn every day by watching others.’\(^{57}\) Joiner Richard Triballier, who came to La Machine for a two-month training course and never left, cites an atmosphere of free exchange and creative consensus; ‘it would be difficult’ to leave and work elsewhere.\(^{58}\) Company members, contractors, and reporters alike cite teamwork, independence, and a sense of collective ownership – all hallmarks of the post-Fordist management ideal – as key to the functioning of the Naves as worksite.

Apart from the company’s collaborative but independent, project-based labour organization, La Machine company members and contract workers cite the production of a common imaginary as the primary reason for their emotional attachment to the job. Both Delarozière and Orefice define imagination and inspiration [faire rêver] as their primary products. Jérôme Thareau, formerly of the Chantiers de l’Atlantique
in Saint-Nazaire, explains, ‘We don’t come here to earn a salary but to inspire [fabriquer du rêve pour] people.’\textsuperscript{59} Contractor Olivier Baret writes that ‘the project permits all those who work on it to contribute to this part of the dream and to share our pride in our modern and noble professions.’\textsuperscript{60} The French formulations faire rêver (usually translated, as above, as ‘to inspire,’ but literally ‘to make dream’) and fabriquer du rêve (to fabricate dreams) prove particularly revealing. The common urban imaginary is La Machine's primary product, over and above any mechanical animals that happen to lumber out of the workshop.

I do not mean to imply that La Machine’s company members are delusional or lying; my goal here is not to lift the veil of ideology from downtrodden naïfs but to examine the theoretical underpinnings and political stakes of this widely accepted narrative of transition from Fordist industrial labour to post-Fordist affective labour and collective creativity. Press reports profiling the workers of La Machine link the company to the developing creative quarter in the east, even as separate news articles and statements from Nantes city officials use La Machine’s technical savoir-faire to link them to the former shipyards in the west. La Machine workers must perform in two industries at once, even as the rhetoric of one (the creative industry) opposes itself to the working conditions of the other (heavy industry). When journalist Philippe Gambert calls the workers of La Machine ‘dream creators in a former site of toil,’ he obscures both the difficult manual work necessary to create giant mechanical animals \textit{and} the solidarity, camaraderie, skill, and sense of collective ownership that characterized shipyard labour in Nantes.\textsuperscript{61} When he goes on to describe the 1987 closure of Dubigeon as ‘funereal,’ he establishes Les Machines de l’île as the shipyards’ disembodied, spiritual afterlife: manual, material labour apparently died in 1987, but its soul lives on in the immaterial and affective production – more play than work – of La Machine. Press coverage and promotional materials for Les Machines de l’île may tout La Machine’s labouring bodies as evidence of continuity between shipyard work and the creative quarter redevelopment efforts, but they also dissolve the materiality of that work and its products to promote a narrative of transition to affective labour.

Though the Nantes media have constructed a narrative of progression from difficult industrial labour to imaginative, stimulating, creative labour, shipyard labour more closely resembles the highly skilled, project-based work of La Machine than it does any Fordist assembly line. Although digital modelling technologies have enabled increased standardization of shipbuilding since Dubigeon closed in 1987, the work of the Nantes shipyards predated those developments and thus was always made-to-measure naval ‘couture.’\textsuperscript{62} In the Naves, as late as
the 1970s, metal fabricators (*chaudronniers*) and pipe-fitters (*tuyauters*) cut, bent, and shaped large pieces of metal to form sections of a ship’s hull, internal piping, and the artfully curved blades of propellers. This work, the transformation of metals, was distinct from the assembly work of the mechanic shops, and required highly skilled individual labourers working collaboratively with each other and with other stages of the naval construction process. Metal fabricators relied on the precise work of hull tracers, who would trace and cut full-scale models of a ship’s horizontal struts out of thin, light wood. Metal fabricators would then test their work against the curvature of these wooden models. This practice continued well into the twentieth century, until the advent of three-dimensional computer modelling. Metal fabricators, pipe-fitters, hull tracers, and riveters needed to understand the entirety of the construction process; thus, a young shipyard apprentice would rotate from team to team before settling on a trade.63 ‘In naval construction, the trades long retained an artisanal character and thus lent themselves poorly to modern [Fordist-Taylorist] methods for the organization of work.’64 Testimonies from former shipyard workers (which, admittedly, are likely to have grown rosy with time) emphasize skill, independence, teamwork, camaraderie, and creativity.65

