## On the Dynamic Properties of Waves in Periodic Systems

From the S-Bahn, through shuttling latticework of tree branch and bridge truss, you glimpse it just below Tiergarten as you travel east-to-west, or west-to-east: a five-storey blue hulk. The building levitates unnaturally above the ground, jacked up on two giant, tubular pink ducts that protrude and curl downward from its sides then join together at its base, as though it were a crab reared up in fear, or anger, or some kind of mating ritual. What is it? It's the *Versuchsanstalt für Wasserbau und Schiffbau*, Research Institute for Hydraulic Engineering and Shipbuilding, outpost that Technische Universität Berlin has maintained, through a royal lease that's somehow weathered wars, land-value hikes and all the rest, on this small, elongated island around which the Landwehr Canal bifurcates into sluiced sections before merging back into a single flow out of whose grain all knots, spirals and other traces of past interruption or obstruction have been smoothed.

Or, scanned at a res higher than most S-Bahn riders have at their disposal: it's a complex of buildings, slotted into one another. The eye-catching, crustacean one's the *Umlauf- und Kavitationstank UT2*, its looping claw a conduit capable of pumping 3,300 tonnes of water round and round at nine metres per second – perfect for wake field and cavitation research, forced motion and propulsion tests and like manner of fluid-dynamic enquiry. There, amidst the roar of a two-megawatt ship diesel engine and vibrations of the vast pump's switch blades that shake wall and floor's sheet panels, dramas of rarefaction and compression, cyclic stress and

supercavitation play themselves out on demand, putting model hulls, rudders and propellers through their paces, coaxing from these inception numbers and erosion-progress rates. Below this towering monster, strewn about its feet like strips of food or half-spawned offspring, lie a series of long, flat hangars. It's in one of these, the one housing the *Seegangsbecken*, the Seakeeping Basin or wave generator – intermittently replenished, like the UT2, by the same liquid mass diverted from and, eventually, released back into the Landwehr and thence onwards to the Spree – that today's action is taking place.

Here, Neptune's wrath is about to be unleashed on a platform supply vessel, an anchor handling tug and two oil rigs. Resident technician Arda Gökçek, Dipl.-Ing., VWS's Keeper of the Sea, stands at the basin's absorption end, moving his thumb and fingers round a MacBook's glide-pad, scaling metrics, modifying ratios, adjusting up or down wave height and stroke length, characteristic and gravitational velocities. When the profile on his screen, the rhythm of its curves and intervals, aligns with that of today's target values, Gökçek's hand breaks contact with the laptop, hovers an inch or two above its keyboard while his eyes cross-check the graphic contours one last time, then falls decisively back down on the space bar. More than a hundred metres away, at the basin's far end, the wave-generation mechanism groans; drive arms, pulleys and linkage arms, drive pegs, flange bearings and connecting rods stir, clasp and thrust, shunting a slanted flap repeatedly against the water's bulk. And then it comes, down the long, narrow stretch, peak doubling the ceiling's intermittent strip lights one after the other, raising each inverted, spectral light-line up towards its source before the trough swallows the reflection once more in its darkened vortex: the first wave. It's followed by another, and another, and another, soaking the green tiles along the basin's sides, redrawing the same high-water mark over and over with complete precision.

Do the boats and platforms sense them coming? Of course not; all propagation vectors of the medium they sit in have been plotted here, phase boundaries and resonant frequencies rendered transparent; there's no wiggle room for ambiguity, and even less for fantasy – yet Gökçek still, each time he watches replica cities, dams or cruise ships, harbour walls or wind farms in the propagation section in the last, contracting moments just before the first wave hits, fancies that he senses, in the models' very composition, the clinging together of their atoms, an increased level of concentrated stasis; a *tensing* almost, as though they were bracing themselves; as though, somehow, they *knew*...

