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COLOR

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- *Take a sheet of paper and a pencil. Draw a rectangle within the borders of the paper. It should look like a rectangle within a rectangle. Now take your pencil and begin to fill the inner rectangle in with graphite. End when the inner rectangle is full of graphite.*
- *Take a walk with a digital camera. Find interesting things to photograph- but zoom in while taking the photo until the image is a single color from that interesting thing. Upload them to a computer and email them to friends and family. Tell them this is an interesting thing you found.*
- *Clean out your closet of unnecessary clothes. Cut them into strips of fabric. Using the knotted rustic rag rug method (Google search and watch YouTube videos) create a unique and personally colored rug.*
- *Go to your local art store. Purchase the basics: pre-stretched canvas, an appropriately sized brush to your canvas size of choice, large tubes of paint in black, white, blue, red, and yellow (oil or acrylic will do). Mix a color a day and apply it to the canvas. Purchase one canvas a day until you run out of paint.*
- *For a month write down all the colors you see while you are seeing them.*



BLIND

BLIND

BLIND

BLIND



For a month write down all the colors
you see while you are seeing them.



bent on profitable cruises, the profit to be counted down in dollars from the mint. He was intent on an audacious, immitigable, and supernatural revenge.

Here, then, was this grey-headed, ungodly old man, chasing with curses a Job's whale round the world, at the head of a crew, too, chiefly made up of mongrel renegades, and castaways, and cannibals—morally enfeebled also, by the incompetence of mere unaided virtue or right-mindedness in Starbuck, the invulnerable jollity of indifference and recklessness in Stubb, and the pervading mediocrity in Flask. Such a crew, so officered, seemed specially picked and packed by some infernal fatality to help him to his monomaniac revenge. How it was that they so aboundingly responded to the old man's ire—by what evil magic their souls were possessed, that at times his hate seemed almost theirs; the White Whale as much their insufferable foe as his; how all this came to be—what the White Whale was to them, or how to their unconscious understandings, also, in some dim, unsuspected way, he might have seemed the gliding great demon of the seas of life,—all this to explain, would be to dive deeper than Ishmael can go. The subterranean miner that works in us all, how can one tell whither leads his shaft by the ever shifting, muffled sound of his pick? Who does not feel the irresistible arm drag? What skiff in tow of a seventy-four can stand still? For one, I gave myself up to the abandonment of the time and the place; but while yet all a-rush to encounter the whale, could see naught in that brute but the deadliest ill.

CHAPTER 42

The Whiteness of the Whale

What the White Whale was to Ahab, has been hinted; what, at times, he was to me, as yet remains unsaid.

Aside from those more obvious considerations touching Moby Dick, which could not but occasionally awaken in

any man's soul some alarm, there was another thought, or rather vague, nameless horror concerning him, which at times by its intensity completely overpowered all the rest; and yet so mystical and well nigh ineffable was it, that I almost despair of putting it in a comprehensible form. It was the whiteness of the whale that above all things appalled me. But how can I hope to explain myself here; and yet, in some dim, random way, explain myself I must, else all these chapters might be naught.

Though in many natural objects, whiteness refiningly enhances beauty; as if imparting some special virtue of its own, as in marbles, japonicas, and pearls; and though various nations have in some way recognized a certain royal pre-eminence in this hue; even the barbaric, grand old kings of Pegu placing the title "Lord of the White Elephants" above all their other magniloquent ascriptions of dominion; and the modern kings of Siam unfurling the same snow-white quadruped in the royal standard; and the Hanoverian flag bearing the one figure of a snow-white charger; and the great Austrian Empire, Cæsarian, heir to overlording Rome, having for the imperial color the same imperial hue; and though this pre-eminence in it applies to the human race itself, giving the white man ideal mastership over every dusky tribe; and though, besides all this, whiteness has been even made significant of gladness, for among the Romans a white stone marked a joyful day; and though in other mortal sympathies and symbolizings, this same hue is made the emblem of many touching, noble things—the innocence of brides, the benignity of age; though among the Red Men of America the giving of the white belt of wampum was the deepest pledge of honor, though in many climes, whiteness typifies the majesty of Justice in the ermine of the Judge, and contributes to the daily state of kings and queens drawn by milk-white steeds; though even in the higher mysteries of the most august religions it has been made the symbol of the divine spotlessness and power; by the Persian fire worshippers, the white forked flame being held the holiest on the altar; and in the Greek mythologies, Great Jove himself being made incarnate in a snow-white bull; and though to the noble Iroquois, the midwinter sacrifice of the sacred White Dog was by far the holiest festival of their theology, that spotless, faithful creature being held the pur-

est envoy they could send to the Great Spirit with the annual tidings of their own fidelity; and though directly from the Latin word for white, all Christian priests derive the name of one part of their sacred vesture, the alb or tunic, worn beneath the cassock; and though among the holy poms of the Romish faith, white is specially employed in the celebration of the Passion of our Lord; though in the Vision of St. John, white robes are given to the redeemed, and the four-and-twenty elders stand clothed in white before the great white throne, and the Holy One that sitteth there white like wool; yet for all these accumulated associations, with whatever is sweet, and honorable, and sublime, there yet lurks an elusive something in the innermost idea of this hue, which strikes more of panic to the soul than that redness which affrights in blood.

This elusive quality it is, which causes the thought of whiteness, when divorced from more kindly associations, and coupled with any object terrible in itself, to heighten that terror to the furthest bounds. Witness the white bear of the poles, and the white shark of the tropics; what but their smooth, flaky whiteness makes them the transcendent horrors they are? That ghastly whiteness it is which imparts such an abhorrent mildness, even more loathsome than terrific, to the dumb gloating of their aspect. So that not the fierce-fanged tiger in his heraldic coat can so stagger courage as the white-shrouded bear or shark.*

Bethink thee of the albatross, whence come those clouds of spiritual wonderment and pale dread, in which that white

*With reference to the Polar bear, it may possibly be urged by him-who would fain go still deeper into this matter, that it is not the whiteness, separately regarded, which heightens the intolerable hideousness of that brute; for, analysed, that heightened hideousness, it might be said, only arises from the circumstance, that the irresponsible ferociousness of the creature stands invested in the fleece of celestial innocence and love; and hence, by bringing together two such opposite emotions in our minds, the Polar bear frightens us with so unnatural a contrast. But even assuming all this to be true; yet, were it not for the whiteness, you would not have that intensified terror.

As for the white shark, the white gliding ghostliness of repose in that creature, when beheld in his ordinary moods, strangely tallies with the same quality in the Polar quadruped. This peculiarity is most vividly hit by the French in the name they bestow upon that fish. The Romish mass for the dead begins with "Requiem eternam" (eternal rest), whence *Requiem* denominating the mass itself, and any other funereal music. Now, in allusion to the white, silent stillness of death in this shark, and the mild deadliness of his habits, the French call him *Requin*.

phantom sails in all imaginations? Not Coleridge first threw that spell; but God's great, unflattering laureate, Nature.*

Most famous in our Western annals and Indian traditions is that of the White Steed of the Prairies; a magnificent milk-white charger, large-eyed, small-headed, bluff-chested, and with the dignity of a thousand monarchs in his lofty, overscorning carriage. He was the elected Xerxes of vast herds of wild horses, whose pastures in those days were only fenced by the Rocky Mountains and the Alleghanies. At their flaming head he westward trooped it like that chosen star which every evening leads on the hosts of light. The flashing cascade of his mane, the curving comet of his tail, invested him with housings more resplendent than gold and silver-beaters could have furnished him. A most imperial and archangelical apparition of that unfallen, western world, which to the eyes of the old trappers and hunters

*I remember the first albatross I ever saw. It was during a prolonged gale, in waters hard upon the Antarctic seas. From my forenoon watch below, I ascended to the overclouded deck; and there, dashed upon the main hatches, I saw a regal, feathery thing of unspotted whiteness, and with a hooked, Roman bill sublime. At intervals, it arched forth its vast archangel wings, as if to embrace some holy ark. Wondrous flutterings and throbbings shook it. Though bodily unharmed, it uttered cries, as some king's ghost in supernatural distress. Through its inexpressible, strange eyes, methought I peeped to secrets which took hold of God. As Abraham before the angels, I bowed myself; the white thing was so white, its wings so wide, and in those for ever exiled waters, I had lost the miserable warping memories of traditions and of towns. Long I gazed at that prodigy of plumage. I cannot tell, can only hint, the things that darted through me then. But at last I awoke; and turning, asked a sailor what bird was this. A goney, he replied. Goney! I never had heard that name before; is it conceivable that this glorious thing is utterly unknown to men ashore! never! But some time after, I learned that goney was some seaman's name for the albatross. So that by no possibility could Coleridge's wild Rhyme have had aught to do with those mystical impressions which were mine, when I saw that bird upon our deck. For neither had I then read the Rhyme, nor knew the bird to be an albatross. Yet, in saying this, I do but indirectly burnish a little brighter the noble merit of the poem and the poet.

I assert, then, that in the wondrous bodily whiteness of the bird chiefly lurks the secret of the spell; a truth the more evinced in this, that by a solecism of terms there are birds called grey albatrosses; and these I have frequently seen, but never with such emotions as when I beheld the Antarctic fowl.

But how had the mystic thing been caught? Whisper it not, and I will tell; with a treacherous hook and line, as the fowl floated on the sea. At last the Captain made a postman of it; tying a lettered, leathern tally round its neck, with the ship's time and place; and then letting it escape. But I doubt not, that leathern tally, meant for man, was taken off in Heaven, when the white fowl flew to join the wing-folding, the invoking, and adoring cherubim!

revived the glories of those primeval times when Adam walked majestic as a god, bluff-bowed and fearless as this mighty steed. Whether marching amid his aides and marshals in the van of countless cohorts that endlessly streamed it over the plains, like an Ohio; or whether with his circumambient subjects browsing all around at the horizon, the White Steed gallopingly reviewed them with warm nostrils reddening through his cool milkiness; in whatever aspect he presented himself, always to the bravest Indians he was the object of trembling reverence and awe. Nor can it be questioned from what stands on legendary record of this noble horse, that it was his spiritual whiteness chiefly, which so clothed him with divineness; and that this divineness had that in it which, though commanding worship, at the same time enforced a certain nameless terror.

But there are other instances where this whiteness loses all that accessory and strange glory which invests it in the White Steed and Albatross.

What is it that in the Albino man so peculiarly repels and often shocks the eye, as that sometimes he is loathed by his own kith and kin! It is that whiteness which invests him, a thing expressed by the name he bears. The Albino is as well made as other men—has no substantive deformity—and yet this mere aspect of all-pervading whiteness makes him more strangely hideous than the ugliest abortion. Why should this be so?

Nor, in quite other aspects, does Nature in her least palpable but not the less malicious agencies, fail to enlist among her forces this crowning attribute of the terrible. From its snowy aspect, the gauntleted ghost of the Southern Seas has been denominated the White Squall. Nor, in some historic instances, has the art of human malice omitted so potent an auxiliary. How wildly it heightens the effect of that passage in Froissart, when, masked in the snowy symbol of their faction, the desperate White Hoods of Ghent murder their bailiff in the market-place!

Nor, in some things, does the common, hereditary experience of all mankind fail to bear witness to the supernaturalism of this hue. It cannot well be doubted, that the one visible quality in the aspect of the dead which most appals the gazer, is the marble pallor lingering there; as if indeed that pallor were as much like the badge of consternation

in the other world, as of mortal trepidation here. And from that pallor of the dead, we borrow the expressive hue of the shroud in which we wrap them. Nor even in our superstitions do we fail to throw the same snowy mantle round our phantoms; all ghosts rising in a milk-white fog—Yea, while these terrors seize us, let us add, that even the king of terrors, when personified by the evangelist, rides on his pallid horse.

Therefore, in his other moods, symbolize whatever grand or gracious thing he will by whiteness, no man can deny that in its profoundest idealized significance it calls up a peculiar apparition to the soul.

But though without dissent this point be fixed, how is mortal man to account for it? To analyse it, would seem impossible. Can we, then, by the citation of some of those instances wherein this thing of whiteness—though for the time either wholly or in great part stripped of all direct associations calculated to impart to it aught fearful, but, nevertheless, is found to exert over us the same sorcery, however modified;—can we thus hope to light upon some chance clue to conduct us to the hidden cause we seek?

Let us try. But in a matter like this, subtlety appeals to subtlety, and without imagination no man can follow another into these halls. And though, doubtless, some at least of the imaginative impressions about to be presented may have been shared by most men, yet few perhaps were entirely conscious of them at the time, and therefore may not be able to recall them now.

Why to the man of untutored ideality, who happens to be but loosely acquainted with the peculiar character of the day, does the bare mention of Whitsuntide marshal in the fancy such long, dreary, speechless processions of slow-pacing pilgrims, downcast and hooded with new-fallen snow? Or, to the unread, unsophisticated Protestant of the Middle American States, why does the passing mention of a White Friar or a White Nun, evoke such an eyeless statue in the soul?

Or what is there apart from the traditions of dungeoned warriors and kings (which will not wholly account for it) that makes the White Tower of London tell so much more strongly on the imagination of an untravelled American, than those other storied structures, its neighbors—the By-

ward Tower, or even the Bloody? And those sublimer towers, the White Mountains of New Hampshire, whence, in peculiar moods, comes that gigantic ghostliness over the soul at the bare mention of that name, while the thought of Virginia's Blue Ridge is full of a soft, dewy, distant dreaminess? Or why, irrespective of all latitudes and longitudes, does the name of the White Sea exert such a spectralness over the fancy, while that of the Yellow Sea lulls us with mortal thoughts of long lacquered mild afternoons on the waves, followed by the gaudiest and yet sleepest of sunsets? Or, to choose a wholly unsubstantial instance, purely addressed to the fancy, why, in reading the old fairy tales of Central Europe, does "the tall pale man" of the Hartz forests, whose changeless pallor unrustingly glides through the green of the groves—why is this phantom more terrible than all the whooping imps of the Blocksburg?

Nor is it, altogether, the remembrance of her cathedral-topping earthquakes; nor the stampede of her frantic seas; nor the tearlessness of arid skies that never rain; nor the sight of her wide field of leaning spires, wrenched copestones, and crosses all adroop (like canted yards of anchored fleets); and her suburban avenues of house-walls lying over upon each other, as a tossed pack of cards;—it is not these things alone which make tearless Lima, the strangest, saddest city thou can'st see. For Lima has taken the white veil; and there is a higher horror in this whiteness of her woe. Old as Pizarro, this whiteness keeps her ruins for ever new; admits not the cheerful greenness of complete decay; spreads over her broken ramparts the rigid pallor of an apoplexy that fixes its own distortions.

I know that, to the common apprehension, this phenomenon of whiteness is not confessed to be the prime agent in exaggerating the terror of objects otherwise terrible; nor to the unimagined mind is there aught of terror in those appearances whose awfulness to another mind almost solely consists in this one phenomenon, especially when exhibited under any form at all approaching to muteness or universality. What I mean by these two statements may perhaps be respectively elucidated by the following examples.

First: The mariner, when drawing nigh the coasts of foreign lands, if by night he hears the roar of breakers, starts to vigilance, and feels just enough of trepidation to sharpen

all his faculties; but under precisely similar circumstances, let him be called from his hammock to view his ship sailing through a midnight sea of milky whiteness—as if from encircling headlands shoals of combed white bears were swimming round him, then he feels a silent, superstitious dread; the shrouded phantom of the whitened waters is horrible to him as a real ghost; in vain the lead assures him he is still off soundings; heart and helm they both go down; he never rests till blue water is under him again. Yet where is the mariner who will tell thee, "Sir, it was not so much the fear of striking hidden rocks, as the fear of that hideous whiteness that so stirred me?"

Second: To the native Indian of Peru, the continual sight of the snow-howdahed Andes conveys naught of dread, except, perhaps, in the mere fancy of the eternal frosted desolateness reigning at such vast altitudes, and the natural conceit of what a fearfulness it would be to lose oneself in such inhuman solitudes. Much the same is it with the backwoodsman of the West, who with comparative indifference views an unbounded prairie sheeted with driven snow, no shadow of tree or twig to break the fixed trance of whiteness. Not so the sailor, beholding the scenery of the Antarctic seas; where at times, by some infernal trick of legerdemain in the powers of frost and air, he, shivering and half shipwrecked, instead of rainbows speaking hope and solace to his misery, views what seems a boundless churchyard grinning upon him with its lean ice monuments and splintered crosses.

But thou sayest, methinks this white-lead chapter about whiteness is but a white flag hung out from a craven soul; thou surrenderest to a hypo, Ishmael.

Tell me, why this strong young colt, foaled in some peaceful valley of Vermont, far removed from all beasts of prey—why is it that upon the sunniest day, if you but shake a fresh buffalo robe behind him, so that he cannot even see it, but only smells its wild animal muskiness—why will he start, snort, and with bursting eyes paw the ground in phrensies of affright? There is no remembrance in him of any gorings of wild creatures in his green northern home, so that the strange muskiness he smells cannot recall to him anything associated with the experience of former per-

ils; for what knows he, this New England colt, of the black bisons of distant Oregon?

No: but here thou beholdest even in a dumb brute, the instinct of the knowledge of the demonism in the world. Though thousands of miles from Oregon, still when he smells that savage musk, the rending, goring bison herds are as present as to the deserted wild foal of the prairies, which this instant they may be trampling into dust.

Thus, then, the muffled rollings of a milky sea; the bleak rustlings of the festooned frosts of mountains; the desolate shiftings of the windrowed snows of prairies; all these, to Ishmael, are as the shaking of that buffalo robe to the frightened colt!