Defenders of La Machine cite the particular materials and skills as a tribute to shipyard labour, but somehow the artisanal organization of work within La Machine becomes associated not with the shipyards but with the new creative quarter. The designation of the new economy as a ‘creative’ one is itself problematic. Guidet cautions, ‘How can we fail to see the risk of co-option (at least verbally) of “creativity”? As if the industrialists and the workers of the shipyards had not proven their creativity before those who took their place?66 Just as the shipyards must be represented as closed and private in order to sell the converted Naves as open and public, so shipyard and industrial labour must be represented as oppressive to better portray La Machine’s work as collaborative and emancipatory. This narrative emphasizes the (very real) hardships of industrial labour but obscures the artisanal, collaborative, creative reality of shipyard workers’ experiences. Shipyard labour, in this narrative, becomes indistinguishable from other forms of industrial labour in which Fordist-Taylorist rationalization minimized workers’ creative input.

Both the shipyards and La Machine’s workshop produce 1) enormous metal and wood vessels using many of the same tools and techniques, and 2) collaborative, skilled, independent, project-based labour relations. Yet, to demonstrate continuity between industrial and artistic labour beneath the Naves, the media cite only the phenomenological
similarities between the ships and the mechanical animals and the similar techniques used to produce them. The collaborative nature of shipyard labour is obscured, while the collaborative nature of La Machine’s labour is touted as a radically new improvement on industrial work. Delarozière and Orefice cite similar techniques and materials in order to claim that Les Machines de l’île commemorates industrial heritage. Were they to cite continuity in labour organization, they would disrupt Nantes’ narrative of progress and highlight the precarious nature of artistic work in the creative economy. In the shipyards, financial precarity, combined with the highly skilled nature of the work, led to high levels of working-class solidarity and intense union activism from the 1930s to the 1980s. Today, as Luc Boltanski and Eve Chiapello have painstakingly documented in *The New Spirit of Capitalism*, precarity is called ‘flexibility’ and ‘freedom.’ Contemporary capitalism has addressed what Boltanski and Chiapello call the ‘aesthetic critique’ – focused on feelings of alienation – in order to better disregard the ‘social critique’ – focused on exploitation.67 Les Machines de l’île as a project must commemorate the heritage of industry without commemorating the heritage of industrial working-class activism.

When the artisanal nature of shipyard labour is, intentionally or otherwise, effaced, La Machine and the creative quarter come to represent an emerging democratization of creativity. Whereas industrial workers of an invented past supposedly had zero creative input in the production process (a myth debunked by even a cursory survey of shipyard labour), the workers of La Machine and the creative quarter are free to contribute their own ideas and take ownership of projects. In addition, by presenting La Machine’s collaborative, skilled, interdependent-yet-autonomous labour as something radically new, the media and the municipal government bring La Machine in line with the rhetoric of openness that characterizes Chemetoff’s *Plan-Guide* and the entire Ile de Nantes project. The Ile de Nantes is supposedly open source: the flagship project for a rising European metropolis open onto the world; home to a rhizomatic, networked creative cluster and a workshop that produces imagination itself; planned not in accordance with a single, unified vision but with a flexible, regularly updated ‘road map’ consisting of smaller, independently contracted construction projects. Contemporary urbanism, much like contemporary capitalism, has responded to aesthetic critiques of alienation, only to worsen social problems of exploitation. The flexible city is a precarious one.

The democratization of creativity supposedly extends to those who visit the Machines Gallery. In promotional materials and interviews, Delarozière and Orefice insist that these visitors actively participate in
the creative process, hence their designation as ‘testers.’ The production process is both removed spectacle and participatory performance. ‘The Workshop, visible from the Elephant’s boarding platform, offers the public the spectacle of the Machines’ construction and mechanical tests. The Gallery will operate in sync with the creations of the Workshop, which each visitor will be able to test.’ Delarozière and Orefice cite the workshop and gallery as interconnected elements in an ongoing process of construction, testing, and innovation. ‘The Gallery is above all a laboratory in which to exhibit the fabrication process of the Machines Workshop: models, tools, unfinished objects. Visitors will be actors in this process. They will be able to test the machines for themselves and attend La Machine’s rehearsals in front of the Naves.’ The press, too, emphasizes the project’s participatory aspect: ‘Spectators will be actors. They will be able to climb aboard the machines and guide their movements.’ Political theatre has long attempted to activate its spectators to engage them in critical thinking and activism against the status quo. Here, however, activation has become a publicity slogan to solicit residents’ approval of an official urban project.