Now the waves are among them, tossing and convulsing them, sending them veering – laterally and vertically, longitudinally, transversally and every which way in-between – down paths that seem quite random but in fact are not at all, that's the whole point: cameras at the basin's sides are tracking and translating every heave and surge and sway, identifying, within the furious tangle of the lines, some kind of pattern to be viewed both retro- and prospectively, its fuzz transmuted into clean parameters that, once modelled, can be not only scaled back up for the benefit of future offshore installation planners but also, traversing their own vectors of circulation and displacement, transferred and extrapolated and fed into who-knows-what. Over the next sixteen months. today's worked-through data will be brought to bear on fields as variant as infrasonics and seismocardiography, the study of germ convection around airline cabins and the spread of rumour over social networks. Things are connected to other things, which are connected to other things. Yesterday, one hundred and three Asian miners died in a methane explosion; a small South American state underwent a coup; a large pod of whales beached itself off Western Europe's coastline. The pages of Gökçek's newspaper, lying open on a stool beside a half-drunk coffee cup, rustle as he climbs a nearby stepladder, borne upwards in his slipstream. From on high, the technician watches the boats lurching and bobbing drunkenly amidst the swells and currents, hurtling past the battered reefs of the oil platforms' legs and anchors. The elevation calms him; he's above the struggle, uninvolved. Visions of the Bosporus drift across his mind's back reaches, morphing through various formations – less a place glimpsed from car windows and mosque terraces on holidays, extended family visits, than a vague ancestral memory, an idea ...

The wave-generation mechanism groans; the flap shunts on to the same rhythm. The pillow-block journal bearings holding the driveshaft in place need lubricating: Gökçek can tell that from the note of irritation in its tone. On the smooth stretches of the basin's water, before the models break its surface, there's an outer coat of oil and dirt, a no man's land littered by corpses of the insects lured there by the mirrored swathes of airspace and bright rafters, the false promise of companionship. The anchor-handling tug, its prow of hardened paraffin, has got itself wedged in one of the oil rigs' leg struts. Computer modelling won't show you everything. Sometimes you have to actually do it, make a little world, get down amidst dumb objects and their messiness. From the basin's exterior, where it rests on J-hooks beside coils of hosing, wiring, torn canvas and string, Gökçek lifts a pike pole and leans in over the edge, trying to prise the vessel free. His right foot, raised behind him for stability, nudges the stool; coffee slops out, blotting the news pages. On a worktable beside the stool are an isopropanol spray can, a CD-ROM, a roll of toilet paper, an ice-lolly stick, a crumpled plastic glove of the type used for washing up, weights, floats, a fire extinguisher, an off-cut block of wood, a fold-out ruler, a hand-held torch, a tote bag, an external hard drive, a red marker pen, a plastic cup with small screws in it, a blue case of cross-point screwdrivers, a grease tin and a scrunched-up piece of tissue paper stained with a red substance. Further back, against the wall, models superfluous to today's scenario are stacked: a submarine, an ICE train, fifteen wind turbines, a life-sized emperor penguin and the city of Mumbai. In front of them stands a new prop, delivered to the Institute an hour ago from London in an outsize box, the unpacking of which has strewn about the floor styrofoam plugs and wedges that, being moulded to fit tightly round the model while it was in transit, now inversely (and disjointedly) repeat the outline of their precious cargo, also styrofoam: a spaceship with distributed, partitioned fuselage- and wing-configuration and a kind of half-detached, golf-ball-like annexe teed up just above its highest section. Gökçek's pike pole, finding its sweet spot on the tug's hull, prods it loose. The tug capsizes momentarily, spins on its side through a full clockwise circle and a third of an anticlockwise one, then, righting itself, glides round the leg struts to find open water. The flap shunts; the wave-generation mechanism groans. Gökçek returns the pike pole to its J-hooks and moves off in search of engine oil.

Alone among the props, the emperor penguin is not only replicated at a scale of one-to-one, but also (since the effect of turbidity on shallow-substratum colour was a subject of enquiry in the session in which it recently starred) painted black, yellow and white in the appropriate places. It's been cast in 'porpoising' mode: wings folded into torso, head held up in alignment with the body's central axis, feet wedged together and pointed down vertically to form a rudder. The meticulous streamlining has been undone, though, by its positioning: to stop its out-of-water bulk rolling across the floor, its neck has been rested across the roof of a train carriage, which (since the carriage has been cast at 1:22.5) not only makes the bird seem monstrous, gargantuan, but also angles it unnaturally, un-aerodynamically upward. Made to focus on the building's ceiling, its painted eyes seek out the skylight. Beyond this, the outside air is brisk, flushed by light breeze. Higher, much further up, two intersecting vapour trails have carved a cross against the blue - a vote cast on a ballot slip, the signature of an illiterate, an X marking the spot: Here.