Though neither knows where lie the nameless things of which the mystic sign gives forth such hints; yet with me, as with the colt, somewhere those things must exist. Though in many of its aspects this visible world seems formed in love, the invisible spheres were formed in fright.

But not yet have we solved the incantation of this whiteness, and learned why it appeals with such power to the soul; and more strange and far more portentous—why, as we have seen, it is at once the most meaning symbol of spiritual things, nay, the very veil of the Christian's Deity; and yet should be as it is, the intensifying agent in things the most appalling to mankind.

Is it that by its indefiniteness it shadows forth the heartless voids and immensities of the universe, and thus stabs us from behind with the thought of annihilation, when beholding the white depths of the milky way? Or is it, that as an essence whiteness is not so much a color as the visible absence of color, and at the same time the concrete of all colors; is it for these reasons that there is such a dumb blankness, full of meaning, in a wide landscape of snows—a colorless, all-color of atheism from which we shrink? And when we consider that other theory of the natural philosophers, that all other earthly hues—every stately or lovely emblazoning—the sweet tinges of sunset skies and woods; yea, and the gilded velvets of butterflies, and the butterfly cheeks of young girls; all these are but subtle deceits, not actually inherent in substances, but only laid on from without; so that all deified Nature absolutely paints like the harlot, whose allurements cover nothing but the charnel-

house within; and when we proceed further, and consider that the mystical cosmetic which produces every one of her hues, the great principle of light, for ever remains white or colorless in itself, and if operating without medium upon matter, would touch all objects, even tulips and roses, with its own blank tinge—pondering all this, the palsied universe lies before us a leper; and like wilful travellers in Lapland, who refuse to wear colored and coloring glasses upon their eyes, so the wretched infidel gazes himself blind at the monumental white shroud that wraps all the prospect around him. And of all these things the Albino Whale was the symbol. Wonder ye then at the fiery hunt?

CHAPTER 43

Hark!

"Hist! Did you hear that noise, Cabaco?"

It was the middle-watch; a fair moonlight; the seamen were standing in a cordon, extending from one of the freshwater butts in the waist, to the scuttle-butt near the taffrail. In this manner, they passed the buckets to fill the scuttle-butt. Standing, for the most part, on the hallowed precincts of the quarter-deck, they were careful not to speak or rustle their feet. From hand to hand, the buckets went in the deepest silence, only broken by the occasional flap of a sail, and the steady hum of the unceasingly advancing keel.

It was in the midst of this repose, that Archy, one of the cordon, whose post was near the after-hatches, whispered to his neighbor, a Cholo, the words above.

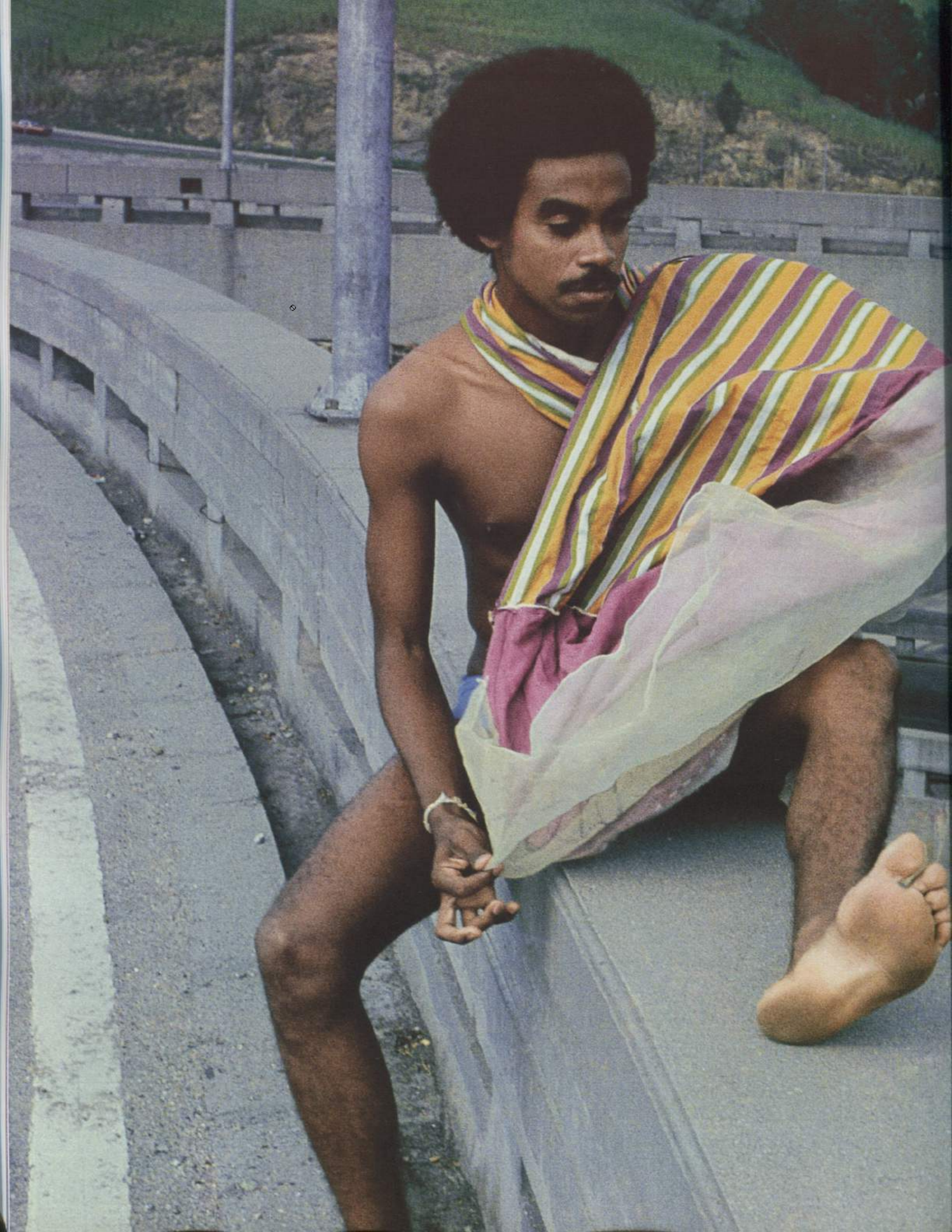
"Hist! did you hear that noise, Cabaco?"

"Take the bucket, will you, Archy? What noise d'ye mean?"

"There it is again—under the hatches—don't you hear it—a cough—it sounded like a cough."

"Cough ge damned! Pass along that return bucket."

Take a sheet of paper and a pencil. Draw a rectangle within the borders of the paper. It should look like a rectangle within a rectangle. Now take your pencil and begin to fill the inner rectangle in with graphite. End when the inner rectangle is full of graphite.



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CHAPTER ONE

Whitescapes

Sometime one summer during the early 1990s, I was invited to a party. The host was an Anglo-American art collector, and the party was in the collector's house, which was in a city at the southern end of a northern European country. First impressions on arrival at this house: It was big (but then so were the houses around it, so it didn't appear *that* big). It was the kind of area – a wealthy area of a rich city – where only small or shabby things looked strange or out of place (like the solitary drunk I saw wrapped in an old yellowish-green overcoat). The house looked ordinary enough from the outside: red brick, nineteenth or early twentieth century, substantial but unostentatious. Inside was different. Inside seemed to have no connection with outside. Inside was, in one sense, inside-out, but I only realized that much later. **Endless like an egg must look endless from the inside; endless because seamless, continuous, empty, uninterrupted. Or rather: uninterruptable. There is a difference. Uninterrupted might mean overlooked, passed by, inconspicuous, insignificant. Uninterruptable passes by *you*, renders *you* inconspicuous and insignificant.** The uninterruptable, endless emptiness of this house was

impressive, elegant and glamorous in a spare and reductive kind of way, but it was also assertive, emphatic and ostentatious. This was assertive silence, emphatic blankness, the kind of ostentatious emptiness that only the very wealthy and the utterly sophisticated can afford. It was a strategic emptiness, but it was also *accusatory*.

Inside this house was a whole world, a very particular kind of world, a very clean, clear and orderly universe. But it was also a very paradoxical, inside-out world, a world where open was also closed, simplicity was also complication, and clarity was also confusion. It was a world that didn't readily admit the existence of other worlds. Or it did so grudgingly and resentfully, and absolutely without compassion. In particular, it was a world that would remind you, there and then, in an instant, of everything you were not, everything you had failed to become, everything you had not got around to doing, everything you might as well never bother to get around to doing because everything was made to seem somehow beyond reach, as when you look through the wrong end of a telescope. This wasn't just a first impression; it wasn't just the pulling back of the curtain to reveal the unexpected stage set, although there was that too, of course. This was longer-lasting. Inside was a flash that continued.

There is a kind of white that is more than white, and this was that kind of white. There is a kind of white that repels everything that is inferior to it, and that is almost everything. This was that kind of white. There is a kind of white that is not created by bleach but that itself is bleach. This was that kind of white. This white was aggressively white. It did its work on everything around it, and nothing escaped. Some would hold the architect responsible. He was a man, it is said, who put it about that his work was 'minimalist', that his mission was to strip bare and to make pure, architecturally speaking, that his spaces were 'very direct' and 'very clear', that in them there was 'no possibility of lying' because 'they are just what they are.' He was lying, of course, telling big white lies, but we will let that pass for the moment. Some would hold this man responsible

for the accusatory whiteness that was this great hollow interior, but I suspect that it was the other way around. I suspect that the whiteness was responsible for this architect and for his hollow words.

This great white interior was empty even when it was full, because most of what was in it didn't belong in it and would soon be purged from it. This was people, mainly, and what they brought with them. Inside this great white interior, few things looked settled, and even fewer looked *at home*, and those that did look settled also looked like they had been *prepared*: approved, trained, disciplined, marshalled. Those things that looked at home looked like they had already been purged from within. In a nutshell: those things that stayed had themselves been made either quite white, quite black or quite grey. This world was entirely purged of colour. All the walls, ceilings, floors and fittings were white, all the furniture was black and all the works of art were grey.

Not all whites are as tyrannical as this one was, and this one was less tyrannical than some: 'Is it that by its indefiniteness it shadows forth the heartless voids and immensities of the universe, and thus stabs us from behind with the thought of annihilation, when beholding the white depths of the milky way?'¹ Next to the white that was Herman Melville's great Albino Whale, this white paled. Next to the deathly, obsessive white that insinuated its way into the dark heart of Joseph Conrad's Captain Marlow, this white was almost innocent. Admittedly, there was some Conradian residue in this shallower white: 'Minimalism', it seemed to say, 'is something you arrive at, a development of the sensitivity of the brain. Civilization started with ornamentation. Look at all that bright colour. The minimalist sensitivity is not the peak of civilization, but it represents a high level between the earth and sky.' But this wasn't spoken with the voice of a Marlow; it contained no irony, no terror born of the recognition that whatever appeared before you now had always seen you before it a thousand times already. Rather, this was the voice of one of Conrad's Empire functionaries, one of those stiff, starched figures

whose certainties always protect them from, and thus always propel them remorselessly towards, the certain oblivion that lies just a page or two ahead.

What is it that motivates this fixation with white?

First of all, let's get the term *minimalism* and its careless association with whiteness out of the way. In reality, this didn't occur very often at all, at least in the Minimalism that consisted of three-dimensional works of art made during the 1960s, mostly in New York. Certainly, there are a good many skeletal white structures by Sol LeWitt. And Robert Morris was suspicious of colour, so he painted his early work grey, but not white. Dan Flavin used tubes of white light – or rather daylight, or cool white, which is to say whites, not white – but his work was more often than not made in pools of intermingling coloured light: red blue green yellow orange, and white. Carl Andre: intrinsic colours, the specific colours of specific materials – woods and metals in particular – no whites there to speak of. And Donald Judd: sometimes intrinsic colours, sometimes applied, sometimes both together, sometimes shiny, sometimes transparent, sometimes polished, sometimes matt. Dozens of colours on dozens of surfaces, often in strange combinations: polished copper with shiny purple Plexiglas, or brushed aluminium with a glowing translucent red, or spray-painted enamels with galvanised steel, or whatever there was. In truth, the colours of Minimal art were often far closer to that of its exact contemporary, Pop art, than anything else. Which is to say: found colours, commercial colours, industrial colours, and often bright, vulgar, modern colours in bright, vulgar, modern collisions with other bright, vulgar, modern colours.

To mistake the colourful for the colourless or white is nothing new. But it is one thing not to know that Greek statues were once brilliantly painted; it is another thing not to see colour when it is still there. This seems to speak less of ignorance than of a kind of denial. Not perceiving what is visibly there: psychoanalysts call this negative hallucination. But we have to tread carefully here, and we should be especially careful not to

get drawn into seeing colour and white as opposites. White was sometimes used in Minimalism, but mostly as a colour and amongst many other colours. Sometimes, it was used alone, but even then it remained a colour; it did not result, except perhaps in LeWitt's structures, in a *generalized* whiteness. In these works, white remained a material quality, a specific colour on a specific surface, just as it always has done in the paintings of Robert Ryman. Ryman's whites are always just that: whites. His whites are colours; his paintings do not involve or imply the suppression of colour. His whites are empirical whites. Above all, his whites are plural. And, in being plural, they are therefore not 'pure'. Here is the problem: not white; not whites; but *generalized* white, because generalized white – whiteness – is abstract, detached and open to contamination by terms like 'pure'.

Pure white: this is certainly a Western problem, and there's no getting away from it. Conrad, who analyzed the Western problem better than most in his time and better than many in ours, could also recognize a white when he saw one. The imagery in *Heart of Darkness* is coloured almost exclusively in blacks and whites. This is not the same as the other great opposition in the narrative, that between darkness and light, although at times it comes close. Conrad's target is the generalization of whiteness and the predicates and prejudices that merge with the term and seem inseparable from it. This generalized whiteness forms a backdrop to the narrative, a bleached screen which is pierced and torn, time and again, by particular instances of white things. These things – white teeth, white hair, white bones, white collars, white marble, white ivory, white fog – always carry with them an uncanny sense of coldness, inertia and death. *White*, like *black*, like *light* and like *darkness*, becomes a highly complex term. For Conrad, to speak of white with certainty is, knowingly or otherwise, to be a hypocrite or a fool. Marlow recognizes this when he remarks that a certain European city 'always makes me think of a whited sepulchre'.² The intended reference here is to the Bible: 'Woe unto you, scribes and Pharisees, hypocrites! for ye are like unto whited sepulchres, which indeed

appear beautiful outward, but are within full of dead men's bones, and of all uncleanness. Even so ye appear outwardly righteous unto men, but within ye are full of hypocrisy and iniquity.'³ Within the first few pages of the tale, long before Marlow has set off for Africa, his own whiteness already lies in ruins. It was something to be laid to rest, as he later puts it, in 'the dustbin of progress, amongst all the sweepings and all the dead cats of civilisation'.

There are only two short passages in *Heart of Darkness* where colour, or colours, are given any attention. One is close to the beginning of the story and one is close to the end, and they are oddly symmetrical. The former comes a few lines after Marlow arrives in the sepulchral city. He enters the Company's offices, 'arid as a desert', occupied by two women, one dressed 'plain as an umbrella-cover', one 'white haired', both knitting 'black wool'. Amid this grainy monochrome, his attention is caught by 'a large shining map, marked with all the colours of a rainbow', which he describes: 'There was a vast amount of red – good to see at any time, because one knows some real work is being done in there, a duce of a lot of blue, a little green, smears of orange, and, on the East coast, a purple patch, to show where the jolly pioneers of progress drink jolly lager-beer. However', he continues ominously, 'I wasn't going into any of these. I was going into the yellow.' These vivid hues are attractive, but they are also arbitrary. And their arbitrariness is ironic: they denote the 'white' territories, whereas the white areas on maps, which had fascinated Marlow as a child, marked unmapped or 'black' areas.

If this brightly coloured map marks a kind of gateway for Marlow to one heart of darkness, his second encounter with colour is also a kind of gateway to another dark heart: his encounter with Kurtz. As his steamer draws close to Kurtz's station, Marlow sees a man on the shore:

He looked like a Harlequin. His clothes had been made of some stuff that was brown holland probably, but it was covered with

patches all over, with bright patches, blue, red, yellow, – patches on the back, patches on the front, patches on elbows, patches on knees; coloured binding around his jacket, scarlet edging at the bottom of his trousers; and the sunshine made him look extremely gay and wonderfully neat withal, because you could see how beautifully all this patching had been done.

This person, represented in Francis Ford Coppola's film *Apocalypse Now* by the crazed war photographer played by Dennis Hopper, talks incessantly and in contradictions; he has apparently travelled throughout the continent and has been both friend and enemy of Kurtz. After he departs, Marlow asks himself 'whether I had ever really seen him – whether it was possible to meet such a phenomenon!'

There is clearly a connection between these two passages. At its simplest, the patches that adorn the 'harlequin's' clothes could symbolize his erratic wandering through the various coloured patches that adorned the Company's map of Africa. But in both instances, colour is also given a kind of unreality; its arbitrariness consists of a kind of unconnectedness to anything; it is an addition or a supplement; it is artificial; it adorns. Or perhaps it is dislocated in a stronger and more dangerous sense. Either way, colour has a kind of autonomy from the unstable contradictions of black and white and the psychic confusions of darkness and light.