What manner of participation is available to Les Machines’ visitors? The ‘testing’ that occurs in the Machines Gallery is not that of the skilled test pilot, but that of the repetitive stress test. Delarozière and his colleagues joke that their creations must be able to ‘survive’ the Machines Gallery: they must withstand the repeated and sustained stress of a stream of visitors, all eager to turn cranks, flip levers, and press foot pedals with vigour. It is not one visitor who tests the machine, but the steady stream of visitors; the role of the individual visitor is to act as one small step in a large-scale act of quality control. The individual mechanical marine creatures that eventually became part of the larger Marine Worlds Carousel were not transferred from workshop to gallery until they could safely entertain the crowds. Adjustments made to the machines before their final installation in the carousel resulted from machinists and constructors’ observations and not from visitor feedback.

Spatially, too, visitors’ participation remains distinct from the construction process. The western and central Naves house the metal and woodworking shops, respectively, while the Machines Gallery is housed in a flexible, temporary structure beneath the eastern Nave. The rest of the eastern Nave comprises a covered public thoroughfare that allows pedestrians to pass from north to south (even when Les Machines is closed) but that further reinforces the spatial division of constructors’ and visitors’ labour. As part of the paid visit to the Machines Gallery, visitors may cross the public thoroughfare, use their tickets to pass
through a turnstile, and climb stairs to a narrow gangway overlooking the shops where the workers of La Machine are constructing their next projects. This part of the process is indeed on display, if from a limited perspective (and I would certainly not advocate children’s unfettered access to table saws and belt sanders). In the Machines Gallery itself, the machines are accompanied by recreations of Delarozière’s initial sketches, scale renderings and models of entire projects both complete (the Great Elephant, the Marine Worlds Carousel) and incomplete (the Heron Tree), and representations of some of the techniques used to construct the machines, notably the contour mould used in the creation of the Great Elephant’s wooden skin. Ultimately, however, these additions generate the effect of a sneak behind-the-scenes preview, a backstage pass for interested (and paying) consumers, or even a museum display, rather than that of meaningful co-production.

Finally, the machinists guiding visitors through the Machines Gallery are not La Machine company members. La Machine is a street theatre company that constructs its theatrical machinery in the metal and woodworking shops beneath the Naves. The ‘machinists’ who greet visitors and encourage them to ‘test out’ La Machine’s creations in the Machines Gallery are public employees, professional tour guides hired by the city of Nantes. These tour guides are co-workers not of La Machine, but of other publicly employed guides at Nantes’ Museum of History, across the Loire in the Castle of the Dukes of Brittany. The employment structure of the Machines de l’Île project continues to separate between the affective labour of greeting and guiding and the manual labour of carving and welding.

The creators of Les Machines ascribe to visitors a greater role in the creative process by emphasizing the importance of appropriation, narrative, and imagination. ‘All the great industrial undertakings started with a dream. Here industry is put in the service of dreams. Climbing into the machines, visitors, be they big or small, invent their own voyages.’73 One of the theatrical aspects of Les Machines, the ability of visitors to experience an ‘as if,’ is crucial to Delarozière and Orefice’s claims that visitors participate in the production process.

When I first visited the Machines Gallery in August 2010 it still held the mechanical sea creatures that are now part of the Marine Worlds Carousel. One of the machinists gathered my fellow visitors and me for a demonstration of the Queen’s Carriage, a wooden conch shell ‘carried’ by a fleet of flying fish (see figures 4.6 and 4.7). The machinist asked for a female volunteer aged 16 or older to play the Queen and for two well-behaved boys to act as footmen (see figure 4.8). Once in position, these three volunteers turned various cranks, levers, and
Figure 4.6 The Queen’s Carriage in the Machines Gallery prior to demonstration, Les Machines de l’île, Nantes, 2010. The conch-shell carriage is now part of the completed Marine Worlds Carousel.