## Book One

## 1. Markie's Crime (Replay)

In the third of four school buses edging their way up Camberwell New Road sits Markie Phocan. The buses process in formation, a cortège. Taxis, vans, double-deckers, dustbin lorries and the odd rag-and-bone cart alternately hem them in and, turning, parking or reversing, create pockets for them to slip, if not through, at least into, claiming a few yards before they run up against hard fabric of immobile bumpers and exhaust pipes. Winter sunlight falls across the scene; if they'd been new, or clean, it would have made the buses glint, but since they're neither, it just coats them in a dust and diesel aura. Across the side of one someone has finger-scrawled the word *Fuck*; beneath this, somebody (the same person perhaps) has written *Thatcher*; but this name has since been scored through, substituted by *GLC Commies* – which, in turn, has been struck out and replaced with *You*.

Markie's sitting in the fourth row, by the window (driver side). Next to him, Nainesh Patel is thumbing through a set of football cards, picking out swaps. On the aisle's far side Polly Gould's tipping her head back, tapping space dust onto an extended tongue. Trevor Scotter leans in from behind her and, sliding his hand horizontally across the plumb-line between packet and mouth, interrupts the flow for long enough to grab some of the powder in his upturned palm. Polly spins round, but by the time she's facing him her outrage has already lost momentum. What's she going to do? They're not allowed sweets. Trevor throws his palm up to his own mouth, gloating at her. Then, swinging his eyes sideways, he brings both his and Polly's gaze to rest on Vicky Staple's head,

above whose curly hair he rubs his hands, releasing a fine sugar and E-number fallout. He and Polly laugh.

'She got pink dandruff ...'

Vicky, staring at the seat in front of her from behind thick NHS glasses, says nothing. Paper planes and spitwads soar through the loud air. In the door-side front seat Miss Sedge sits impassive, shoulders sagging. No one's getting injured. They're crawling round the Oval now. Markie can see, over the wall, the scoreboard and the top rows of the upper stands; then, further round the ground's perimeter, rising above it, the gas holders. The tallest one is about two thirds full today, its green dome's convex meniscus giving over to a skeleton of interlocking diamonds. Vauxhall Gardens' hot-air balloon floats, tethered, to the gas holders' north, ropes on its underside converging on a flimsylooking basket. Lowering his back and craning his head as the bus traces Harleyford Street's curve, Markie tracks the balloon across the windscreen until it slides from view beyond the upper border. The aluminium of the vehicle's carapace behind which it disappears is thin and translucent; the sun, head-on to them now, shines through it to illuminate the letters SCHOOL BUS stamped across it, broadcasting them to passengers in reversed form: SUB LOOHCS. Below this the same letters, smaller and similarly reversed, though this time through reflection of the front shell of the bus hugging their tail, run across the driver's rear-view mirror: SUB LOOHCS. To Markie, these are real words, drawn from a hybrid language whose vocabulary and grammar he can just about intuit; doubled, they present a header and subtitle, repeating a single cryptic instruction: sub loohcs - look below ...

Now the last two buses have got stranded in the middle of the Vauxhall Cross box junction, blue-and-white insects caught in a yellow web, old chassis shuddering while cars honk and weave around them. The driver of Markie's, unconcerned, leans on his outsize wheel and picks his teeth, ignoring other motorists' shouts and V-signs. As Nainesh murmurs 'Heighway ... Shilton ... Coppell ...', the lights release them. Markie wonders if the two events,

the intoning of footballers' names and the release of buses, are connected; whether Nainesh has just *caused* the captive spell to break. To a last, long horn-blast, whose tone falls off as they pull away, they speed on to Vauxhall Bridge. Beside it, on the south side, a giant lot sits cleared, sticks and surveyors' string dotted and threaded flimsily about it. Nainesh looks up from his spread and, pointing at the empty space, announces: 'Going to be a secret headquarters for spies.'

'How do you know?' asks Trevor.

'My dad told me.'

'If it's secret, then how does he know?'