If Conrad punctures a generalized whiteness with numerous instances and examples of white things, Melville works in something like the opposite direction: he begins with one great big white thing and, at certain points, begins to wonder whether the terrible whiteness of this thing could be generalized beyond it and infect his more homely conception of white. 'It was the whiteness of the whale that above all things appalled me', he admits, while at the same time noting that 'in many natural objects, whiteness refiningly enhances beauty, as if imparting some special virtue of its own.' He recognizes the gravity of the impasse and his confusion:

'But how can I hope to explain myself here; and yet, in some dim, random way, explain myself I must, else all these chapters might be naught.' In the absence of an explanation, Melville, like many of us, compiles a list. His is a list of white things, in particular white creatures, which symbolize one or another kind of virtue: regal, imperial, religious, juridical, moral, communal, sexual . . . And yet, 'for all these accumulated associations, with whatever is sweet, and honourable, and sublime', Melville insists that there still 'lurks an elusive something in the innermost idea of this hue, which strikes more of panic to the soul than the redness which affrights in blood'. For Melville, as for Conrad, there is an instability in the apparent uniformity of white. **Behind virtue lurks terror; beneath purity, annihilation or death.** Not death in the sense of a life ended, but a glimpse of death-in-life: the annihilation of every cherished belief and system, every hope and desire, every known point of orientation, every illusion . . . For both writers, one of the most terrible instances of whiteness is a still, silent 'milk-white fog', which is 'more blinding than the night'. And for both, in the face of such whiteness, colour appears intolerably, almost insultingly, superficial. Melville:

And when we consider that all other earthly hues – every stately or lovely emblazoning – the sweet tinges of sunset skies and woods; yea, and all the gilded velvet of butterflies, and the butterfly cheeks of young girls; all these are but subtle deceits, not actually inherent in substances, but only laid on from without; so that all defied Nature absolutely paints like a harlot, whose allurements cover nothing but the charnel-house within; and when we proceed further, and consider that the mystical cosmetic which produces every one of her hues, the great principal of light, for ever remains white or colourless in itself, and if operating without medium upon matter, would touch all objects, even tulips and roses, with its own blank tinge – pondering all this, the palsied

universe lies before us like a leper; and like wilful travellers in Lapland, who refuse to wear colored and coloring glasses upon their eyes, so the wretched infidel gazes himself blind at the monumental white shroud that wraps all the prospect around him.

For Melville, the truth of colour is merely cosmetic; it contains 'subtle deceits'; it is 'not actually inherent in substances'; it is only 'laid on from without'. But if nature 'paints like a harlot', it is not simply to seduce us, but to protect us in its seductions from 'the charnel-house within'. We have to wear tinted spectacles; otherwise, what we might see will make us blind.

The virtuous whiteness of the West also conceals other less mystical terrors. These are more local and altogether more palpable; they are, mainly, terrors of the flesh. Melville's great white whale is, conceivably, a monstrous corruption of the great Western ideal of the classical body. This body, at least in its remodelled neo-classical version, was of course a pure, polished, unembellished, untouched and untouchable white. For Walter Pater, writing on the neo-classical scholar Winkelmann and classical sculpture sometime between the publications of *Moby Dick* and *Heart of Darkness*, this 'white light, purged from the angry, bloodlike stains of action and passion, reveals, not what is accidental in man, but the tranquil godship in him, as opposed to the restless accidents of life'.⁴ A few pages on, this light loses its whiteness and re-emerges as 'this colourless, unclassified purity of life' which is 'the highest expression of the indifference which lies beyond all that is relative and partial'. In his elision of whiteness with colourlessness, transparency and purity, Pater was at least following the logic of Winkelmann, for whom the ideal beauty of the classical form was 'like the purest water taken from the source of a spring . . . the less taste it has, the more healthy it is seen to be, because it is cleansed of all foreign elements'.⁵ Winkelmann, in his turn, was following the example of Plato, for whom truth, embodied in the Idea, was, as Martin Jay has put it, 'like a visible form blanched of its colour'.⁶

It was this classical body, further purified and corrupted in Stalinist 'realism', that Mikhail Bakhtin counterposed with the altogether more fleshy and visceral 'grotesque realism' of the medieval body. For Bakhtin, the classical form was above all a self-contained unity,

an entirely finished, completed, strictly limited body, which is shown from the outside as something individual. That which protrudes, bulges, sprouts, or branches off is eliminated, hidden or moderated. All orifices of the body are closed. The basis of the image is the individual, strictly limited mass, the impenetrable facade. The opaque surface of the body's 'valleys' acquires an essential meaning as the border of a closed individuality that does not merge with other bodies and with the world. All attributes of the unfinished world are carefully removed, as well as all signs of its inner life.⁷

Bakhtin's description of the classical body also describes with uncanny accuracy the art collector's 'minimalist' interior, where everything was finished, completed and strictly limited in a closed individuality that was not allowed to merge with the world outside. The idea that anything might protrude, bulge, sprout or branch off from this sheer whiteness was inconceivable. The inner life of this world was entirely hidden: nothing was allowed to spill out from its allotted space; all circuitry, all conduits, all the accumulated stuff that attaches itself to an everyday life remained concealed, held in, snapped shut. Every surface was a closed, impenetrable façade: cupboards were disguised as walls, there were no clues or handles or anything to distinguish one surface from another; just as there were no protrusions, neither was there a single visible aperture. In this way, openness really was an illusion maintained by closure, simplicity was ridiculously overcomplicated, and unadorned clarity was made hopelessly confusing. You really could become lost in this apparently blank and empty white space. In its need to differentiate itself from that which was

without, nothing could be differentiated within. This space was clearly a model for how a body ought to be: enclosed, contained, sealed. The ideal body: without flesh of any kind, old or young, beautiful or battered, scented or smelly; without movement, external or internal; without appetites. (That is why the kitchen was such a disturbing place – but not nearly as disturbing as the toilet.) But perhaps it was more perverse than that; perhaps this was a model of what the body should be like from within. Not a place of fluids, organs, muscles, tendons and bones all in a constant, precarious and living tension with each other, but a vacant, hollow, whited chamber, scraped clean, cleared of any evidence of the grotesque embarrassments of an actual life. No smells, no noises, no colour; no changing from one state to another and the uncertainty that comes with it; no exchanges with the outside world and the doubt and the dirt that goes with that; no eating, no drinking, no pissing, no shitting, no sucking, no fucking, no nothing.

It won't go away. Whiteness always returns. Whiteness is woven into the fabric of Culture. The Bible, again: 'Though your sins be as scarlet, they shall be as white as snow.'⁸ We can't escape, but, as Conrad and Melville have shown, sometimes it is possible to unweave whiteness from within . . . Henri Michaux, artist, poet and acid-head, writing 'With Mescaline':

And 'white' appears. Absolute white. White beyond all whiteness. White of the coming of white. White without compromise, through exclusion, through total eradication of non-white. Insane, enraged white, screaming with whiteness. Fanatical, furious, riddling the victim. Horrible electric white, implacable, murderous. White in bursts of white. God of 'white'. No, not a god, a howler monkey. (Let's hope my cells don't blow apart.) End of white. I have the feeling that for a long time to come white is going to have something excessive for me.⁹



CHAPTER TWO

Chromophobia

If it started with a short visit to an inside-out interior of a colourless whiteness where clarity was confusion, simplicity was complication, and art was uniformly grey, then it would be comforting to think that it might also end there. After all, there can't be many places like this interior which was home only to the very few things that had submitted to its harsh regime. And those few things were, in effect, sealed off from the unwanted and uncertain contingencies of the world outside. **No exchange, no seepage, no spillage. Rather: isolation, confinement. But this shutting-off began to speak more and more about what it excluded than what it contained.** What did this great white hollow make me think about? Not, for long, its whiteness. Rather, its colour.

If colour is unimportant, I began to wonder, why is it so important to exclude it so forcefully? If colour doesn't matter, why does its abolition matter so much? In one sense, it doesn't matter, or it wouldn't if we could say for certain that this inside really was as self-contained and isolated as it looked. But this house was a very *ambitious* inside. It was not a retreat, it was not a monastic emptiness. Its 'voluntary poverty' – that's

how its architect likes to talk – was altogether more righteous and evangelical. It looked like it wanted to impose its order upon the disorder around it. Like neo-classicism, like the manifestos of Adolf Loos or Le Corbusier, it wanted to rescue a culture and lead it to salvation. In which case, colour does matter. It mattered to Melville and Conrad, and it mattered to Pater and Winkelmann; it mattered to Le Corbusier, and, it turns out, it has mattered to many others for whom, in one way or another, the fate of Western culture has mattered. It mattered because it got in the way. And it still matters because it still does.

The notion that colour is bound up with the fate of Western culture sounds odd, and not very likely. But this is what I want to argue: that colour has been the object of extreme prejudice in Western culture. For the most part, this prejudice has remained unchecked and passed unnoticed. And yet it is a prejudice that is so all-embracing and generalized that, at one time or another, it has enrolled just about every other prejudice in its service. If its object were a furry animal, it would be protected by international law. But its object is, it is said, almost nothing, even though it is at the same time a part of almost everything and exists almost everywhere. It is, I believe, no exaggeration to say that, in the West, since Antiquity, colour has been systematically marginalized, reviled, diminished and degraded. Generations of philosophers, artists, art historians and cultural theorists of one stripe or another have kept this prejudice alive, warm, fed and groomed. As with all prejudices, its manifest form, its loathing, masks a fear: a fear of contamination and corruption by something that is unknown or appears unknowable. This loathing of colour, this fear of corruption through colour, needs a name: chromophobia.

Chromophobia manifests itself in the many and varied attempts to purge colour from culture, to devalue colour, to diminish its significance, to deny its complexity. More specifically: this purging of colour is usually accomplished in one of two ways. In the first, colour is made out to be the property of some 'foreign' body – usually the feminine, the oriental,

the primitive, the infantile, the vulgar, the queer or the pathological. In the second, colour is relegated to the realm of the superficial, the supplementary, the inessential or the cosmetic. In one, colour is regarded as alien and therefore dangerous; in the other, it is perceived merely as a secondary quality of experience, and thus unworthy of serious consideration. Colour is dangerous, or it is trivial, or it is both. (It is typical of prejudices to conflate the sinister and the superficial.) Either way, colour is routinely excluded from the higher concerns of the Mind. It is other to the higher values of Western culture. Or perhaps culture is other to the higher values of colour. Or colour is the corruption of culture.

Here is a near-perfect example of textbook chromophobia: 'The union of design and colour is necessary to beget painting just as is the union of man and woman to beget mankind, but design must maintain its preponderance over colour. Otherwise painting speeds to its ruin: it will fall through colour just as mankind fell through Eve.'¹ This passage was written in the last decade of the nineteenth century by the appropriately named Charles Blanc, critic, colour theorist and sometime Director of the Arts in the 1848 Socialist government in France. It is interesting on a number of counts. Blanc identified colour with the 'feminine' in art; he asserted the need to subordinate colour to the 'masculine' discipline of design or drawing; he exhibited a reaction typical of phobias (a massive overvaluation of the power of that which he feared); and he said nothing particularly original. For Blanc, colour could not simply be ignored or dismissed; it was always there. It had to be contained and subordinated – like a woman. Colour was a permanent internal threat, an ever-present inner other which, if unleashed, would be the ruin of everything, the fall of culture. For our contemporary chromophobic architect, colour also represents a kind of ruination. Colour for him signifies the mythical savage state out of which civilization, the nobility of the human spirit, slowly, heroically, has lifted itself – but back into which it could always slide. For one, colour was coded in the feminine; for the other, it

is coded in the primitive. For both, colour is a corruption, a lapse, a Fall.

There are many different accounts of the fall into colour, and many of these – well, several, enough – take the shape of stories. This chapter is, for the most part, a story of a few of those stories.

There are many ways to fall: head first, feet first; like a leaf or a stone; on a banana skin or off a log; in a blaze of glory or in the darkness of despair. A fall can be trivial or dangerous; falls have a place of honour in comedy, in the circus, in tragedy and in melodrama. A fall may be biblical or farcical or, perhaps, both. Many of the different stories of the descent into colour are stories of a fall from grace. That is to say, they have roughly similar beginnings and ends; we know very generally where they are going to finish up. In that sense, they are not mysteries. But the manner and details of the falls are what's interesting: the terms used to describe the descent; the stages and locations; the twists and turns; the costumes and props; and, finally, the place where the falling stops, the place of colour.

Charles Blanc's *Grammaire des arts du dessin* (misleadingly translated into English as a *Grammar of Painting and Engraving*), published in 1867, is as good a place as any to begin, in part because his chromophobia is not quite as clear-cut as his Old Testament rhetoric at first suggests. Blanc was, for example, a supporter of Delacroix – 'one of the greatest colourists of modern times' – and was indebted to the colour theories of the chemist Eugène Chevreul, as well as to the principles of Newtonian optics. And yet, for all his commitment to an emerging 'science' of colour, his theory of painting is expressed in terms of an almost medieval cosmology, a cosmology in which colour has a very particular place. For Blanc, 'painting is the art of expressing all the conceptions of the soul, by means of all the realities of nature.'² That is to say, while painting uses nature, its real value lies beyond nature; it deals in 'conceptions of the soul'; it is a 'work of the mind'; it is always more than descriptive as the painter 'subordinates physical beauty to moral physiognomy . . .' At the centre of Blanc's moral universe of painting (more familiar then than now) is the 'idea' embodied

in human form; the expression of the moral truth of creation requires the 'correction' of the various accidents and contingencies of nature. Nevertheless, 'the artist will necessarily represent the human figure by its peculiar, even accidental characteristics,' and for this job painting 'will be the most fitting art, because it furnishes to expression immense resources, air, space, perspective, landscape, light and shadow, colour'. This list of painting's 'immense resources' was clearly not drawn up at random, and it is no accident that colour comes in at the end, after composition, drawing and chiaroscuro. Nevertheless, for Blanc 'colour in painting is an essential, almost indispensable element, since having all Nature to represent, the painter cannot make her speak without borrowing her language.' This is a strange image – colour as the language of nature – but it is crucial, as Blanc goes on to make clear:

Intelligent beings have a language represented by articulate sounds; organised beings, like all animals and vegetables, express themselves by cries or forms, contour or carriage. Inorganic nature has only the language of colour. It is by colour alone that a certain stone tells us it is a sapphire or an emerald . . . Colour, then, is the peculiar characteristic of the lower forms of nature, while drawing becomes the medium of expression, more and more dominant, the higher we rise in the scale of being.

Colour, then, is not only low down the hierarchy of a painter's skills and resources, as it had been in Academic training from the start; it is down there because that position corresponds to colour's lowly place in the moral hierarchy of the universe.

Later, in a substantial chapter devoted to colour, Blanc questions the idea, 'repeated everyday', that 'one learns to be a draughtsman but one is born a colourist.' Nothing could be further from the truth, he argues: the whole point about colour is that it is 'under fixed laws' and is fundamentally 'easier to learn than drawing'. Here Blanc could be

alluding to Chevreul's systematic research into colour-mixture or to Newton's earlier experiments with the prismatic division of light, or even to Goethe's experiments in colour psychology. But that is not how it comes across. Rather, it is God who allows us access to the laws of colour while, at the same time, keeping us guessing about the eternal laws of form:

... the perfect form that is issued from the hand of God is unknown to us; remains always veiled from our eyes. It is not so with colour, and it would seem as if the eternal colourist had been less jealous of the secret than the eternal designer, for he has shown us the ideal of colour in the rainbow, in which we see, in sympathetic gradation, but also in mysterious promiscuity, the mother tints that engender the universal harmony of colours.

It is here, in the figure of the rainbow, that Blanc's creation theory meets modern colour theory, that God meets Newton. It is science that has allowed us to gain access to the mind of God, or at least to a small, relatively minor part of it, and through science, colour can be made finally to 'conform' to the higher requirements of the Idea.

Blanc had another problem with colour: the Chinese problem. He needed to prove that colouring was easier than drawing; that way, it didn't matter so much that 'oriental artists' were better colourists than Western ones. He conceded:

From time immemorial the Chinese have known and fixed the laws of colour, and the tradition of those fixed laws, transmitted from generation to generation down to our own days, spread throughout Asia, and perpetuated itself so well that all oriental artists are infallible colourists, since we never find a false note in the web of their colours.

But, he continued, '... would this infallibility be possible if it were not engendered by certain and invariable principles?' – principles that

had been rationally analyzed in the West. Even now that colourists could 'charm us by means that science has discovered', one had to remain on guard, for

the taste for colour, when it predominates absolutely, costs many sacrifices; often it turns the mind from its course, changes the sentiment, swallows up the thought. The impassioned colourist invents his form for his colour, everything is subordinated to the brilliancy of his tints. Not only the drawing bends to it, but the composition is dominated, restrained, forced by the colour. To introduce a tint that shall heighten another, a perhaps useless accessory is introduced . . . To reconcile contraries after having heightened them, to bring together similar after having lowered or broken them, he indulges in all sorts of licence, seeks pretexts for colour, introduces brilliant objects; furniture, bits of stuff, fragments of music, arms, carpets, vases, flights of steps, walls, animals with furs, birds of gaudy plumage; thus, little by little, the lower strata of nature take the first place instead of human beings which alone ought to occupy the pinnacle of art, because they alone represent the loftiest expression of life, which is thought.

And where does that leave us? Fallen. From a lofty place tantalizingly close to God, we have fallen down flights of steps, past furry animals and gaudy birds, through a tangle of stuff and oriental knick-knacks – 'cushions, slippers, narghilehs, turbans, burnous, caftans, mats, parasols' – and ended up face down among the lower forms of nature.