Figure 4.7 An employee of Les Machines de l’île gathers a crowd for a demonstration of the Queen’s Carriage, Nantes, 2010.

Figure 4.8 A young woman prepares to play the part of the Queen in a demonstration of the Queen’s Carriage, Nantes, 2010.
wheels to move the carriage up and down and to flap the wings of the flying fish. The young woman playing the Queen drew particular praise for her stately royal wave. An actor inhabiting a role, the young woman was both herself and someone else. She acted in a brief theatrical event by imagining herself the Queen of the Conch Shell and waving to onlookers from her chariot as it passed below the waves. We onlookers, participants and spectators and attendants, suspended our disbelief and waved back. We waved both to the real young woman and to the imagined Queen.

The roles were not always so clearly defined. When testers climbed into the Lantern Fish, they had not been asked to play the Queen and her footmen or any other particular parts; they might have imagined themselves part of a living sea creature, pilots of a steampunk submersible, momentary performance artists, or something else entirely. But the creators of Les Machines – and the project’s supporters in Nantes’ government and the press – tout such imaginative interactions as part of the construction process. The machines are only complete when in motion, and this motion emerges from both the gestural and imaginative engagement of the visitor. Visitors to Les Machines thus participate in the production process insofar as 1) the machines are only complete when in motion and rely on the gestures of visitors to achieve such motion, and 2) the machines must be animated not only by their riders’ gestures but also by their riders’ imaginative capacities.

Visitors’ bodily and imaginative engagement with the machines supposedly transforms them from passive spectators to actors. But to what end? Visitors to Les Machines de l’île do not participate in the creative process any more than they would at another, more traditional theatrical event: in the Machines Gallery visitors may turn cranks and levers, but the physical activity of button-pushing hardly amounts to creative input. And the imaginative capacities of the spectators engaged in the testing of the machines are not fundamentally different from the ability of spectators at a play to temporarily embrace fictional conceits. Claims of activation and participation at the Machines de l’île serve a purpose akin to the discursive ‘reopening’ of the Naves discussed above. The discourse surrounding the Ile de Nantes redevelopment and the Machines de l’île represents the former shipyards as a private affair in which the public could not participate: even if thousands of Nantes residents gathered to witness ship launches, they were passively watching the launch of a (mostly) completed object from the other side of the Loire. By contrast, visitors to Les Machines de l’île cross the Loire, enter the Naves, and ‘test’ the machines prior to their ‘launch.’ Visitors’ participation in the production process is illusory but is a necessary discursive move that
sustains a narrative of transition from industrial labour to participatory, creative, affective labour.

If the Machines de l’île project claims to democratize creativity by actively engaging visitors’ imaginative faculties, it does so to engage Nantes residents and foreign tourists in the ongoing reimagining of the Ile de Nantes. La Machine has inscribed its project in two temporal registers: ephemeral events and the longue durée of urban redevelopment. Every spring, autumn, and winter the Naves host a series of concerts, performances, and art installations, each of which features both paid-for and free entry events. The completion of each Machine (the Great Elephant, the Marine Worlds Carousel) is also the occasion for an inaugural celebration. All of these events attract both local and non-local visitors. For outside tourists, the event format offers an easily digestible timeline for a visit to Nantes. For locals, delimited events instil confidence in the long-term vision of a project with no end in sight.

In an interview I pressed Orefice for details about the endgame of Les Machines. None exists. Only the continued success of one stage triggers approval of and funding for the next. In this case, the city measures success in numbers of paying visitors. The Great Elephant attracted just over 200,000 visitors in 2007, its first year, a number that steadily increased and in 2010 topped 300,000 (roughly equivalent to the current population of Nantes). Because Les Machines requests the postal code of every paying visitor, Orefice could also tell me that, whereas in its first year of operation the Great Elephant’s riders were 80 per cent local and 20 per cent non-local (a category encompassing foreign visitors and French visitors from outside the Loire-Atlantique department), by 2010 the figure was the inverse: just 20 per cent of the Elephant’s riders hailed from Loire-Atlantique, while 80 per cent were non-local. Combined with increasing ticket sales, this statistic spurred approval of Les Machines’ next two projects, the Marine Worlds Carousel and the Heron Tree. As the Great Elephant attracts more non-locals than locals, the next two projects will (temporarily) return Les Machines and the Ile de Nantes project to the local eye.74 La Machine has integrated its work into that of Nantes’ urban redevelopment, a decades-long process that is difficult to cleanly delimit as an event. Delarozière even calls the Machines de l’île ‘machines de ville’ (city machines).75 Les Machines de l’île is not (just) a cultural event that instils confidence in a larger project; it is (also, simultaneously) a cultural project woven into urban redevelopment.