'He knows,' mutters Nainesh, burying himself back in the cards. Polly tilts her head back and taps out another load. In the seat in front of her Bea Folco, headband knotted at right temple, stares out of her window. There's no rear-view mirror, nor any other reflective surface, showing Bea to him and vice versa, but Markie senses nonetheless a symmetry - both of them turned or folded outwards from the bridge's cambered spine, he facing east, she west - somehow connecting them. On his side, on the water, tugs from Lambeth River Fire Station are testing their canons. The water jets start at their bases bold and firm, then jag towards their apex, morph into a set of liquid hooks from which hangs a mist-curtain inlaid with small rainbows. Is this salute for them? For Lyndhurst Primary's four-bus procession? Markie, even at ten, understands that it's not, that the world goes on doing what it does when he's tucked away in classrooms; that this snatched peek at its weekday workings is a special and uncommon thing - almost illicit, as though he were spying on it: embedded in forbidden territory, reconnoitring the buildings and the traffic, the embankments and dilapidated barges, towers and cranes and church spires, Parliament downriver, though the haze; dispatching back (to whom?) some ultra-classified report, compiled in mirroralphabet, or just in thoughts ...

Polly, without warning, throws up. She pukes first on to the floor between her legs, then, turning in disgust from what she's brought up, out into the aisle. It triggers screams and raucous laughter, sudden drawing up of legs to chests, a simultaneous evacuation of all bodies from the event's epicentre and, pushing back against this from the seats on its periphery, a wave of curious encroachment. Miss Sedge has stridden over – a little too briskly, almost landing knee-length leather boots in vomit that is pink and lurid and still, as per the manufacturer's design, cracking and popping as the upthrown enzymatic juices release from melting flakes the pressurised carbon dioxide trapped inside them.

'She was eating Pop Rocks, Miss,' says Vicky.

Miss Sedge plants her feet on the vomit-lake's shores, leans over and winches Polly from her seat. As she's led to the front, the girl turns back and shouts at her informer:

'Four-eyed cunt!'

For the rest of the ride, the lake shape-changes with the bus's movement, spawning pools and channels, oxbows, forks and branches. Trevor, playing the joker, hooks his arm between two seat-backs and hangs right above it; when the bus, clearing the bridge, turns sharp right into Millbank, he loses his balance and starts to slip - or is this still part of the act? No one gets to find out: Miss Sedge strides over again and plucks him away too, slaps his face one-two with both sides of her free hand, then bundles him into the front row beside her and Polly. As he turns round to take a curtain call, leering back glow-cheeked at his classmates, his smirking eye catches Markie's; Markie looks away. The vomit's smell's coming on strong now; children start lifting scarves and collars to their noses. Markie wedges his gloves, conjoined by outward rolling of the cuffs into a ball, between his face and the window, seeking in their softness and sweet counter-smell a passkey to release him from this cabin, magic him outside to merge with cleansing spray, with light's extracted spectrum ...

They've arrived now. Into the parking bay the buses pull, two on each side of the *Mr Whippy* van that's blocking out the central stretch. In Markie's there's a rush towards the door, which remains closed while Miss Sedge shouts instructions for outside

assembly. When it finally accordions back, children tumble on to the pavement and suck air into their lungs like surfacing free divers. High above them, from atop the Tate's stone portico, armed with flag and trident and flanked by her lion and unicorn, Britannia stares down like a disapproving headmistress. Orders go ignored as busloads mingle, bringing one another up to date: Cudjo Sani, on the lead bus, threw up too; on the second one a fight's left Jason Banner with a bleeding scratch across his cheek ... Some children slink away into the garden; others hop up and down the building's steps. It's on these steps that teachers re-corral them into class-groups: four inclining columns that are led up past the Tate's vertical ones - only to crumble, bottlenecked by the revolving door. Beyond this, the marble atrium's an echo chamber, multiplying cries and whistles to unbearable cacophony; all four class teachers shout in an attempt to bring the noise under control, which only makes it louder. One of the Tate's guards, whose burly figure and demeanour mark him as an ex-serviceman, steps in, unleashing a deep bass that quietens the children less from obedience than from curiosity: his voice seems to rise from the whorled depths of the staircase down which the floor's two-tone mosaic disappears. Their attention won, he orders them to leave their coats in the cloakroom's group area, then oversees this order's execution, mess-inspection memories flickering across his eyes as arms wriggle out of anorak- and duffel-sleeves.