For Blanc, there were only two ways to avoid the Fall: abandoning colour altogether or *controlling it*. Both had their risks. He is a little vague about the first option; at times, colour is 'essential' to painting, but in the same breath it might be only 'almost indispensable'. Elsewhere, he convinces himself that 'painters can sometimes dispense with colour,'

yet a little later on it is reinstated: 'Colour being that which especially distinguishes painting from the other arts, it is indispensable to the painter.' Blanc appears to have been genuinely uncertain about colour; it shifts from being essential to being dispensable, from being low in the order of nature and representation to being the very essence and uniqueness of painting as an art. But for the most part, Blanc accepted that colour cannot be willed away; the job therefore is to master it by learning its laws and harnessing its unpredictable power: '... let the colourist choose in the harmonies of colour those that seem to conform to his thought.'

Conform, subordinate, control: we are back with Adam and Eve, back in a universe populated entirely by unequal opposites: male and female, mind and heart, reason and emotion, order and disorder, absolute and relative, structure and appearance, depth and surface, high and low, occident and orient, line and colour . . . For example: 'Here we recognise the power of colour, and that its role is to tell us what agitates the heart, while drawing shows us what passes in the mind, a new proof . . . that drawing is the masculine side of art, colour the feminine side.' Or: 'As sentiment is multiple, while reason is one, so colour is a mobile, vague, intangible element, while form, on the contrary, is precise, limited, palpable and constant.' Or: '... colour, which speaks to the senses rather than to the mind' is 'more external, hence, more secondary'. Or: 'There is . . . in painting, an essential element which does not readily lend itself to emblematic expressions – that is, colour . . . the artist using colour will particularise what he seeks to generalise, and he will contradict his own grandeur.' Or: 'The predominance of colour at the expense of drawing is a usurpation of the relative over the absolute, of fleeting appearance over permanent form, of physical impression over the empire of the soul.'

Blanc inherited these opposites from an intimidating and ancient tradition of *disegno versus colore*: drawing versus colouring-in. When, in the art room at primary school, I was told to take a line for a walk and

then colour it in, I certainly wasn't told that the line I was being asked to draw was in fact the continuation of a much longer one which could be followed almost without interruption back to the philosophical art rooms of ancient Greece. Nor was I told that within this apparently harmless opposition between line and colour, many other oppositions were in fact coded and concealed, all of them far from innocent. As Jacqueline Lichtenstein shows in her brilliant study of painting and rhetoric, *The Eloquence of Color*, evidence of chromophobia in the West can be found as far back as Aristotle, for whom the suppression of colour was the price to be paid for bailing art out from a more general Platonic iconophobia. For Aristotle, the repository of thought in art was line. The rest was ornament, or worse. In his *Poetics*, he wrote: '... a random distribution of the most attractive colours would never yield as much pleasure as a definite image without colour.'³ It is from here that we inherited a hierarchical ordering within painting which in its polished form describes a descent from 'invention' through 'design' to 'chiaroscuro' and, finally, to 'colour'. But hang on a minute. Since when was 'random' associated with colour and 'definite' with drawing? Since when did drawing and colour become ciphers for order and chaos? Perhaps it doesn't matter: the prejudice is in place.

Since Aristotle's time, the discrimination against colour has taken a number of forms, some technical, some moral, some racial, some sexual, some social. As John Gage notes in his vast historical survey of colour theory, colour has regularly been linked with other better-documented sexual and racial phobias. As far back as Pliny, it was placed at the 'wrong' end of the opposition between the occidental and the oriental, the Attic and the Asian, in a belief that 'the rational traditions of western culture were under threat from insidious non-western sensuality.'⁴ In later times, the Academies of the West continued and consolidated this opposition. For Kant, colour could never participate in the grand schemes of the Beautiful or the Sublime. It was at best 'agreeable' and could add 'charm'

to a work of art, but it could not have any real bearing on aesthetic judgement. In a similar vein, Rousseau maintained that:

colours, nicely modulated, give the eye pleasure, but that pleasure is purely sensory. It is the drawing, the imitation that endows these colours with life and soul, it is the passions which they express that succeed in arousing our own, the objects which they represent that succeed in affecting us. Interest and sentiment do not depend on colours; the lines of a touching painting touch us in etching as well: remove them from the painting, and the colours will cease to have any effect.⁵

Likewise, Joshua Reynolds, founder of the Royal Academy:

Though it might be allowed that elaborate harmony of colouring, a brilliancy of tints, a soft and gradual transition from one to another, present to the eye, what a harmonious concert of music does to the ear, it must be remembered, that painting is not merely a gratification of the sight. Such excellence, though properly cultivated, where nothing higher than elegance is intended, is weak and unworthy of regard, when the work aspires to grandeur and sublimity.⁶

Or Bernard Berenson, English aesthete and classicist: 'It appears . . . as if form was the expression of a society where vitality and energy were severely controlled by mind, and as if colour was indulged in by communities where brain was subordinated to muscle. If these suppositions are true', he added with heavy irony, 'we may cherish the hope that a marvellous outburst of colour is ahead of us.'⁷

So it hadn't ended when many of the Academies collapsed under their own weight during the later nineteenth century. To this day, there remains a belief, often unspoken perhaps but equally often unquestioned, that seriousness in art and culture is a black-and-white issue, that depth

is measured only in shades of grey. Forms of chromophobia persist in a diverse range of art from more recent years – in varieties of Realism, for instance, with its unnatural fondness for brown, or in Conceptual art, which often made a fetish of black and white. And it is in much art criticism, the authors of which seem able to maintain an unbroken vow of silence on the subject of colour even when it is quite literally staring them in the face. Likewise, when Hollywood discovered colour, it was deemed suitable mainly for fantasies, musicals and period pieces; drama remained a largely monochrome issue. Then there is the question of architecture, which we have already touched upon. But this is to get ahead of the story . . .

One thing that becomes clear from Blanc's thesis is that colour is both secondary *and* dangerous; in fact, it is dangerous because it is secondary. Otherwise there would be no Fall. The minor is always the undoing of the major.

Where do we find the idea of the Fall in contemporary culture? One answer would be in the image of drugs – or drug culture – and the moral panic that surrounds it. The fall-from-grace-that-is-drugs is often represented in a way that is not unlike the descent into colour described by Blanc. Sensuous, intoxicating, unstable, impermanent; loss of control, loss of focus, loss of self . . . Now it turns out that there is a rather interesting relationship between drugs and colour, and it is not a recent invention. Rather, it too goes back to Antiquity, to Aristotle, who called colour a drug – *pharmakon* – and, before that, to the iconoclast Plato, for whom a painter was merely 'a grinder and mixer of multi-colour drugs'.⁸ The best part of two and a half millennia later, it appears that little has changed. During the 1960s, for example, drugs were commonly, and sometimes comically, associated not just with the distortion of form but with the intensification of colour. Think of those films – *Easy Rider* is the most obvious example – that attempted to convey the effects of dropping acid. Think of psychedelia; think of the album covers, the posters,

the lyrics; think, for example, of the Rolling Stones' *Her Satanic Majesty's Request* and of the song 'She Comes in Colours' (recently revived to advertise the hippy trippy brightly coloured iMac computers . . .). Today, the connection between colour and drugs seems a bit looser. Damien Hirst's *Spot Paintings* make at least a nominal connection between the two – if you accept his suggestion that their evenly spaced circles of colour can be read as schematic images of pharmaceutical pills.

There is a more interesting, if less plausible, semantic connection between colour and drugs. Ecstasy, as everyone knows, is the name given to a widely used psychotropic stimulant, but it is also a synonym for Roland Barthes' remarkable description of colour as 'a kind of bliss'. Bliss, *jouissance*, ecstasy. Barthes goes on: 'Colour . . . is a kind of bliss . . . like a closing eyelid, a tiny fainting spell.'⁹ A tiny fainting spell: a lapse, a descent, a Fall. Intoxication, loss of consciousness, loss of self. But here something else has happened: Barthes has given colour the same trajectory as Blanc did, and, like Blanc, he has overtly eroticized colour. Also like Blanc, he has given colour the power to overwhelm and annihilate. At the same time, however, he has also inverted Blanc's Old Testament foreboding. In Barthes' hands, chromophobia is turned into its opposite: a kind of chromophilia.

This turn, this description of colour as falling *into* a state of grace or something approaching it, is characteristic of other writing both on colour and about drugs. In *The Doors of Perception*, Aldous Huxley describes in detail the experience of taking mescaline. The first and most emphatic change he registers is in his experience of colour: 'Half an hour after swallowing the drug I became aware of a slow dance of golden lights. A little later there were sumptuous red surfaces swelling and expanding from bright nodes of energy that vibrated with a continuously changing, patterned life . . .'¹⁰ Looking around his study, his attention is held by a small vase containing three flowers, then by the books lining the walls:

Like the flowers . . . [the books] glowed, when I looked at them, with brighter colours, a profounder significance. Red books, like rubies; emerald books; books bound in white jade; books of agate, of aquamarine, of yellow topaz; lapis lazuli books whose colour was so intense, so intrinsically meaningful, that they seemed to be on the point of leaving the shelves to thrust themselves more insistently on my attention.

A little later, he notices an old chair in the garden: 'That chair . . . Where the shadows fell on the canvas upholstery, stripes of a deep but glowing indigo alternated with stripes of an incandescence so intensely bright that it was hard to believe that they could be made of anything but blue fire . . .' The flood of colour that Huxley describes becomes the basis for his speculations regarding the qualities of mescaline-coated consciousness. The transformation of everyday objects leads him at one point to note that 'today the percept had swallowed the concept.' Today, that is, was seeing rather than seeing-as, seeing as-if-for-the-first-time, the recovery of a lost innocence: 'I was seeing what Adam had seen on the morning of his creation – the miracle, moment by moment of naked existence.' Today, 'Visual impressions are greatly intensified and the eye recovers some of the perceptual innocence of childhood, when the sensum was not immediately and automatically subordinated to the concept . . .'

Adam was innocent. But the idea of innocence offered by Huxley would have been incomprehensible to Blanc, for whom Adam was, it seems, already imbued with the Idea; he was, at least in some sense, already rational, coherent, the image of the Father. His innocence, his purity, was, well, different. Huxley's Adam is innocent of concepts, innocent of self, and thus is **open to the unmediated flow of perception: he is immersed in colour which is Eden.** 'Mescaline', Huxley notes, 'raises all colours to a higher power and makes the percipient aware of innumerable fine shades of difference, to which, at ordinary times, he is completely blind.'

Its effect – its value – lies in its reversal of the order of things, the conventional hierarchies of thought:

It would seem that, for *Mind at Large*, the so-called secondary character of things is primary. Unlike Locke, it evidently feels that colours are more important, better worth attending to than masses, positions and dimensions. Like mescaline takers, many mystics perceive supernaturally brilliant colours, not only with the inward eye, but even in the objective world around them.

To take mescaline is to be caught in the intense gaze of colour as much as it is to gaze at a new-found intensity of colour. To be transfixed by the radiant glow of 'books like rubies, emerald books' – the same precious stones which, for Blanc, were the mute lower forms of nature – is, for Huxley, to be exulted, to achieve a state of grace, a state of Not-self.

The Not-self is other; the other is colour. Another example: the poet Joachim Gasquet reporting some remarks made by Cézanne about looking at painting:

Shut your eyes, wait, think of nothing. Now, open them . . . One sees nothing but a great coloured undulation. What then? An irradiation and glory of colour. This is what a picture should give us . . . an abyss in which the eye is lost, a secret germination, a coloured state of grace . . . Lose consciousness. Descend with the painter into the dim tangled roots of things, and rise again from them in colours, be steeped in the light of them.¹¹

An abyss; disorientation; loss of consciousness; descent. And resurrection; grace. (It is not entirely surprising that this passage was quoted by the psychoanalyst Marion Milner, for whom 'the dark possibilities of colour' were counterposed to the 'white light of consciousness'.) Cézanne's descent was also undertaken in the name of innocence, and in some respects his conception of colour is not so different from Huxley's. 'See

like a man who has just been born', the artist is reported to have said.¹² Cézanne, it has been argued, subscribed to the idea that a new-born child lives in a world of naïve vision where sensations are unmediated and uncorrupted by the 'veil of . . . interpretation'. The work of the painter was to observe nature as it was beneath this veil, to imagine the world as it was before it had been converted into a network of concepts and objects. This world, for Cézanne, was 'patches of colour'; thus 'to paint is to register one's sensations of colour.'

Eyes closed, drugged, unconscious: the rush of colour is also a drift into a dream state. Gustave Moreau: 'Note one thing well: you must think through colour, have imagination in it. If you don't have imagination, your colour will never be beautiful. Colour must be thought, imagined, dreamed . . .'¹³ Baudelaire: 'Just as a dream inhabits its own proper atmosphere, so a conception, become composition, needs to have its being in a setting of colour peculiar to itself.'¹⁴ Elsewhere, Baudelaire condemns those artists and critics for whom 'colour has no power to dream.' In his essay on the work of Delacroix, he cites a remark made by Liszt about the painter's love of Chopin's music: 'Delacroix . . . says that he loved to fall into deep reverie at the sound of that delicate and passionate music, which evokes a brightly coloured bird, hovering over the horrors of a bottomless pit.' It isn't hard to see why the image would have been so compelling to Baudelaire: the gentle fall into dream is brought on by the delicate passion of music; the music itself is a brightly coloured bird. The unexpected turn at the end of the image is what gives it its unique power. At the same time as the music heralds a fall into unconsciousness, it also holds off another, far greater fall, always present and never out of sight: the fall into a bottomless pit of unnameable horror. Music, colour, colour-music, the colours of Delacroix's painting – these are certainly 'enchanted', but they are also much more than that. They offer salvation from and simultaneously make us aware of the presence of unutterable terror. Such works may induce a state of grace, but this

state is always fragile and vulnerable. The dream is always on the edge of nightmare.

The theme of colour as a fall from grace – or a fall into grace – can be updated a little. For example: Wim Wenders's 1986–7 film *Wings of Desire*, in which the viewer is taken to and fro between two worlds: the realm of the spirits and angels, and the sensuous world of embodied beings. We know where we are only because the latter is shown in full colour, but the spirit world is shown in black and white. When the angel (played by Bruno Ganz) falls to earth as the result of another fall – into love – he lands with a thud. Dazed and amazed, he looks around the Berlin wasteland into which he has dropped. He feels a small cut on the back of his head and looks at the blood left on his hand. He approaches a passer-by:

'Is this red?'

'Yes.'

'And the pipes?'

'They're yellow.'

'And him there?' [pointing at some painted figures on the Berlin Wall]

'He's grey-blue.'

'Him?'

'He's orange . . . ochre.'

'Orange or ochre?'

'Ochre.'

'Red . . . Yellow . . . And him?'

'He's green.'

'And the bit above the eyes?'

'That's blue.'

The first questions the angel asks are the names of the colours he sees. His fall from grace is a fall into colour, with a thud. It is a fall from the disembodied all-observing spirit world into the world of the particular and the contingent, a world of sensuous existence, of hot and cold, of taste

and touch, but most of all it is a fall into a world of desire. It is a fall into a world of consciousness and self, or rather a fall from super-consciousness into individual consciousness, but it is a fall into self made with the explicit purpose of losing the self in desire.

There are other cinematic descents into colour from the dubious stability of black and white – among them Michael Powell's World War II fable *A Matter of Life and Death*, on which *Wings of Desire* was more than loosely based. Here, the world of spirits is again represented exclusively in black and white. 'We are starved of Technicolor up here' says a very camp French angel, half to the camera. But in this movie it is a man, not an angel – albeit a man with wings: a pilot – who falls to earth, and he falls not from a monochrome heaven but from a lurid, blazing hell in the shape of a disintegrating Lancaster bomber. He (David Niven) falls to earth but does not die, and he cheats death because he too has fallen in love. He falls from colour into colour, but this is different: the sky was night, fury and death; earth is clear sky, sunlight and warmth. Earth is good; earth is life and love, green hills and blue skies; earth is . . . England.

The colour world of England is not the same as that of Berlin, which is more harsh and uncertain and altogether less homely. England was at war (though it hardly showed); Berlin was at war with itself and its memories. These differences are contained in the colours and monochromes of the films, and in the transitions between the two. Sam Fuller's 1963 *Shock Corridor* also uses occasional colour scenes within an otherwise black-and-white film to represent a kind of internalized war. The film is an allegory of the psychoses lying beneath the surface of American postwar culture. The world is black and white. Colour occurs not as an angel or a man falls from the exulted (if bureaucratic and rather boring) world of the spirits into the palpable world of flesh and blood and love, but as patients in a secure mental institution lapse into delirium. The three short colour episodes in the film denote different psychotic episodes, points at which the patients suffer a loss of self. In the first, a deranged Korean War veteran – deranged

because he was brainwashed by the 'Commies' and couldn't deal with the harsh reality of Cold War America – relives his trauma in a series of grainy, colour-saturated home-movie glimpses of everyday life in Japan and South Korea. In the second, a young African-American man – unable to cope with the pressures and publicity of having been the first black person to enter a Southern university, and now living a fantasy life as a rabid Klansman – experiences his delirium through coloured ethnographic footage of an Amazonian tribal dance. In each of these episodes of stark otherness, the suddenness of the transition into colour comes as a shock; but while colour signifies the otherness of psychosis, the colour footage is footage of other cultures: South-east Asia and South America. The third colour episode concerns the main character in the film, an ambitious journalist who fakes mental illness to get admitted to the institution in order to investigate a murder. As he snoops around, he encounters the various allegorical in-patients and, little by little, begins to lose his own grip. Then, during a heavy storm, he loses it entirely. And he falls: first of all into an interior mental deluge, then into a colour deluge made up of random close-ups of teeming rapids and waterfalls. It's an extraordinary and disturbing scene. Although the colour section lasts no more than fifteen or twenty seconds, the combination of the imagery's force and unexpectedness is quite startling. The world of psychosis and that of colour are both and at once immensely powerful and entirely formless. They have no shape. They cannot be grasped or contained. They are terror.