The members of La Machine are beneficiaries of, as well as actors in, Nantes’ urban redevelopment, both via the (structural, discursive, and embodied) generation of public space and the (structural, discursive,
and embodied) perpetuation of the creative economy. The role of culture is no longer just public communication, but also the generation of jobs and surplus value. The work of La Machine retains a promotional function, but this is both the marketing of place and the marketing of their own kind of labour.

The labour of La Machine is the affective labour of the creative economy, the manual labour of the industrial economy, and the labour of establishing continuity between the two. The site of the shipyards is the site of a critical contradiction: the bodily labour of the theatre workers at their machines preserves the repertoires of the absent shipyard workers, but what they produce is an urban project that promotes the memory of industry’s success while encouraging the effacement of the industry’s collapse. This is the resurfacing alluded to in this chapter’s title. When road workers resurface a motorway, they do not replace all of its strata. Their milling machine scrapes away only the topmost layer of asphalt. The Ile de Nantes redevelopment is built on the base layer of generic naval heritage, but the project calls on La Machine workers to mill away the more recent, tumultuous past. As de Gravelaine writes, ‘more and more the island exists to erase its former abandoned state from memory. As if Place François II had always been so welcoming and the quays free of squatters.’ Working memory lasts only so long. In order for Nantes‘ redevelopment to function, the workers of La Machine must at once embody and efface the city’s naval industrial past. This central paradox emerges wherever a city converts former heavy industrial space to culture industrial uses: the creative city script demands that its performers be industrial workers and replace industrial workers – keep them present while consigning them to history.

Delarozière, Orefice, and their supporters routinely cite the importance of childlike wonder to the Machines de l’île project. They stress that, rather than merely supervising their children during a trip to an amusement park, parents experience the same emotions as their children during a visit to the Machines. The connection between parent and child is a generational act of transfer that speaks to patrimoine’s original meaning: patrimony, inheritance, that which is passed down from father to son according to patrilineal law in order to reproduce the status quo. Multiple acts of inheritance collide at Les Machines de l’île: one, the industrial techniques and savoir-faire adopted for use in the creative economy, which Delarozière says are ‘in [their] genes’; two, an intangible feeling of amazement passed from parent to child. But Delarozière insists that at Les Machines de l’île parents and children experience their wonder simultaneously. The act of inheritance is flattened so that generational transmission becomes generational coexistence.
Such historical flattening also characterizes La Machine’s industrial inheritance. Despite the company’s rhetoric, the skills they use to construct their machines were not directly ‘passed down’ from the Nantes shipyards. There is no clear act of transfer in this repertoire. What La Machine presents as inheritance is in fact simple contract work. This goes for their work with local businesses as well as for their short-term contracts with individual workers from Saint-Nazaire. The compressed, ahistorical act of inheritance is, in effect if not intent, a strategic political move that smooths over the traumatic ruptures in Nantes’ industrial history and justifies a creative economy founded on total innovation. Paradoxically, La Machine’s recycling effaces the past in commemorating it; the company’s acts of inheritance only erase history in favour of simultaneity. The very walls of the repurposed Naves exhibit such historical flattening. Just outside the Machines Gallery one finds displayed a collection of massive images: photographs of shipyard labour, photographs of the Machines and their construction, and reproductions of sketches by Delarozière and Leonardo da Vinci, arranged in no apparent order.

Chemetoff has called the Naves a ‘field of possibilities.’ The physical and discursive reconfigurations of the Naves establish the realm of possibility for embodied spatial practices. Performers – be they La Machine company members, contract workers, local residents, or foreign tourists – enact the creative city script on the public stage. The work repertoires of La Machine (in which visitors, too, participate) generate and justify the shifting spatial repertoires of the converted Naves and contribute to the resurfacing of the Ile de Nantes. The Naves, as a fusion of public space and workspace, are at once stage and scene shop of Nantes’ redevelopment.