Markie hangs his coat up on a hook, but keeps the gloves. Holding them up to his face again, watching Bea drop her parka to the floor and step out of it (the zip's stuck), he starts experiencing a sense of overlay – the same effect as when Miss Sedge, back in the classroom, slides one sheet of acetate above another on her overhead projector to create across the wall an image not found on the individual sheets themselves. For a few moments, he's half here in the Tate's vestry, and half in the changing rooms at Peckham Baths – in *both* locations without really being in either. It's not just the mass transit and disrobing, nor that the same type of metal coat-hook lines both spaces' walls. No, this composite

effect is pegged on something more particular: an afternoon, a little more than two weeks ago; Markie paired, as today, with Nainesh, two to a cubicle, peeling off socks and trousers – and realising, from the voices sailing past the flimsy metal panel separating their stall from its neighbour, that Bea and Emma Dalton were changing right next to them.

The understanding hit the two boys simultaneously; both suddenly fell quiet, eyes moving up and down the flaked partition, which rose far too high to allow over-peeping – but (eyes signalled one another) its base ... Its base gave off at shin-height, leaving a low, narrow void-strip. Nainesh, smiling, slowly crouched down to the floor, beckoning Markie: *Here, come* ... They had to press their cheeks right to the quartz-and-granite slab to reach the vantage point: from there, the hidden space swung into view around the panel-base's hinge; and, as though looking upwards while passing through some portico as lofty as the Tate's, they saw two sets of bare legs towering above them like the trunks of redwood trees, parallels playing perspectival tricks by narrowing and widening out into thighs before converging, at what should have been infinity but was in truth a mere two feet away, into unfoliaged waist-canopies, joins forming folds that bracketed more folds, all flesh-lines moving in strange synchronicity as Bea and Emma, oblivious to the perverse gazes being directed at them from below, marched up and down on the spot, singing the aria they'd been learning for the upcoming school concert:

Toreador on guard now, Toreador! Toreador! Mind well that when in danger thou shalt be, Fond eyes gaze and adore,
And true love waits for thee, Toreador,
And true love waits for thee!

The angle prevented Markie from seeing Bea's face; Emma's either – but Bea was closest to him, and it's Bea around whom the visual conundrum has accreted in the fifteen-day interim: how

to reconcile the two views, the two angles, the two vistas – trunk and visage – two parts of a whole whose *whole*ness he would love to somehow hold to him, clasp and sink into; but ...

They're being handed over to one of the Tate's school-group guides. A slight woman in her twenties, she starts telling the children all about Joan Miró.

'Miró,' she trills in a voice full of what Markie instantly recognises as not enthusiasm itself but rather an intent to enthuse, 'learnt to paint when he was about your age. He loved the shapes and colours of his native Barcelona, which were bright and curvy and just full of life. He loved these shapes and colours so much,' she continues, 'that he's carried them inside him ever since. Although he's an old man now, and one of the world's most famous living artists, he still paints with the imagination and the vision of a child – which is why we're always *particularly* happy when children like you come and look at what he's done. Now, I'm going to pass round these ...'

Worksheets are distributed. There are shapes to spot and tick off; symbols (sun, moon, woman) ditto; then questions about how the paintings make the children feel; a box to fill with their own bright and curvy drawings; and so forth. Trevor rolls his into a hardened tube and swats Jo Fife over the head with it; Vicky starts worrying at the edges of hers, tattering them. They're instructed not to touch the artworks, nor to stand too near. Then they're led, past two more sets of columns, through the polished mausoleum of the building's inner hall to the side galleries. Once in, they fan out through the rooms, zigzagging from wall to wall as they I-spy; clustering in twos and threes to compare notes and rates of progress; squeezing on to benches or planting themselves cross-legged on the floor to copy titles. Markie ambles his way past hangman figures, scribbled stars and charmingly imperfect circles, undulating harlequins, hanging pendula of heads and limbs, past kites and suns (he ticks that one off) and a snakes-and-ladders game that's left the board to take over a house – up, down, diagonal, the whole space - with cats and fish and jack-in-the-boxes joining in,

while the game's die, which has mutated into a cuboid chrysalis, hatches a dragonfly or hornet or who knows what other manner of misshapen insect. He holds his glove-ball to his face each time he pauses in front of a painting, and breathes in its compacted softness while he contemplates the image. The glove-ball is misshapen too; not, strictly speaking, a ball – at least not a sphere – but elongated and with finger-tentacles, also turned felt-side outwards, protruding from its base, a fragile home-made teddy squid or octopus ...