And then there is *Ivan the Terrible*, Sergei Eisenstein's unfinished trilogy about the unification of Russia under Tsar Ivan. In *The Boyars' Plot*, the second of the two completed parts, most of the action takes place in the shadowy labyrinthine chambers of some medieval castle. As Ivan seeks to both unify Russia and consolidate his rule, just about everyone around him appears to be seeking the exact opposite. The atmosphere of treachery, conspiracy and paranoia is etched in a thin grey light and long black shadows. Until, that is, a great feast is organized by Ivan. At this

point, the film turns to livid reds and golds as the guests (which include most of the Tsar's enemies) drink, dance, sing and fall over. It is a moment of excess, intoxication and masquerade, and it is saturated with colour. As the party ends and the crowd moves to the cathedral to become a congregation, the colour is left behind. The conspirators' plot is exposed, and Ivan consolidates his power base. The final scene shows him on his throne: secure, intense and Terrible. And the colour returns.

There are several less terrifying falls into colour in the movies, although in these too, colour for the most part remains beyond the orderly and the rational, and thus remains dangerous and disruptive. There is, for example, the recent *Pleasantville*, about two full-colour American '90s teenagers sucked into a monochrome '50s sitcom. But one film stands out from all the others: the extraordinary, wonderful *The Wizard of Oz*. Made in 1939, this movie's great set piece is a spectacular descent into brilliant Technicolor. Having been scooped up by the tornado, Dorothy's house, together with Dorothy herself (Judy Garland) and Toto, falls out of the sky into Munchkinland, a fall that has a direct impact on the narrative and an especially direct impact on the Wicked Witch of the East. Dorothy's own drift into colour is, as I was devastated to discover when I first saw the film, revealed to be 'only' a dream-state, a result of her fall into unconsciousness. So Dorothy falls, twice. And she does so in a way that Baudelaire, Cézanne and Barthes would have understood. As she lands, she is greeted by the saccharine Glinda, aka the Good Witch of the North, who instructs the Munchkins to:

... meet the young lady who fell from a star.
She fell from the sky,
She fell very far,
And Kansas she says is the name of the star ...
When she fell out of Kansas,
A miracle occurred.

Dorothy falls, and also finds herself among Charles Blanc's lower strata of nature: the Emerald City, the Yellow Brick Road and, of course, the Ruby Slippers. And there is talk of a rainbow (but not of God or Newton). Then there is the Horse of a Different Colour You've Heard Tell About. 'Toto, I have a feeling we are not in Kansas anymore', says Dorothy, observantly, to her dog. No, Kansas was *grey*, so grey that it was ur-grey. As Salman Rushdie notes in his unapologetically Totophobic account of the film and L. Frank Baum's book,

... everything is grey as far as the eye can see – the prairie is grey and so is the house in which Dorothy lives. As for Auntie Em and Uncle Henry: 'The sun and the wind ... had taken the sparkle from her eyes and left them a sober grey; they had taken the red from her cheeks and lips, and they were grey also. She was thin and gaunt, and never smiled now.' Whereas 'Uncle Henry never laughed. He was grey also, from his long beard to his rough boots.' The sky? It was 'even greyer than usual'.¹⁵

And when Dorothy's release from greyness arrives, it is itself a maelstrom of grey: 'It is out of this greyness – the gathering, cumulative greyness of that bleak world – that calamity comes. The tornado is the greyness gathered together and whirled about and unleashed, so to speak, against itself.'

For Rushdie, we are not so much caught up in a Fall as in an uprooting and displacement into colour. Within the yearning in Judy Garland's voice

is the human dream of *leaving*, a dream at least as powerful as its countervailing dream of roots. At the heart of *The Wizard of Oz* is a great tension between these two dreams ... In its most potent emotional moment, this is unarguably a film about the joys of going away, of leaving the greyness and entering the colour, of making a new life in the 'place where there isn't any trouble'. 'Over the Rainbow' is, or ought to be, the anthem of all

the world's migrants, all those who go in search of the place where 'the dreams that you dare to dream really do come true'. It is a celebration of Escape, a great paean to the Uprooted Self, a hymn – the hymn – to elsewhere.

Falling or leaving: these two metaphors of colour are closely related. Their terminologies – of dreams, of joys, of uprootings or undoings of self – remain more or less the same. More than that, perhaps, the descent into colour often involves lateral as well as vertical displacement; it means being blown sideways at the same time as falling downwards. After all, Blanc's 'impassioned colourist' falls from the rational Academies of the West into the market stalls and bestiaries of the East, and numerous other accounts, chromophobic and chromophilic alike, describe something similar. In the end, Dorothy has to return from colour – to Home, Family, Childhood, Kansas and Grey. 'East, West, Home is Best.' So she chants (in the book), albeit without a chance of convincing anyone who has taken a moment to compare the land of Oz with the grey-on-grey of Kansas, as Rushdie points out. Perhaps the implications of not returning, of not recovering from the Fall into colour, were too radical for Hollywood to contemplate.

And not just for Hollywood. There is a curious parallel between the dream-journey of Dorothy and travels described by Charles-Edouard Jeanneret, aka the architect Le Corbusier, in his *Journey to the East*. Coming from the man who would later say that colour was 'suited to simple races, peasants and savages', it's surprising to find that his first published writing is in fact an ecstatic, intoxicated, confusing, delirious, sensuous plunge into colour. Written in 1911 as a series of newspaper articles and only published in 1965 as *Le Voyage d'Orient*, this is a story of leaving and of entering colour, a story of returning and a story told as if it were a dream.

Near the beginning of the narrative, Le Corbusier describes in passing a journey by boat which is vaguely reminiscent in its monochromatic

starkness of Conrad's journey down the Thames: 'The great white boat had left Budapest at nightfall. Helped by the strong current, it made its way down the immense watercourse that marked out with a black path to the right and the left the two distant riverbanks . . .'¹⁶ This imagery makes the traveller's entry into colour all the more dramatic. Once in his Orient, almost every description becomes tinted; almost every observation becomes a poem to colour. Sometimes, this appears quite innocent: 'There is in the sky, before the night hardens things, a watershed of emerald green and indigo blue.' But more often, in the intense daylight, the descriptions of colours, objects, architecture and people begin to blur, spill or dissolve into each other as if their limits had been lost in a haze of sexual intensity:

You recognise these joys: to feel the generous belly of a vase, to caress its slender neck, and then to explore the subtleties of its contours. To thrust your hands into the deepest part of your pockets and, with eyes half closed, to give way to the slow intoxication of the fantastic glazes, the bursts of yellows, the velvet tones of the blues . . .

A little later on: 'Everything is smothered in flowers, and under these ephemeral bouquets, other ephemeral bouquets . . . young girls, beautiful women, smiling, somewhat depraved, perhaps a little inflamed by their desires. Gentlemen in black play second fiddle in this orchestra of colours . . .' For Le Corbusier, the Orient becomes an 'explosion of colours', and inevitably 'The eye becomes confused, a little perturbed by this kaleidoscopic cinema where dance the most dizzying combinations of colours.' His preferred description for this undifferentiated assault on the senses is a dreamy 'intoxication': 'The colour . . . exists for the caress and intoxication of the eye'; 'the intoxicating embrace of the moist evening, wafting voluptuously from the mountainside'; 'in the drowsiness of everything, in the vague intoxication of feeling space collapse and expand', You are left helpless: 'You are intoxicated; you cannot react at all.'

Once again, the drug of colour begins to weigh heavily on our eyes; we become drowsy; we begin to lose consciousness as we fall under its narcotic spell; we lose focus; we lose our sense of the distinctions between things; we descend into delirium; we lose ourselves in colour as colour frees itself from the grip of objects and floods over our scrambled senses; we drown in the sexual heat of colour . . . And the Technicolor dream continues:

The exterior is as red as iron reaching melting point. There it is, swollen, supple, and so close to the earth on its level shoreline, its pleasing oval forms radiant with clarity like an Egyptian alabaster urn carrying a burning lamp. The urn is strangely protective this evening, as if in mystical abandon outright gifts are torn away from living flesh and offered in painful and bloody oblations to the Beyond, to the Other, to Whomever, to any Other than the self. The overwhelming delirium of this moment and place.

We have no sense of direction. We drift. Hallucination follows hallucination. We are in confusion: ' . . . we others from the centre of civilisation, are savages . . .' And then, as if by chance – although chance has no particular meaning in our dreamwork – we discover a destination, an awakening, a recovery which puts our dream into an envelope of rationality, like it did for poor Dorothy. But unlike Dorothy's, Le Corbusier's awakening occurs *within* the dream. His dream-awakening dream is the Acropolis: 'To see the Acropolis is a dream one treasures without even dreaming to realise it.' Yet, realized, this dream is no less a dream. Stuck in Athens for weeks because of a cholera outbreak, Le Corbusier reflects: 'Days and weeks passed in this dream and nightmare, in a bright morning, through an intoxicating noon, until evening . . .' He is entranced, captive to its absolute spell: 'Nothing existed but the temple'; it was 'an ineluctable presence'; 'the Parthenon, the undeniable Master'; 'Admiration, adoration, and then annihilation'.

Annihilation? Of what? There could be several answers to this. On

the one hand, Le Corbusier is surrounded by a cholera epidemic; he sees the dead being taken from their houses; perhaps he sees his own death in the dead around him. But I suspect he had a bigger death in mind: self-annihilation in the face of the incomprehensible sublime force that was the Acropolis, and with it the annihilation of all that came before this overwhelming experience: annihilation of the Orient and everything that was the dream-journey that preceded and led to this moment of revelation; annihilation of confusion; annihilation, perhaps, of desire. For once he had seen the Acropolis, Le Corbusier immediately decided that he had no further need of the East; the rest of his journey (not described in the book) would be through Italy and back to France: 'I will see neither the Mosque of Omar nor the pyramids. And yet I write with eyes that have seen the Acropolis, and I will leave with joy. Oh! Light! Marbles! Monochromy!

East, West, Home is Best.

What colour was the Parthenon in Le Corbusier's dream? Not, as one might expect from his later writings, a magnificent, triumphant, all-embracing white. Or not immediately. Rather, in his description of the great temple, next to the form, volume, mass and space of the architecture, colour begins to *give way*; colour no longer appears to be such a significant force; it no longer has the same power to intoxicate; it no longer has quite the same intensity. His description becomes more muted: 'I shall give this entire account an ochre cast;' the marbles adopt the colour of the landscape and 'seem as reddish-brown as terra-cotta'. And yet in this *reflected* colour, there is still something awesome: 'Never in my life have I experienced the subtleties of such monochromy.' Only later, during a storm, does the Parthenon whiten: 'I saw through the large drops of rain the hill becoming suddenly white and the temple sparkle like a diadem against the ink-black Hymettus and the Pentilicus ravaged by downpours.' Once again, the Parthenon absorbs and reflects the colours of its surroundings and atmosphere, but it does not seem to have colour of its own; the Parthenon is somehow beyond colour.

In Le Corbusier's earlier evocations, just about every object had brilliant local colour, and these intense hues were often intermingled with strong blacks and dazzling whites. White was the precondition for colour; colour was intensified by its proximity to white; there was no sense of opposition between the two; they were co-dependent and co-operative. That was certainly part of the brilliance of Le Corbusier's early writing on colour. The *separation* of whiteness and colour would come later. Le Corbusier in 1925 in *The Decorative Art of Today*:

What shimmering silks, what fancy, glittering marbles, what opulent bronzes and golds! What fashionable blacks, what striking vermilions, what silver lamés from Byzantium and the Orient! Enough. Such stuff founders in a narcotic haze. Let's have done with it . . . It is time to crusade for whitewash and Diogenes.¹⁷

The architect was done with drugs. He had been off them since at least 1920; the Great War had seen to that. In their place: Order. Reason. Purity. Truth. Architecture. Whitewash.

In his evangelical *Rappel à l'ordre* tirade against 'the flourish, the stain, the distracting din of colours and ornaments', and in his campaign for a world shaped by the New Spirit and a new architecture, Le Corbusier aligned himself with the earlier but equally evangelical Adolf Loos: 'We have gone beyond ornament, we have achieved plain, undecorated simplicity. Behold, the time is at hand, fulfilment awaits us. Soon the streets of the city will shine like white walls! Like Zion, the Holy City, Heaven's capital. The fulfilment will be ours.'¹⁸ Heaven is white; that which gets closest to God – the Parthenon, the Idea, Purity, Cleanliness – also sheds its colour. But for Le Corbusier, ornament, clutter, glitter and colour were not so much signs of primitive 'degeneracy', as they had been for Loos, as they were the particularly modern form of degeneration that we now call kitsch. The difference is important, because at no time did Le Corbusier

attack what he saw as the authentic 'simplicity' of the folk cultures of the past, cultures which, he conceded, had their own whiteness: 'Whitewash has been associated with human habitation since the birth of mankind.' The problem was, rather, modern industrialized ornamentation and colouring, a problem which, for Le Corbusier, reeked of confusion, disorder, dishonesty, imbalance, subservience, narcosis and dirt.

Thus, under the chapter title 'A Coat of Whitewash: The Law of Ripolin' (a phrase that is constantly repeated and usually capitalized):

we would perform a moral act: *to love purity!*

we would improve our condition: *to have the power of judgement!*

An act which leads to the joy of life: the pursuit of perfection.

Imagine the results of the Law of Ripolin. Every citizen is required to replace his hangings, his damasks, his wall-papers, his stencils, with a plain coat of white ripolin. *His home* is made clean. There are no more dirty, dark corners. *Everything is shown as it is*. Then comes *inner* cleanness, for the course adopted leads to refusal to allow anything which is not correct, authorised, intended, desired, thought-out: no action before thought. When you are surrounded with shadows and dark corners you are at home only as far as the hazy edges of the darkness your eyes cannot penetrate. You are not master in your own house. Once you have put ripolin on your walls you will be *master of your own house*.

White is clean, clear, healthy, moral, rational, masterful . . . White, it seems, was everywhere, at least in the minds of Le Corbusier's contemporaries and followers. Theo van Doesburg, for example:

WHITE is the spiritual colour of our times, the clearness which directs all our actions. It is neither grey white nor ivory white, but pure white.

WHITE is the colour of modern times, the colour which

dissipates a whole era; our era is one of perfection, purity and certitude.

WHITE It includes everything.

We have superseded both the 'brown' of decadence and classicism and the 'blue' of divisionism, the cult of the blue sky, the gods with green beards and the spectrum.

WHITE pure white.¹⁹

In Le Corbusier's intoxicated rationalism, the rhetoric of order, purity and truth is inscribed in a pure, blinding white surface. So blinding, in fact, that the discourse of modern architecture has almost entirely failed to notice that most of his buildings are actually *coloured*. This marvellous paradox in the rhetoric of whiteness has been carefully picked apart by Mark Wigley, who has observed, for example, that Le Corbusier's manifesto building, the Pavillon de l'Esprit Nouveau, built in the same year as *The Decorative Arts of Today* was written, was actually painted in ten different colours: white, black, light grey, dark grey, yellow ochre, pale yellow ochre, burnt sienna, dark burnt sienna and light blue. Wigley has noted that Le Corbusier only ever made one white building. In spite of this, he has argued, there is 'a self-imposed blindness . . . shared by almost all of the dominant historiographies . . . Colour is detached from the master narrative' of architecture. Once again, it appears that we are not dealing with something as simple as white things and white surfaces, with white as an empirically verifiable fact or as a colour. Rather, we are in the realm of *whiteness*. White as myth, as an aesthetic fantasy, a fantasy so strong that it summons up negative hallucinations, so intense that it produces a blindness to colour, even when colour is literally in front of your face.

In *Purism*, a manifesto for painting co-written in 1920 with Amédée Ozenfant, Le Corbusier writes of painting as a kind of architecture: 'A painting is an association of purified, related, and architected elements;' 'Painting is a question of architecture.'²⁰ In later writing, he often describes

architecture as a kind of painting, a process that follows the academic logic from 'composition', through 'contour', to 'light and shade'. If this is the case, if architecture is a kind of painting as much as painting is a kind of architecture, then Le Corbusier, like Blanc before him, was forced by his own logic to recognize the presence of colour in a work. This he did, and in a very similar way to Blanc. *Purism* is ultra-rationalist; the text is speckled with terms such as 'logic', 'order', 'control', 'constant', 'certainty', 'severe', 'system', 'fixed', 'universal', 'mathematical' and so on. But, as the authors acknowledge, 'when one says painting, inevitably he says colour.' And in the Purist universe, colour is a problem, a 'perilous agent'; it has the 'properties of shock' and a 'formidable fatality'; it often 'destroys or disorganises' an art which aims to address itself 'to the elevated faculties of the mind'.