Notes
3 Of these productions, Les Mécaniques savantes (The Savant Mechanicals) is the most famous. Performed in Liverpool, United Kingdom in 2008 and Yokohama, Japan in 2009, the performance features two 50-foot-tall mechanical spiders that, operated by La Machine company members, emerge from water, walk the streets, and even climb tall buildings. The performance’s only narrative is that created by the spectator.

François Delarozière, interview with the author. Collaborator Pierre Orefice refers to the site as a ‘permanent laboratory.’ See Frédéric Brenon, ‘Les Machines passent au vert,’ *Presse Océan*, 10 February 2012.


Devisme, *Centralité émergente: la fonction miroir de l’Île de Nantes*.


Frédérique de Gravelaine, *A Nantes, la mutation d’une île* (La Mothe-Achard: Place Publique/SAMOA, 2009), 6. I do not believe that the distinct neighbourhoods of the Île de Nantes have wildly divergent customs, but this is the word used by de Gravelaine.


Ibid.


Valérie Forgeront, ‘Le samedi des gars de la navale: le symbole d’une ville


26 In the final scene, after Othello murders Desdemona and realizes the full, horrific consequences of his jealousy, the theatre company’s production staff would open the building’s roof to reveal the starry night sky. Director Hervé Tougeron stated that he wanted the heavens to gaze down upon Othello in judgement. See François Gauducheau, Sur l’autre rive: des chantiers navals à Othello (Paris: F. Productions, 1990), videocassette (VHS), 40 min.


29 ‘Rumeur de démolition,’ Presse Océan, 9 November 1990.

30 The obvious exception to the ‘small family business’ model is Nantes’ first modern shipyard, funded by Louis XIV’s finance minister Colbert.


34 Ibid.


36 Ibid.


40 Quoted in Frédérique de Gravelaine, La création prend ses quartiers (La Mothe-Achard: Place Publique/SAMOA, 2011), 69–70.

41 François Delarozière, interview with the author, 2012.
43 Guidet, ‘Des Allumées au Quartier de la Création,’ 8.
44 François Delarozière, interview with the author, 2012.
46 de Gravelaine, La création prend ses quartiers, 78, 12.
50 Ibid., 26.
53 In Chapter 2, I discussed, following Kristin Ross, how techniques and discourses of colonial administration were redeployed in rural France amidst the dismantling of French empire. I call this the scenario of development. In this chapter we see the redeployment of what Diana Taylor would call the scenario of discovery: visitors to the Machines de l’île (even local Nantais, provided they hail from north of the Loire) are invited to explore the mysterious island from atop an exotic mechanical elephant. The view from the elephant’s back is a confident one. See Kristin Ross, Fast Cars, Clean Bodies; and Diana Taylor, The Archive and the Repertoire.
55 François Delarozière, interview with the author, 2012.
57 Ibid.
60 Pajot, ‘Carroussel: le métal avant le bois,’ 10.


66 Guidet, ‘Des Allumées au Quartier de la Création,’ 9. Along similar lines, Richard Florida’s concept of a single ‘creative class’ has drawn intense criticism in France for its thoroughly undemocratic and economically simplistic ascription of creativity to well-educated engineers, artists, designers, intellectuals, and – of course – the executives who profit from them. Florida counters that all people are creative, but that those who harness that creativity drive our current economy. However, this response does not solve Florida’s problem, as it 1) merely echoes the staunchest supporters of neoliberalism in blaming the economically disenfranchised for their own precarity, and 2) blithely ignores the vast politico-financial disparity among various members of the so-called creative class. See Shannon Jackson, *Social Works*; and Levin and Solga, ‘Building Utopia.’


69 Ibid.

70 de Valon, ‘Machines de l’île, acte 1,’ 23.

71 François Delarozière, interview with the author, 2012.

72 Visitors offer feedback in the form of blog posts, online photo albums, and online reviews, but the audiences for this feedback are other potential visitors and not the constructors themselves.


74 Pierre Orefice, interview with the author, 9 January 2012.

75 François Delarozière, interview with the author, 2012.

76 Frédérique de Gravelaine, *Le temps du projet* (La Mothe-Achard: Place Publique/SAMOA, 2010), 11.

77 François Delarozière, interview with the author, 2012.