It's in the third or fourth room that he pauses for the longest. The schoolchild-spread has thinned right out by now; Markie finds himself alone in front of a big picture. The picture shows a kind of skittle-person standing on a beach, throwing a stone at a bird made up of a few basic shapes. The person has a single, massive foot on which he seems to rock; the bird, a punk shock of red hair, a rooster's comb. The person's face is featureless save for a single egg-yolk-yellow eye in which a red-flecked, black-dot pupil sits; the bird's head, similarly, is formed of nothing more than a blue circle with black dots for eye and nose. It also has a tail of crescent moon. Between the figures, bird and person, the stone is a kind of moon, too: pockmarked, half shaded and half bathed in pale-grey light. The person's throwing it at the bird by means of a thin black beam that serves him for an arm, pivoted around a black-dot navel in his skittle-belly: as he rocks back on his swollen foot, the beam seems to rotate or to be catapulted down to fling the stone towards the bird. There's even a dotted line showing the former's trajectory towards the latter, like a cutting dash marked on a dress maker's pattern sheet. The strange thing, even in this strange set-up, is that not only is the stone hurtling towards the bird; the bird, too, seems to be flying deliberately towards the stone, its head straining to meet it in mid-flight. Around this drama the beach stretches, empty and yellow as the thrower's egg-yolk eye. Beyond the beach, the sea is black, devoid of boats, swimmers or even waves and swells, patches of light and shade or anything that might communicate the qualities of water. It's not really trying to

represent a sea at all – just oil, black and opaque, applied unmixed and undiluted from a paint tube, spread in a horizontal strip across the middle of the canvas. Above it, and above the beach, above the boy and bird and stone, a scumble-mass of dark-green clouds erupts and billows angrily, unfurling from their hems and underhangs more darkness.

Why does Markie stand in front of this one for so long? It's rich in I-spy targets (two moons), but he doesn't tick them off. There's something beyond odd about it, something not right, something - even by the game-rules of this painted world in which he's interloping - wrong. It has to do with the bird flying towards the stone rather than from it. With its flaring red coxcomb, its taut semicircle stick-wing, it seems to be springing from some brake or heather off the painting's bottom edge, to rise exultantly towards the stone; to be willing the collision. The whole space seems to be willing it. There's an inevitability about it; all the scene's routes and ranges, all its ambits, gradients and courses seem to have been plotted - lines and angles, dots and seams. It's not just that that's wrong, though: there's something else, too ... On the beach, the barren and indifferent beach, its jutting shoreline where yellow meets black, two thorn- or fin-shaped sandy points are (just like the dot-eye of the thrower) daubed with red – that is, with blood. Which must mean that the bird's stoning, the event which the painting is showing, has already taken place - although it hasn't: this is lead-up, instant-just-before ... That's what's wrong - so wrong that Markie feels the need to plant his feet more firmly on the floorboards, to affirm some kind of stable ground or grounding. It could be, he tries to tell himself - it could be that the skittle-person stoned another bird before the curtain on this scene was raised; that he's a serial bird-killer, knocking off one bird after another, thunk thunk thunk, all day long; or perhaps part of a bird-hunting party whose other members we can't see ... But Markie knows, even as he trots out the explanations inside his head, that they won't hold up: in this painting's universe there's only one bird, and only one person - nothing else. They are its universe, locked together in celestial terror, the yellow, lidless and black-centred sun in the thrower's face the only source of light, condemned to gaze unblinkingly, to shine in red-flecked perpetuity on its own crime ...

'Oi! Phocan!'