Colour, then, must be controlled. It must be ordered and classified; a hierarchy must be established. And so it is. Le Corbusier and Ozenfant come up with three 'scales' for colour: the 'major scale', the 'dynamic scale' and the 'transitional scale'. The major scale is made up of 'ochre yellows, reds, earths, white, black, ultramarine blue and . . . certain of their derivatives'. This scale is 'strong' and 'stable'; it gives 'unity' and 'balance'; these colours are 'constructive' and are employed 'in all the great periods'. And they are also almost exactly the colours employed by Le Corbusier in his 1925 Pavilion. The dynamic scale is made up of 'disturbing elements': citron yellow, oranges, vermilion and other 'animated', 'agitated' colours; the transitional scale, 'the madders, emerald green, and all the lakes', are simply 'not of construction'. A painting 'cannot be made without colour', but the painter is advised to stick with the major scale; therein lies the tradition of great painting. The further one drifts down the scale of colour, the further one drifts from the 'architectural aesthetic' to the 'aesthetic of printed cloth' – that is, the further one drifts from art to mere decoration. This, in the end, was Cézanne's 'error', for he 'accepted without examination the attractive offer of the colour-vendor, in a period marked by a fad for colour-chemistry, a science with no possible effect on great

painting'. Such 'sensory jublations of the paint tube' were best left 'to the clothes-dyers', because while painting could not be made without colour, 'in a true and durable plastic work, it is *form* which comes first and everything else should be subordinated to it.' The 'architectural' aesthetic of painting was concerned with the unified representation of volumes (whereas the clothes-dyers' aesthetic was limited to flat patterns); colours of the 'major scale' were strong and stable insofar as they served and emphasized this representation of volume. The same logic applies to the 'painterly' aesthetic of Le Corbusier's architecture: the function of coloured planes in a space is to render the volumes and spaces more balanced and coherent, more exact and, in the end, more white: 'To tell the truth, my house does not seem white unless I have disposed the active forces of colours and values in the appropriate places.' White must be whiter than white, and to achieve that, colour must be added.

It doesn't much matter whether this hierarchy of colours is coherent, any more than it matters whether Blanc's cosmology of colour makes any real sense. What matters is the show of force: the rhetorical subordination of colour to the rule of line and the higher concerns of the mind. No longer intoxicating, narcotic or orgasmic, colour is learned, ordered, subordinated and tamed. Broken.

Take a walk with a digital camera. Find interesting things to photograph but zoom in while taking the photo until the image is a single color from that interesting thing. Upload them to a computer and email them to friends and family. Tell them this is an interesting thing you found.



Plata 208

Jerônimo de Mangueira covered with P 08
Parangolé Cape 05 "Mangueira" (1965), artist
Antonio Manuel with P 01 *Parangolé Cape 04*
(1964), and Robertinho clad in P 11 *Parangolé*
Cape 07 "Sexo, Violência..." (1966) at Aterro
do Flamengo, Rio de Janeiro, 1966.

AHO/PHO, RJ

Photo: Claudio Oiticica

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The Rainbow and Cartesian Wonder

The Aesthetics of the Rainbow

This first sketch of the experience of wonder now makes it possible to show in detail why the rainbow is a central instance of the aesthetics of wonder. Why it is also central in that zone where science touches or overlaps with aesthetics is a question that still has to be postponed. As I will attempt to show later, wonder does not enter within science only in the elegance or beauty of results, but far more essentially in the detailed psychology of how discovery happens, the step-by-step practice of thought. Before reaching this poetics of thought, for which the rainbow will also provide a central instance, I want to work out the plausibility of the rainbow as an equally central instance within the aesthetics of wonder.

In the aesthetics of experience the rainbow stands alongside many other candidates for wonder, for example, the night sky filled with stars. The stars, like Wordsworth's description of what he called "the world," are "too much with us." They return night after night, the same in their slow dance of variation, returning seasonally and in larger cycles to the same configurations. Emerson pointed out, "If the stars should appear one night in a thousand years, how would men believe and adore; and preserve for many generations the remem-

branch of the city of God which had been shown."¹ We have or can have too much experience of the stars. Scientifically, the stars led at once to the study of repetition, not uniqueness. We could say that the patterns of the stars led to the very idea of scientific lawfulness: regularity and, therefore, the predictability of future states.

By contrast, the rainbow is, in every individual life, a rare experience, and it is always a sudden and an unexpected one. Most people know that a rainbow has to do with rain, with the sun, and with a sky partially darkened by clouds against which the rainbow appears. The rain showers must be local. If the sky were completely cloudy the sun could not be out, providing the light source. Some know that no rainbow can occur when the sun is above a certain height in the sky, or that rainbows are most likely in late afternoon or in the morning when the sun is relatively low. Most realize that the rainbow is opposite the sun and that to see it we stand with our backs to the sun facing the semicircle of bands of color, always red in the outer band, green in the middle, blue in the inner band.

This knowledge seldom lets us anticipate the experience. As a result, each experience of the rainbow is sudden, unexpected and widely separated in time from our last most recent instance. While the rainbow is rare, it is still common enough to have been named, thought about, and to have entered most people's individual experience as an experience. Objects that are too rarely seen never stabilize themselves in human language at all with the privilege of a name, or, worse, their very reality is disputed since most people have never seen them even once. Aristotle, for example, points out that there are very rare instances of moon rainbows, too rare for us to have an exact term or name for these white, ghostlike objects. Aristotle claimed that there could not be more than two occurrences of moon rainbows in fifty years. In his classic history of the scientific explanation of the rainbow, Carl Boyer points out why these are so rare.

For one thing, the large majority of local showers, over land areas where most people live, occur in the summer afternoon when the moon has no chance to produce a bow. Then, too, the full moon would appear to the east of the observer during the early hours of the evening, whereas the prevailing winds in many regions are from the west and

hence make the eastern sky too cloudy for a bow. When one realizes that lunar rainbows occur about a hundredth as frequently as solar rainbows, and if one recollects that fully three-fourths of these will be missed through sleep, he will better appreciate the rarity of observations of lunar bows.²

The lunar bow is at the other extreme from the too often seen, too predictable night sky with stars. It is too rarely seen to have ever entered most people's experience even in an eighty-year lifetime. Experiences at this extreme are also ruled out for the aesthetics of wonder. The white lunar bow also falls short in lacking the striking beauty and differentiation of the red-green-blue bands of the rainbow. More a white smear across a sky, which in any case has the constant appearance of white in its clouds, the lunar rainbow cannot strike the eye and mind. The display of color in nature, as with brightly colored birds and flowers, has to do with attraction, most often with the sexual process itself. Color makes a claim for attention, a claim for love in its most elementary form as a combination of attraction and excitement. The rainbow strikes us, in a way that moon rainbows never could, even if they were common enough to be rare, just because it shares in the erotics of color, with color's reproductive force within nature.

The solar rainbow, in addition to the pleasures of color, of regularity, and of geometric form (the semicircle), has the great advantage of lasting only for a brief time. The precious transience that is one decisive part of most ideas of the experience of beauty, whether in Japan or in the Occident from the Greeks through the Renaissance to Romanticism, has its perfect instance in the rainbow, which lasts a few minutes only, long enough to be noticed and enjoyed, never so long as to outstay its welcome, so that, bored, we move on to look at something else. The sun, which hurts our eyes when we look directly at it, makes clear just how comfortable the rainbow's amount of light is for the capacities of human sight. The sun, unlike the rainbow, often hangs around the sky for twelve or fourteen hours at a time, too long to invite, reward, and then conclude the temporal side of what we call "having an experience."

Shorter-lived than flowers or the beauty of youth, those two pri-

many examples of the relation of beauty to time, the rainbow localizes in its sudden disappearance, just as in its rare and unexpected arrival, the basic fact that beauty visits, never stays. Iris is the messenger of the gods. Insofar as wonder maps out the nature of experience itself, the vanishing no less than the unanticipated and sudden arrival of the rainbow mark out the just-long-enough of a time for one and only one experience.

Since beauty for the Greeks was mathematical, or to put it more strongly, since the geometrical and the proportional were the meeting point of aesthetics and science, as Pythagoras' work on harmony and proportion in music shows, the mystery of the arc of the rainbow, its half circle in a sky where clouds often appear in tatters, in all shapes and outlines, was, intellectually, the first of its qualities. The arc made the rainbow susceptible to geometry, and it was by means of geometrical reasoning that from Aristotle to Descartes and Newton, the rainbow was explained. Just as the rainbow drew and held attention, it seemed, in the geometrical regularity of its shape, to point out the path by which it could be understood. It solicited not only attention and interest, but the particular interest of those skilled in geometry.

Just as important an appeal to philosophy and thought as its semi-circular shape was the fact that the rainbow was a phenomenon of light rather than of matter. This made it unique among the objects of beauty, noble in a way that the material beauty of flowers or of human faces could never be.

Finally, and most remarkably of all, from Aristotle on it was known that the rainbow involved subjectivity in a unique way. We each see the same sun, even if we stand on different hilltops. At night an observer in Boston and one in Havana who look into the sky each see the same stars in Orion's belt. But because the appearance of the rainbow is only possible by means of reflection, the angle between the observer, the sun, and the water droplets that reflect (and refract) the rays of light coming from the sun must be fixed for each observer. Two viewers see two different rainbows. A certain spot of red, for each of them, must come from a different drop of water, just that drop that stands in the right angular position between the observer and the sun. Each person's rainbow, like his or her reflection in a pool of water, is uniquely determined by the point where he or she stands, by the angle

between eye, raindrop, and sun. If I try to approach the rainbow it moves further on.

Roger Bacon distinguished the real colors produced by light passing through a crystal and the rainbow: "The observer alone produces the bow, nor is there anything present except reflection. In the case of the crystal, however, there is a natural cause, namely, the ray and the corrugated stone, which has great diversity of surface, so that according to the angle at which the light falls a diversity of colors result. And viewing them does [not] cause the colours to be present here, for there is colour before it is seen here, and it is seen by different people in the same place. But in the case of the bow the phenomenon is the result of vision, and therefore can have no reality but mere appearance."³ The great writer on optics Vitello pointed out the simple experiment of closing one eye and then the other while watching a small rainbow nearby in a spray of water. The rainbow changes its position depending on which eye is open. With this ingenious experiment we are able to simulate the experience of two different observers of the larger rainbow in the sky.

The rainbow that I see is like the horizon line, a mathematical artifact within experience. One consequence of this is that without human observers (or animal observers whose eyes work roughly similar to human eyes), there are no rainbows. They are part of the human world. On an uninhabited planet there would continue to be sun and rain, stars, and snow, but there would be no rainbow and no horizon. The horizon, a feature of experience which is always there, reminds us that the fate of the ordinary, no matter how striking once we are able to reflect on it, is to remain in the shadow of whatever is rare and sudden in experience, for example, the rainbow. In its requirement of a human observer to exist at all, rainbows and horizon lines are closer to music or geometry: had there been no human world there never would have been any such thing.

Noah's Rainbow and Religious Intelligibility

Taken together, the many characteristics of the rainbow described to this point make it clear why the rainbow could be taken as an epitome of an aesthetic experience, and more generally, as one unusually clear

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example of what we mean by "having an experience" at all. It is not clear why such an experience would elicit thought, a search for explanations and causes; that is, why it would elicit science rather than a stable self-contained delight.

Before I reach the poetics of thought, one alternative has to be mentioned that has in common with science a way of passing beyond the sensory or aesthetic experience, beyond the pleasure in the presence of the object of wonder. In the Bible, the rainbow is explained in the style of classic mythology by its origin, why it came to be there, after, presumably, a long period (antediluvian) when it did not exist. In the Bible the rainbow is placed in the sky by God, after the flood, as a sign—that is, as a token or reminder—of his promise never again to destroy the earth with water. "God gave Noah the rainbow sign. No more water, the fire next time," as the hymn puts it.

Mythological explanation narrativizes, or historicizes, the object to tell us three things about it: when it first came to exist (its genesis), who put it there, and why. This explanation turns it into a sign. It has passed from being an aesthetic object to being a meaningful object, a reminder. In looking at it at every later moment we are meant to think of something else (God's promise and God's wrath, man's sins, the one catastrophe that has been excluded). It is important to notice that this sign explanation tells us nothing about the sensory details of the rainbow, its colors, size, location in the sky, why double rainbows sometimes appear, what rainbows have to do with the height of the sun. The simple fact addressed is the connection of the rainbow to rain, to the end of a local shower. Implicitly, this explanation shows that what is being satisfied in this explanation is our fear, whenever rain starts, that it will never stop. The rainbow is met with relief in the collapse of a fear, which the story of God's promise fixes permanently into perception itself. Every rain as it starts brings on the imagination that it will go on and on, fill the rivers, cover the land, destroy everything.

Only one detail, the fact of rain, seen from the relief that the rain is a "local shower," which it must be for the sun to be out at the same time, has been brought to our attention to the exclusion of all other facts. This is the intellectual style of a world of fear, with its epistemo-

logical companion, fixed attention or obsession. The goal of the story (God-Noah-the flood-the rainbow-the promise) is to force the mind to pass as rapidly as possible from the aesthetic state to the state of memory (of this story, of human sinfulness). The essence of the aesthetic state of wonder is the play of the mind over the details of the object itself. Aesthetics is part of the mobility of attention, interest, and delight. Its lingering over the widest range of details so as to prolong its pleasurable contact with the object is one clue to the connection of wonder to science. In the attention brought about by wonder, the capacity to notice the actual details of the object is a strategy on the part of pleasure that seeks to last as long as possible. The substitution of fear and relief, the world of signs and meanings, just where aesthetic delight seems most spontaneously elicited, makes clear the connection of fear to memory and to a kind of obsessive, fixed focus of attention.

The religious meaning connected to the story of Noah, the flood, and God that leaps into the well-trained mind, distracts wonder, or to say it more strongly, preempts the possibility of wonder. The fear concealed within this story is not the fear of another flood, but the fear of wonder. The story is not accidentally attached to just this or that, it is positioned like a filter across just that experience that would elicit a lingering and free play of the mind, a delight and interest, a curiosity—in short, a combination of passion and energy, intellectual alertness and pleasure in the unknown that would itself lead on to science. The religious system of explanation is a technique in which beauty is wounded by meaning so that the work of wonder can never begin. To speak this way implies a deep hostility between narrative and aesthetic mobility and between meaning, in so far as meaning immobilizes attention, and aesthetic wonder and the exploratory curiosity that it sponsors.

fear of wonder

From Wonder to Thought

What is made clear in the religious need to put this barrier across the path of wonder is the clear recognition, even within the religious system at war with this process, that rare objects of this kind, that lie

at the heart of having an experience, elicit from us an activity. The aesthetic state is, only by a modern error, taken to be a passive one, a state of spectatorship rather than action. The activity is, of course, intellectual. More precisely, the aesthetic state as seen in the experience of wonder is the clearest miniature example of the details of thought itself, and this fact was recognized, as I will show in a number of examples, from the time of Plato to that of Descartes.

One important feature that follows from the aesthetic is that we do not have to seek out the things that we ought to think about scientifically. They strike us, as the stars do. They call attention to themselves against a background of things that do not spontaneously, on their own, call attention to themselves. This act of striking us makes up the figure-ground relation itself, as an active fact. The sudden appearance of the rainbow, its rareness, its beauty are all part of this initial act of striking us, trapping and holding our attention by means of beauty and the unwilling response of wonder. The "Ah!" of wonder is unreflective and immediate. It comes from us almost fast enough to say that it, too, surprises us. We learn a second later that we are already in the state of wonder. In this, wonder is like the other central passions—anger, fear, and grief—in that it involves a discovery about the limits of the will within experience, a location where we can no longer identify ourselves completely with our powers of choice, action, self-direction, and yet these territories of experience outside the will are intimately ourselves, uniquely determined, personal. Wonder begins with something imposed on us for thought.

The drive within wonder toward curiosity, questioning, and the search for explanation seems to involve no less than the religious move toward sign, history, memory, and meaning, a move away from the aesthetic experience itself, a passage from wonder to thinking. We know that thinking involves hard work, frustration, trial and error. It takes us through many moods of hope and impatience, disappointment, and even anger at the weakness of our powers of thought. Such feelings are not at all the simple continuation of the feeling of wonder. If wonder gives way to thought, does it stimulate in its delight in something only an aftermath of melancholy and hard work that are the more normal moods of thought? Does wonder inaugurate

thought only to find itself displaced by radically different, nonaesthetic, dispassionate forms of activity? [In other words, is science no different from religion in kidnapping the energy of wonder for an alien use and, in the end, even a use hostile to the energies of wonder itself?] *potential violence toward wonder*

What I will try to show in the next sections is that the passage from wonder to thought sets off a chain of experience built on ever repeated, small-scale repetitions of the experience of wonder. The first global moment of wonder is relocated, or better yet, reactivated, kept alive at every step within the process of thought itself. It is not the stimulus to thought, but the very core of energy that makes up each moment of thought. It is here, by means of Descartes and Plato, that we can see what is meant by the phrase "Philosophy begins in wonder." I will try to expand the saying to read: "Philosophy begins in wonder, continues on at every moment by means of wonder, and ends with explanation that produces, when first heard, a new and equally powerful experience of wonder to that with which it began." Wonder, in this sense, we can call the poetics of thought.

Descartes and the Scientific Passion of Wonder

The work of Descartes between 1630 and 1645 could stand as the unfolding of the remark of Socrates to Theaetetus: "This feeling of wonder shows that you are a philosopher, since wonder is the only beginning of philosophy, and he who said that Iris was the child of Thaumas made a good genealogy."⁴ In these fifteen years that coincide with the condemnation of Galileo by the Inquisition and the attack on the Copernican system, Descartes made three Copernican revolutions of his own, overthrowing, as he claimed, all that had been done before. First, in his *Discourse on Method*, he wrote the key work that put an end to scholastic discussion and to the use of authorities like Aristotle or Aquinas within argument. Descartes begins modern philosophy by describing a method for arriving at clear and distinct ideas, arriving, that is, at certainty. The Cartesian method aims to unify science and philosophy by means of an exacting discipline of the mind in its approach to small steps of thought. It is in asking what

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exactly one and only one step of thought might be and how we might come to train ourselves to recognize the feeling of certainty as we complete each step that Descartes made a remarkable proposal in what we could call the psychology of discovery.