Trevor has materialised in the room. Has he just slipped in, or has he been here for a while? He, too, seems to have taken in the painting, and to have been taken in by it as well, but in a different way. He's sliding his eyes between it and Markie, back and forth, and beaming a malevolent, complicit smile. The two aren't friends, but Trevor's face, like Nainesh's back in the cubicle, seems to presume some kind of mutual understanding, to signal recognition of a co-conspirator. He's standing a few feet away to Markie's left – or, actually, crouching, head and shoulders lowered almost to waist-level and one foot extended backwards: set, springloaded, ready to jump upwards and across. His eyes point at the bird, then at the stone, then at the glove-ball Markie's holding in his right hand.

Markie knows exactly what Trevor wants; the clarity of the communication's almost psychic. It's not from mischievousness or a desire to break rules that he now straightens his right arm; it's the positions, distances, relations ... He's obeying rules, scored in the tablet of the canvas. He draws in his stomach, feels his navel turn into a vortex of dark energy, and, stretching his right arm back behind his head, rocks on his suddenly enormous-seeming heel, first back, then – fast, forcefully – forwards, bringing the arm pivoting around its point, the hand swinging down in a dotarc whose geometric regularity he doesn't need a paintbrush to discern; it's written in the air, in the flight of the glove-ball that the hand releases, hurtling now through the gallery's empty space to meet Trevor's head – which, his legs having propelled his body into momentary flight, is gliding eagerly towards it ...

Thunk. The collision's softer, feltier than bird's and stone's. Nor does Trevor die: he falls back to the floor, feet landing out of sync with one another, torso thudding to a halt above them in

a graceless, unaesthetic manner. His fists pump in celebration of some imaginary headed goal – but it's not about him any more: his part's completed; Trevor's body and entire existence can now fall away like spent booster tanks. What it's about now is the glove-ball, which has undergone both course-change and sudden acceleration: contact with Trevor's head has catapulted it back out again - not towards Markie, but across a new, third plane; the one that, in a painting, exists only in illusory or perspectival form, but, in a room, a real room like this gallery, is there, voluminous and light and dusty and traversable. Simply put: the thing is flying through the air towards the picture. For a stretch that lasts a fraction of a second but which Markie, returning to afterwards, will be able to enter and rerun from many, widely spread-out points, he watches, frozen in position (right arm and shoulder lowered in the casting's follow-through) and at the same time plunging forwards with the missile, straight into the clouds, their angry, black-hemmed green ...

Then, with another thunk – a clear one that reverberates around the gallery - the glove-ball hits the canvas. It strikes high up and centrally, above and to the right of the picture's own missile, near the arm-beam's apex. Does it actually remain there for a moment, or is this just retinal delay? For what seems like several seconds Markie sees it clinging to the painted surface. Figure, bird, stone, beach and sky and sea all shudder, unsettled by their world's offcentring. Then slowly, almost languidly, the glove-ball peels itself loose and, spent too, drops to the floor. Then nothing: total stasis - in the work, the room, in everywhere and everything. It's like a kind of vacuum. Markie's ears go funny; in the space between them, there's that loud absence of sound that brings with it a sense of vertigo, of cranial expanse beyond all manageable scale. Then, from all around, from every object and each surface - bird and figure, frame and wall, from lights and doorways, benches, exit signs and air, swooping and billowing and bearing down, zeroing in, accusatory and righteous, on him and him alone (Trevor has long since slunk away) - comes the alarm.

The next few things all happen very fast. Adults appear about him in a rush, their limbs and faces merging: Miss Sedge's leather boots are in there somewhere; so are guards' caps and jackets, and clusters of furious mouths working their jaws at him, words lost beneath the electronic wail, and hands grabbing his arms. Markie makes no attempt to evade these. He hasn't moved at all since the alarm went off. There are kids pressing in too: scurrying over to witness the capture, drink in the scene's red-handedness, grab a front seat to the dumbshow kangaroo court in session right before them, watch some ritual of punishment or sacrifice play itself out. They're to be disappointed, though. Markie is bundled from the gallery by a guard who parts the sea of gawkers with an imperious arm-wave; led through a side door marked Staff Only; then a fire door, and then down a corridor with concrete, untiled flooring; across a musty locker room in which casual shirts and trousers hang; and, finally, up some rather flimsy metal stairs into a chamber where two more guards - one white, one black - are sitting before a console.

Once here, the warder releases his grip on Markie's arm – and the boy starts to shake. The seated guards watch him for a few seconds; then the white one, turning from him with an air of cold disinterest, asks:

'Where's his mother?'

'He came here with his school,' the warder answers.

'Teacher, then.'

The warder leaves. The white guard turns back to the console, a banked set of TV screens with a control panel beneath them. The black one is still watching Markie. This one's older, with a thickset frame and wavy-electric hair that's greying around the temples. After a while he mumbles:

'Maybe he want some water.'

The white guard glances fleetingly at Markie, then at his colleague, who looks back at him expressionless but firm. They stay this way for three or four seconds; then the white guard clicks his tongue in irritation, rises from his chair and leaves the chamber.

The remaining guard shifts his gaze back leisurely on to the boy. It's an overbearing gaze – but calming, too: after a while Markie realises that the shaking has stopped.

'You want to see the replay?'

The man's voice is deep and slow: the same West Indian bass that Markie's heard on Brixton market stalls and jerk stands, from Rastas in knitted hats grouped around cab-office doors and cafe counters. The alarm's wail that has pursued him all the way to this chamber from the gallery falls quiet.

'You want to see, or not?'

Markie's not sure what the man means. He stands there stupidly, just looking back at him.

'Come.'

He's beckoning him over. Markie comes. The adult guides him to a spot beside his chair from which he, too, can watch the screens. There are nine of these, stacked in three rows of three: regular black-and-white TV sets, like you'd see in the window of an electronics shop – only these ones, rather than parading an array of makes and models to appraising customers, present a wall of identical, repeating units: pared-down, grey-cased monitors whose two black knobs are unadorned by channel markings. They seem, at first, to all be displaying the same scene: a silent room, shown from an overhead, slightly aslant angle. But this is an illusion, brought on by the uniformity of scale and setting: Markie starts to notice that some of the rooms have benches in them, some not; that some have doorway-openings at the screen's left, others at the right, or top, or not at all; that some have one or two people in them, others none, or many. The people move strangely: at normal speed, but with a motion that's somehow imprecise and fluid at the same time, as though they were immersed in water, and the rooms were aquaria. Ever since he passed the restricted staff and fire doors, Markie's had a sense of being backstage, amidst the scaffolding and props not just of the museum but, somehow, of the entire experience he was supposed to undergo here today. This vision now - multiple, partitioned into cubicles

whose occupants can't see each other but into each of which he, like an unobserved Britannia, can peer down, or up, or both at the same time – compounds this feeling. It's as though he were looking at another world – another world that is still recognisably *this* one. There are children milling around three of the screens; there, on one of them, is Polly; on another he picks out Nainesh, Vicky ... there's Miss Sedge ... and there's Trevor, standing alone, trying to busy himself in his worksheet while glancing up from time to time towards the camera, wondering if it has found him out ...

The guard switches a button on his console; one of the screens goes blank, then jumps back into life as lines flicker and jag across it. The man's creating this effect by pressing a lever, a small joystick; when his thumb eases off the stick, the jagging stops – and Markie sees a small boy, whom the rolled-up gloves in his right hand as he stands before a figure, bird and landscape drained of colour identify as no one but himself.

'But how ...?' he starts to ask.

The guard pauses the joystick and raises an eyebrow to elicit the question's completion.

'I mean ...' Markie tries again, 'I'm here.'

The guard smiles for the first time now.

'I said we'd watch the replay,' he tells Markie. 'Look.'

His thumb nudges the joystick to its right. The boy on the requisitioned screen does nothing. He continues to do nothing for some time. The guard nudges the stick further rightwards, scrambling the screen into jagging lines once more; then releases it as a change in the lines' texture betrays the presence of a second figure, entering to the boy's left.

'Here's where it hot up,' the guard murmurs.

Unscrambled once more, same-but-different Markie's arm comes back and forwards, and the glove-ball travels towards same-but-different Trevor's rising head and on into the canvas, all with the dislocated liquid motion everything on these monitors has. The guard is slowly nodding. When he turns once more to face him Markie sees approval written in his features.