Second, in his treatise on the rainbow that was attached to his *Discourse on Method* he provided, as he wrote, a specimen or sample (*échantillon*) of that method. Descartes's solution to the mystery of the rainbow overthrew the Aristotelian account and gave him his one genuine experimental contribution to science. His remains the standard textbook explanation to this day of most of the rainbow's features. Descartes singled out the short work on the rainbow because, as he wrote to his correspondent Père Vatier, in all of the other treatises attached to the *Discourse* he had to follow a sequence for exposition that was different from the sequence of discovery.⁵ Only with the rainbow was there a true specimen of the method itself.

Descartes's third Copernican revolution occurred in 1645 in his final published book, *Les passions de l'âme*, where he grandly announced that all other writers before him had reduced the soul to two primary passions, anger and desire, and that he would now reground the order and importance of the passions. What Descartes reacts against is a scheme of the passions as the scholastic tradition would have presented it. In Aquinas, for example, each of the twelve primary passions belongs to one of two groups, the irascible or the concupiscent; the template is either that of anger or of desire. The Scholastics themselves reach back to Plato in this and to the tradition of Stoicism. Plato had divided the soul into three parts: the intellect, the desires, and what he called the *thumos*, the angry or spirited part of the soul. The passions themselves make up, in all their variety, this third part of the soul, the *thumos*, and they are seen and imagined by means of what we could call the template of anger. The details of the passion of anger are taken as a paradigm or template.

Descartes's Copernican revolution within the passions rested on making wonder the first of the passions. In setting out its features he sets out a new template for the passions in general, and grounds human nature in its capacity for wonder rather than in its capacity for anger. From the time of Plato and Aristotle, through Roman Stoicism

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and early Christianity, and from there on to Scholasticism, the philosophy of the passions had taken either anger or fear as the central instance. Fear or anger became the template through which the question of how any experience of being in a state of passion could be defined and its mechanisms made clear. The history of descriptions of the soul depends on the relation of reason (Plato's first aspect of the soul) and desire (Plato's second aspect) to either anger (the Platonic tradition's third part) or to fear (the Stoic and Christian third, or passionate part). Before Descartes, philosophies of the soul, or human nature, could be divided into those reflecting the design of fear and those reflecting the quite different design of anger. In each case, fear or anger or wonder, an account of what it means, per se, to "have an experience" is implicated in the theory of the passions.

Descartes's three revolutions, wildly distinct in field, in importance, and in durability, are, when looked at closely, part of one revolution. The analysis of wonder in the book on the passions makes it clear that in its connection to learning and to science wonder is a key part of the process described in the *Discourse on Method*. The method is not a process of the intellect alone, but of the intellect, energized by wonder, rather than need, driven to consider objects brought to the attention of the intellect by the surprise of wonder. On the other side, in every one of Descartes's later writings on nature, the appeal within the actual presentation depends on the psychology of wonder and explanation. In Descartes's late work, *The Principles of Philosophy*, the third part treats the visible world, and in section after section he supplies his explanation for the phenomena of the earth, the moon, and the planets. Each of the final problems begins with the Latin phrase "Nec mirabimur"—"It should not be found wondrous that . . ." For example, it should not be found wondrous that the same side of the moon is always visible to us or that the planets around Jupiter move more quickly. Each is "nec mirabimus"; the phrase is used like a litany in every passage, "No one should be astonished that . . ." The language of wonder and its aftermath, explanation, pervades his writing on every aspect of empirical or speculative science.

What we now only read as a self-contained work, the *Discourse on Method*, was published by Descartes as the preface to a book contain-

ing three other works, *The Dioptics*, *The Meteors*, and *The Geometry*. The middle book, *Meteors*, takes up a number of phenomena that are striking, exceptional, or, as we might say, wondrous. A meteor, thunder, and the rainbow are classic instances of puzzling, dramatic, rare, and marvelous events or objects within nature. Each causes wonder, and the opening sentence of *Meteors* notes that “We naturally feel more wonder for those things above us, than for things at our own level.”⁶ This tiny aperçu within the psychology of wonder explains the domination of the phenomena of the sky in any work on wonder. The *Dioptics* begins by noting the new stars and new objects on earth that “these wondrous lenses” (“ces merveilleuses lunettes”), telescopes, microscopes, and mirrors, have discovered, a number far beyond the inventory of those known up to Descartes’s time.⁷ This is an essential fact. The great cosmological work of the seventeenth century occurred at a time when there was a large set of objects in the universe seen for the first time. Galileo, Newton, Descartes, and Kepler worked within the horizon of never-before-experienced facts. The newness that is part of the element of first-time experiences within wonder existed in a unique way because of advances in lenses that culminated in Galileo’s telescope and a few years later in Newton’s improved, reflecting telescope. Spinoza, the best-known philosopher among lens grinders of the seventeenth century, wrote in the decades after Descartes not only a small book on the rainbow, but also the most important modern work on the passions, his *Ethics*.

The experience of first sight does not have to be physical. Once Descartes had solved the refraction of light by means of his law of sines, he could take this mathematical “lens” and apply it to the problem of the rainbow and see the problem in a way never seen before. The technological production of newness—the moons of Jupiter that Galileo could show with his telescope—or the newer details within objects that had always been known, like the moon or sun, worked side by side with the newness produced by mathematical techniques, first among them, Descartes’s own analytic geometry that fused algebraic equations in two unknowns with plane geometry. This was also a lens—“une lunette merveilleuse”—in which each problem appeared as though seen for the first time.

A privileged position for the first generation within science after any new technique is introduced is one consequence of the psychology of wonder within discovery. Descartes, Galileo, Huygens, and Newton were the first eyes within a world made new by a critical mass of advances in lenses, in the theory of light, and in the mathematical techniques of the limit and series within analytic geometry and the calculus. Descartes's first sentence on the rainbow makes this newness clear. "The rainbow is a wonder of nature so remarkable and its cause has been from all times sought with such curiosity by philosophers [les bons esprits] and so little known, that I could not have chosen anything more appropriate to demonstrate how, by the method that I use, one can arrive at knowledge that all those who have gone before us, have never reached."⁸

To understand how the aesthetics of wonder and the poetics of thought are two sides of the same coin, I will look first at Descartes's definition of wonder in the *Passions of the Soul*. Then in the next chapter I will show the operation of wonder in the steps of his method and to do this I will look back to Plato for a striking example of the same method. Then in the fourth chapter I will turn to the history of the explanation of the rainbow in its relation to both method and wonder.

Descartes's Definition of Wonder

As he begins to ask about the order and number of the passions in the second part of his book on the passions, Descartes arrives at the passion of wonder (*l'admiration*). "Whenever the first encounter with an object surprises us, and we judge it to be new or very different from what we knew before or even what we had supposed it to be, we are caused to wonder at it and are astonished [étonnés] at it. And since this can occur before we know whether this object is useful to us or not, it seems to me that wonder is the first of all the passions." It is first because it occurs before we know whether it is useful or harmful and therefore whether we love it or hate it, whether we feel desire or aversion for it. Each of these four responses depends on knowing whether the object is useful, good for us, or the opposite, harmful for

us and therefore to be avoided or hated. Wonder occurs first. Unlike such passions as love and hate, desire and aversion, which occur in pairs, wonder has no opposite as Descartes goes on to observe. "It has no opposite because, if the object that presents itself has nothing in it that surprises us, we are not stirred by it and we consider it dispassionately."

We could say that since wondering at the object is what causes us to pause and notice it, the opposite is not some other kind of experience of it, but the state of not having an experience at all. Spinoza, who disagreed entirely with Descartes about wonder, and thought it an unimportant state, described wonder as a kind of stunned response to an object. We wonder at an object when in its presence the novelty of its features does not remind us of anything else. The mind does not move from this to that, a motion which we call association in the phrase "the association of ideas." And since for Spinoza such motion is the essence of the mind itself, wonder is a kind of defective state of the mind, because in wonder the mind is not really itself—it is not in motion. Wonder has a natural opposite for Spinoza in contempt. In the passion of contempt the mind in the face of an object is so little held by its characteristics that at every moment it thinks of something else. Spinoza's pair of definitions of wonder and contempt in the third part of his *Ethics*, the one being the mind stalling in the presence of an object, breaking down, and the other, the mind in flight from it so that it never enters the association of thought which is the mind's chief activity, make clear the more encompassing and powerful definition of Descartes.

The idea of wonder is expanded by Descartes in a second definition: "Wonder is a sudden surprise of the soul that brings it about that the soul goes on to consider with attention the objects that seem rare and extraordinary to it." Its use to us is that it "makes us learn and retain in our memory things that until then we were ignorant of."⁹ The passion leads us to apply our understanding, which our will engages in a particular attention and reflection. Those who lack a natural inclination to the passion of wonder are ordinarily very ignorant.

The capacity to feel wonder falls midway between two defective

alternatives. First, a stupidity that never wonders because it never notices anything. Nothing strikes dull minds as interesting, genuinely fresh or new. This is the alternative of dullness. The second alternative is just the opposite: those who find everything amazing or striking, even the trivial differences of surface, monstrosity, oddness, and the merely strange. This addiction to marvels Descartes calls astonishment (*l'étonnement*—the French word is derived from the word for thunder, as our word thunderstruck is), and it is the distinction between astonishment and wonder that saves the second for intellectual, scientific uses. To be dumbfounded by miracles or tricks, the bizarre and the odd, is just as hostile to the process of wonder as the stupidity that finds nothing surprising. **Astonishment is the pleasure we take in the face of the magician's tricks. It never leads to explanation or even to thought.** Astonishment is a technique for the enjoyment of the state of not knowing how, or why.

In Descartes's time an essential part of the new science was the protection of the category of wonder (the rainbow, for example) from the concept of miracle. In a miracle God suspends the laws of nature to raise the dead, part the waters of a river, heal the blind. In a writer like Augustine a scientific wonder like the operation of the magnet stands side by side with the divine miracles. One reason that so many key works in the methodology of science have been either on the magnet (Bacon and Gilbert) or on the rainbow has been the part played by the methodological need to distinguish these phenomena from miracles and magic tricks. By Descartes's day the Protestant term "hocus pocus," which comes from the consecration of the Catholic mass, where the priest changes the bread into the body of Christ with the words "Hoc est corpus meum," had drawn a line against miracle and magic altogether. It was on the grave of magic tricks, religious miracles, and, especially, "Wonder-Cabinets"—those museums of prescientific confusion about wonder where two-headed calves, bleeding crucifixes, and scientifically interesting stones and magnets were jumbled together—that the new concept of Cartesian wonder was erected.

In addition to the alternatives of a dullness incapable of noticing the new and an astonishment that happens too commonly to be

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anything more than a confusion about the odd and the superficial, there remains a third alternative which Descartes does not consider. Hume and Hobbes, among many others, have claimed that fear is our fundamental response to suddenness and to the unexpected and the strange. Hume, for one, makes this claim in his section on the passions in his *Treatise of Human Nature*, writing that all unexpected or sudden experiences evoke either fear or a state of turbulence, motion from this to that in the mind, which we read as fear.¹⁰ For Descartes, the pleasure and interest that we take in the rare and unusual is part of a purely intellectual curiosity that seeks to make sense of whatever is new within experience by means of understanding. Wonder, curiosity, and successful explanation notice the world and then renormalize that world, by fitting the exceptional back into the fabric of the ordinary.

In a world not yet sufficiently familiar, the predictable response to the extraordinary is a feeling of alarm that the novelty will turn out to be dangerous to the fragile order that maintains the self. Cartesian wonder is a middle state made possible by a history of confidence and familiarity, an overcoming of randomness by the installation of an ordinary world and the surpassing of fear by pleasure as the response to the unexpected. The state of wonder that leads to curiosity and investigation is the beginning of philosophy and the first of the passions, but, for Descartes, it is not the end.

Once the unexpected is questioned and found to be a varied form of the familiar, then wonder is over in this individual case. But just as wonder arises and leads to thought, and thought in its turn leads to an explanation that dispels wonder—as in the phrase “Oh, so *that’s* what it is!”—so, too, in the larger frame of time the capacity to feel wonder, in general, is exhausted.

That the unusual leads to pleasure rather than fear must be based on our general success with explanation, our mastery of experience that lets us renormalize most situations. That we do not find ourselves for the most part defeated by the unusual, left baffled in an unresolvable way so that we “give up” and think of something else, provides the experiential base for the pleasure of the sudden, the unexpected, and the extraordinary. If each unprecedented thing should, in experi-

ence after experience of novelty, turn out to be life threatening, then fear would be the response to novelty that our actual experience itself would bear out and train us to feel. Similarly, if what struck us at first as unusual were to remain, for the most part, permanently baffling, then, once again, it would not be wonder but indifference that we would feel. Preferring not to be frustrated and have the weakness of our powers of explanation proved to us again and again, we would write off the novel as the uninteresting after a long training by experience.

The fact of wonder is, then, itself a profound experiential result. Against fear it is possible precisely because the novel is not usually threatening. Against indifference, wonder has survived because on the whole wonder is a technique of curiosity, interest, and attempted explanation that has often paid off in renormalizing the extraordinary, which we first react to by feeling wonder. In *Hamlet* the appearance of the Ghost of the dead king leads Horatio to say, "O day and night, but this is wondrous strange!" (1.5.164). The unexpected he calls by both its names: wondrous and strange. At the same time he reminds us of the ordinary and familiar: day and night. Hamlet answers him with a remarkable line that picks up Horatio's phrase "wondrous strange." He says, "And therefore as a stranger give it welcome." The moment of wonder or the appearance of a stranger is the classic opportunity for fear. Yet just as hospitality makes the stranger welcome and testifies to the empirical experience that on the whole this has not proved disastrous, so too the experience of wonder welcomes the strange as a stranger is welcomed. It too benefits from a history of experiences of too-frequent fear that in the end proved baseless. Wonder and hospitality, in Hamlet's phrase, rely on the harmlessness of the world, in most of the unexpected ways we find it.

Wonder is the hospitality of the mind or soul to newness, but only where the security of the self has already been secured so deeply that security, a feeling implying the reality of fear, but its suspension, can itself be forgotten. The privileged position of Descartes's generation within a truly new visual world of Galileo's telescope and Kepler's laws did not uniformly produce a renaissance of wonder, a unique situation for the acceleration of explanation and speculation. Although

the balance between fear and pleasure in the face of the unknown is an empirical fact in that it depends on a history of intellectual success and an atmosphere of almost cosmic, as opposed to social, peace, that general balance does not translate, for every person living at a time or within a context of confidence in knowledge, into an interior balance of the same kind. In confident times there are still many apocalyptic thinkers, and within the general intellectual conditions of wonder that are among the powerful features of seventeenth-century science and philosophy, the exceptions can, from their side, make clear just what the structure of wonder itself was, but now by seeing it from the dark side of the same mirror.

Pascal's Alternative: Imagination, Terror, Abyss

Descartes's regrounding of the passions in wonder has, in the work of his near contemporary Pascal (d. 1670), its antiphonal voice. Pascal, whose greatness as a mathematician equals that of Descartes and whose scientific consciousness spans the years from Galileo to the early work of Newton, calls up the same experiences that in Descartes lead on to the aesthetics of wonder with its pleasure and then to explanation, but subjects those experiences to a religious capture that is unmistakably part of an aesthetics of fear. Pascal's single most often quoted saying contemplates the universe of Kepler, Galileo, and Newton, but with a newly intensified and justified fear: "Le silence éternel de ces espaces infinis m'effraie." ("The eternal silence of these infinite spaces fills me with dread.")¹¹ In Pascal, the word *effraie* with its active violence—to frighten, to terrify—works in a matrix with the Cartesian words for wonder (*l'admiration*), marvels (*merveilles*), and astonishment (*l'étonnement*). The very things that in Descartes would fall into one or another of these two categories of wonder or astonishment with their opposite intellectual and moral consequences shift in Pascal into this more important third term, the terrifying. What Descartes calls a wonder, Pascal will often call an abyss ("une abîme").

In Pascal's longest and most stunning picture of the human condition he places man between two infinities, the infinitely large scale of the universe, in the face of which man is insignificant, and the

infinitely small, in the face of which he is a monster. Each of these two infinities would usually call up a catalogue of wonders, of pleasures, of astonishments, but for Pascal, each is an abyss. In his invocation of the minute, Pascal seems at first to be leading toward an encomium—the rhetoric of wonder—but by prolonging and extending the contemplation he leans us over his abyss. In his evocation all the key words are present for his aesthetics of terror.

But, to offer him another prodigy [prodige] equally astounding [étonnant], let him look into the tiniest things he knows. Let a mite show him in its minute body incomparably more minute parts, legs with joints, veins in the legs, blood in the veins, humours in the blood, drops in the humours, vapours in the drops: let him divide these things still further until he has exhausted his powers of imagination, and let the last thing he comes down to now be the subject of our discourse. He will think perhaps that this is the ultimate of minuteness in nature.

I want to show him a new abyss [abîme]. I want to depict to him not only the visible universe, but all the conceivable immensity of nature enclosed in this miniature atom. Let him see there an infinity of universes, each with its firmament, its planets, its earth, in the same proportion as in the visible world, and on the earth animals, and finally mites, in which he will find again the same results as in the first; and finding the same thing yet again in the others without end or respite, he will be lost in such wonders [ces merveilles], as astounding [étonnantes] in their minuteness as others in their amplitude. For who will not marvel [qui n'admira] that our body, a moment ago imperceptible in a universe, itself imperceptible in the bosom of the whole, should now be a colossus [une colosse], a world, or rather a whole, compared to the nothingness [néant] beyond our reach? Anyone who considers himself in this way will be terrified at himself [s'effraiera de soi-même], and, seeing his mass as given him by nature, supporting him between these two abysses [ces deux abîmes] of infinity and nothingness, will tremble at these marvels [ces merveilles].¹²

Pascal's images are meant to pulverize that classically proud boast of humanism: man is the measure of all things. Man is the creature who, terrified of his measure when set within the measures of nature, becomes, in the end, terrified not of nature, but of himself, the crea-

ture between two abysses. Within Pascal's thought we pass subtly from the seen to the imagined, from the visual to the imaginary extended by simple extrapolation. The mite's legs, bloodstream, and humors are all potentially visible, but what follows is only imagined, and it is the imagination rather than sight—that locus of wonder for Descartes—that swamps the world of the visible by sinking it into the endless extension that the imagination proposes to the visible. Pascal is anti-scientific to the extent that the imaginary comes to give its tone to the visible rather than the visible giving its tone to the imaginary. The blood circulating in the leg of the mite is a tender image, not a terrifying one. It is only the dizzying vortex of worlds within worlds that can later capture and efface our first tender response to the actual scene.

Pascal makes clear the path by which the very discoveries of the new science could be reabsorbed back into the religious sensibility and used against themselves, and he does so by casually using the visible as just one short segment of inner vision, that is, of what we can imagine.

Pascal's is an abyss of lenses. The new microscope of Lécunwenhoek and the new telescope of Galileo reawaken a theological horror of the infinites they reveal, which, instead of exhilaration and curiosity, unleash profound depression and terror. Only the geology of the nineteenth century in combination with Darwinian thought, which set man within an infinity of time and development, could have added a third insult to Pascalian nature equal to the telescope and the microscope. But here, too, Pascal slips from the physical to the imaginary. Geological time, for example, asks us to set our history within some millions of years and not the 6,000 years of the Biblical story, but these millions of years are not infinity at all. In fact the exact time of cosmology is decisive in understanding the size of the universe. The microscope revealed ever smaller mites, bacteria, and finally viruses and proteins, but it did not reveal infinite regress, worlds within worlds, in a dizzy spiral. The scales of the universe were suddenly expanded, but Pascal willfully merges the very large into the infinite, the very small into a second infinite, then calls each an abyss.

The words of Descartes, *l'admiration* and *l'étonnement*, are, by using

the same technique, sunk within a framework of human powerlessness and insignificance. The very appeal of wonder to human powers of discovery and pleasure in being able to contemplate the marvelous are, in Pascal, neutralized or tainted by the more powerful theological vocabulary. Each infinity turns itself into an abyss. Each subject of wonder, like the blood in the mite's leg, falls into an infinite regression of a dizzy and almost nauseating kind. The marvelous gives up and puts on the black suit of the terrifying.

In Pascal the last stand of the contemplative aesthetics of fear takes place within the mathematical and scientific new world of the seventeenth century itself, not opposite it in the contemplation of demons or the eternal fires of hell, those more familiar topics of theological terror. What kind of an aesthetics does Pascal set in front of us? The crowding together of extremities is well known as a central device of Baroque art, as is the use of the infinite. In the Baroque aesthetics of strong effects, the lightest and the darkest sections of a work are crowded next to each other, while vast spaces are implied between things. Round domes or ceilings are painted to seem to disappear into skies and infinite regress. Pascal's image and Baroque aesthetics are two elements within the Counter Reformation's terrorism directed at the new scientific spirit.

In Pascal, Baroque aesthetics joins forces with the Inquisition to set up an inner reign of terror (man *terrified at himself* in Pascal's stunning phrase) to re-humble man and win him back for a spiritual life of fear. Descartes's dismissal of fear in his book on the passions is equal in importance to his vision that the alternative to wonder is anger (the irascible). Descartes calls fear "a coldness . . . a perturbation and astonishment [étonnement] of the soul, which takes from it the power of resisting the evils which it thinks lie at hand."¹³ The coldness is the opposite not only of the warmth of delight and wonder but of the very different heat of anger. That Descartes calls fear an astonishment takes account of the fact that, like wonder, fear is linked to sudden and surprising experiences. Here we see the deeper reason for his repudiation of astonishment (*l'étonnement*). It is not just that astonishment is an excitement in the superficial differences, the odd and the monstrous, and that it has no drive toward questioning and

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learning. More profoundly, it is astonishment's deep connection to fear and to a conception of human nature grounded in fear that sets it at the opposite moral pole from wonder in Descartes's thought.

Pascal, whose primary word is always astonishment rather than wonder, works through the same materials as Kepler, Descartes, and Newton. Harvey's masterpiece on the circulation of the blood stands behind Pascal's vision of the blood in the mite's leg. Pascal reshapes these materials to deform their psychological consequences. In Pascal, a whole century's excitement at being the first human beings to look through microscopes and telescopes (a thrill clearly felt in those passages in the work of Pascal's equally religious contemporary, the Puritan John Milton, when he describes in *Paradise Lost* looking through Galileo's telescope) chills to depression and to a feeling of insignificance and human frailty. This frailty is the preparatory step to a total surrender of the spirit to religious discipline, to biblical truth, and to reliance purely on God. It is only a prelude to the collapse and then surrender that led Pascal, after a mystical experience that took place, he notes almost like a laboratory scientist, between 10:30 and 12:30 on the night of November 23, 1654, to his entry into the disciplined Jansenist community of Port Royal and his "renunciation totale et douce," his total and sweet renunciation, and his "soumission totale à Jésus Christ et à mon directeur," his "total submission to Jesus Christ and to my spiritual director."¹⁴ The Pascalian is not an alternative comportment of the self but a step on the way to its collapse and the sweetness of its abolition.

Alongside the strongest version of the intellectual design of fear, as an alternative to Cartesian wonder, in the atmosphere of the new scientific world of the telescope and the microscope, this contrast between Descartes and Pascal brings into a new importance what we might call the protective side of the visual within thought. Pascal's turn depends on sliding from the visual to the imagined, by means of repetition and extrapolation without end. Mechanical repetition and extension are two of the essential poetic features of the thought structures of paranoia and obsession, those two mad versions of an intellectual science driven by fear. The imagination is a projective power, operating in just those realms where nothing is known or can be known.

Wonder is a response to the visible world. If we insist that the main locus of thought is the visible world, the part played by the projective imagination disappears. Aesthetics and the scientific (or Cartesian) use of the passion of wonder within experiences of the extraordinary unite in sheltering themselves within what we can now see as the protection of the visible. The imaginary, as we meet it in Pascal, although it seems to flourish within the same materials and even overlaps at first with the same range of feelings (the astonishing, the marvelous, the wonderful), differs fundamentally in ways that we can see by noticing that the imaginary has nothing to do with the extraordinary. The imaginary is quite simply free of the whole lawful play between the ordinary and the extraordinary. To put it even more strongly, the imaginary is also in its nature all that can never be experienced. The imaginary, like the Wittgensteinian ordinary, but in the opposite direction, is exactly all that is not experience. The two realms of the ordinary and the imaginary define from opposite sides of negation just what our notion of having an experience is about and how that experience is connected with noticing something or wondering at it.

With this point I circle back to the essential definition of wonder with which I began: a sudden experience of an extraordinary object that produces delight. Descartes places wonder first among the passions because it is the origin of intellectual life. To notice a phenomenon, to pause in thought before it, and to link it by explanation into the fabric of the ordinary: this is the essence of science in the widest meaning of the term.

Wonder Fades with Age

After this contrast to Pascal's terror, one final aspect of Cartesian wonder needs to be emphasized, at least in part, because it leads in its own way to a deep problem with and limit to the use of wonder. In each of its appearances wonder is temporary. Furthermore, it is most likely to appear toward the beginning of a discipline like optics or philosophy or, in the life of an individual, toward the beginning of intellectual life, or of thought in a given direction or upon a given problem. These many features have to be called the decay of wonder. They are not peripheral facts but, rather, essential to any accurate

definition of its nature. Wonder is what we could call our best first chance within thought. Wonder makes up part of what we might call the youth of experience or thought. For the individual, too, the moments in which seeing occurs encased in wonder form a threshold or make up an initiation into knowledge that fades or becomes ever more difficult to recapture once familiarity has given an apparent inevitability to all things. Descartes describes the decline of wonder with care equal to that lavished on his account of its nature.

And although this passion seems to diminish with use, because the more we meet with rare things which we wonder at, the more we accustom ourselves to cease to wonder at them, and to think that all those which may afterwards present themselves are common, still, when it is excessive, and causes us to arrest our attention solely on the first image of the objects which are presented, without acquiring any other knowledge of them, it leaves behind a custom which disposes the soul in the same way to pause over all the other objects which present themselves, provided that they appear to it to be ever so little new. And this is what causes the continuance of the malady of those who suffer from a blind curiosity—that is, who seek out things that are rare solely to wonder at them, and not for the purpose of really knowing them: for little by little they become so given over to wonder, that things of no importance are no less capable of arresting their attention than those whose investigation is more useful.¹⁵

In the remarkable opening of this passage Descartes makes it clear that not only must the contents of the experience be new, but the experience itself must be. It is not just that the rainbow must be as an object new to us, but that having this experience of novelty, pleasure, and excitement itself must be new. Once we become familiar with what the experience itself feels like—no matter what its content—the process of decline within wonder is already under way.

True wonder is a phase of the alert mind, of the mind in its process of learning. It wears out with age, situated as it must be between a dumbness unable to notice the extraordinary and a blind curiosity addicted to even trivial differences that can be experienced as “wonders” without leading to reflection or the pursuit of knowledge.



S-52. Book C, 1968-69.

color sequence

ten figures

RYB—0—OVG

VRY—1—RYB

BVR—2—VRY

GBV—3—BVR

YGB—4—GBV

OYG—5—YGB

ROY—6—OYG

VRO—7—ROY

GVR—8—VRO

OGV—9—GVR

Clean out your closet of unnecessary clothes. Cut them into strips of fabric. Using the knotted rustic rag rug method (Google search and watch YouTube videos) create a unique and personally colored rug.



Now that you've mastered this game you will be told "Point to a somewhat reddish green" Assume there are two cases: Either you do point to a colour (and always the same one), perhaps to an olive green—or you say, "I don't know what that means," or "There's no such thing."

We might be inclined to say that the one person had a different colour concept from the other; or a different concept of '... ish.'

31. We speak of "colour-blindness" and call it a *defect*. But there could easily be several differing abilities, none of which is clearly inferior to the others.—And remember, too, that a man may go through life without his colour-blindness being noticed, until some special occasion brings it to light.

32. Is it possible then for different people in this way to have different colour concepts?—*Somewhat* different ones. Different with respect to one or another feature. And that will impair their mutual understanding to a greater or lesser extent, but often hardly at all.

33. Here I would like to make a general observation concerning the nature of philosophical problems. Lack of clarity in philosophy is tormenting. It is felt as shameful. We feel: we do not know our way about where we *should* know our way about. And nevertheless it *isn't* so. We can get along very well without these distinctions *and* without knowing our way about here.

34. What is the connection between the blending of colours and 'intermediary colours'? We can obviously speak of intermediary colours in a language-game in which we do not produce colours by mixing at all, but only *select* existing shades.

Yet *one* use of the concept of an intermediary colour is to recognize the blend of colours which produces a given shade.

35. Lichtenberg says that very few people have ever seen pure white. Do most people use the word wrong, then? And how did *he* learn the correct use?—On the contrary: he constructed an ideal use from the actual one. The way we construct a geometry. And 'ideal' does not mean something specially good, but only something carried to extremes.

36. And of course such a construct can in turn teach us something about the actual use.

And we could also *introduce* a new concept of 'pure white', e.g. for scientific purposes.

(A new concept of this sort would then correspond to, say, the chemical concept of a 'salt'.)

37. To what extent can we compare black and white to yellow, red and blue, and to what extent can't we?

If we had a checked wall-paper with red, blue, green, yellow, black and white squares, we would not be inclined to say that it is made up of two kinds of parts, of 'coloured' and, say, 'uncoloured' ones.

38. Let us now suppose that people didn't contrast coloured pictures with black-and-white ones, but rather with blue-and-white ones. I.e.: couldn't blue too be felt (and that is to say, used) as not being an actual colour?

39. My feeling is that blue obliterates yellow, — but why shouldn't I call a somewhat greenish yellow a "bluish yellow" and green an intermediary colour between blue and yellow, and a strongly bluish green a somewhat yellowish blue?

40. In a greenish yellow I don't yet notice *anything* blue. — For me, green is one special way-station on the coloured path from blue to yellow, and red is another.

41. What advantage would someone have over me who knew a direct route from blue to yellow? And what shows that I don't know such a path? — Does everything depend on my range of possible language-games with the form "...ish"?

42. We will, therefore, have to ask ourselves: What would it be like if people knew colours which our people with normal vision do not know? In general this question will not admit of an unambiguous answer. For it is by no means clear that we *must* say of this sort of abnormal people that they know other *colours*. There is, after all, no commonly accepted criterion for what is a colour, unless it is one of our colours.

And yet we could imagine circumstances under which we would say, "These people see other colours in addition to ours."

43. In philosophy it is not enough to learn in every case *what* is to be said about a subject, but also *how* one must speak about it. We are always having to begin by learning the method of tackling it.

44. Or again: In any serious question uncertainty extends to the very roots of the problem.

45. One must always be prepared to learn something *totally* new.

46. Among the colours: Kinship and Contrast. (And that is logic.)

47. What does it mean to say, "Brown is akin to yellow?"

48. Does it mean that the task of choosing a somewhat brownish yellow would be readily understood? (Or a somewhat more yellowish brown).

49. The coloured intermediary between two colours.

50. "Yellow is more akin to red than to blue." –

51. The differences between black-red-gold and black-red-yellow. – Gold counts as a colour here.

52. It is a fact that we can communicate with one another about the colours of things by means of six colour words. Also, that we do not use the words "reddish-green", "yellowish-blue" etc.

53. Description of a jig-saw puzzle by means of the description of its pieces. I assume that these pieces never exhibit a three-dimensional form, but always appear as small flat bits, single- or many-coloured. Only when they are put together does something become a 'shadow', a 'high-light', a 'concave or convex monochromatic surface', etc.

54. I can say: This man does not distinguish between red and green. But can I say that we normal people distinguish between red and green? We could, however, say: "Here we see two colours, he sees only *one*."

55. The description of the *phenomena* of colour-blindness is part of psychology. And the description of the phenomena of normal colour vision too? Of course – but what are the presuppositions of such a description and for whom is it a description? Or better: what are the means it employs? When I say, “What does it presuppose?” that means “How must one react to *this description* in order to *understand* it?” Someone who describes the phenomena of colour-blindness in a book describes them in the concepts of the sighted.

56. This paper is lighter in some places than in others; but can I say that it is white only in certain places and gray in others?? – Certainly, if I painted it, I would mix a gray for the darker places.

A surface-colour is a quality of a surface. One might (therefore) be tempted not to call it a pure colour concept. But then what would a pure one be?!

57. It is not correct to say that in a *picture* white must always be the lightest colour. But it must be the lightest one in a flat pattern of coloured patches. A picture might show a book made of white paper in shadow, and lighter than this a luminous yellow or blue or reddish sky. But if I describe a plane surface, a wall-paper, for example, by saying that it consists of pure yellow, red, blue, white and black squares, the yellow ones cannot be lighter than the white ones, and the red cannot be lighter than the yellow.

This is why colours were shadows for Goethe.

58. There seems to be a more fundamental¹ colour concept than that of the surface colour. It seems that one could present it either by means of small coloured elements in the field of vision, or by means of luminous points rather like stars. And larger coloured areas are composed of these coloured points or small coloured patches. Thus we could describe the colour impression of a surface area by specifying the position of the numerous small coloured patches within this area.

But how should we, for example, compare one of these small colour samples with a piece of the larger surface area? In what surroundings should the colour sample occur?

¹ *Alternative readings*: simpler, purer, more elementary. *Ed.*

59. In everyday life we are virtually surrounded by impure colours. All the more remarkable that we have formed a concept of *pure* colours.

29.3

60. Why don't we speak of a 'pure' brown? Is the reason merely the position of brown with respect to the other 'pure' colours, its relationship to them all? – Brown is, above all, a surface colour, i.e. there is no such thing as a *clear* brown, but only a muddy one. Also: brown contains black – (?) – How would a person have to behave for us to say of him that he knows a *pure, primary* brown?

61. We must always bear in mind the question: How do people learn the meaning of colour names?

62. What does, "Brown contains black," mean? There are more and less blackish browns. Is there one which isn't blackish at all? There certainly isn't one that isn't *yellowish* at all.¹

63. If we continue to think along these lines, 'internal properties' of a colour gradually occur to us, which we hadn't thought of at the outset. And that can show us the course of a philosophical investigation. We must always be prepared to come across a new one, one that has not occurred to us earlier.

64. And we must not forget either that our colour words characterize the impression of a surface over which our glance wanders. That's what they're for.

65. "Brown light". Suppose someone were to suggest that a traffic light be *brown*.

66. It is only *to be expected* that we will find adjectives (as, for example, "iridescent") which are colour characteristics of an extended area or of a small expanse in a particular surrounding "shimmering", "glittering", "gleaming", "luminous").

67. And indeed the pure colours do not even have special commonly used names, that's how unimportant they are to us.

¹ The MS may contain a question-mark here. *Ed.*

LEFT)

with P 25 Parangolé capa 21
25 Parangolé Cape 21 "Xoxoba",
the shooting of the film
ardoso, 1979.
ras Valentim



RIGHT)

in Mangueira Hill with
P 25 Cape 21 "Xoxoba" (1968), P 08
Mangueira" (1965), P 05 Cape 02
Cape 01 (1964), during the shooting
by Ivan Cardoso, 1979.
ras Valentim

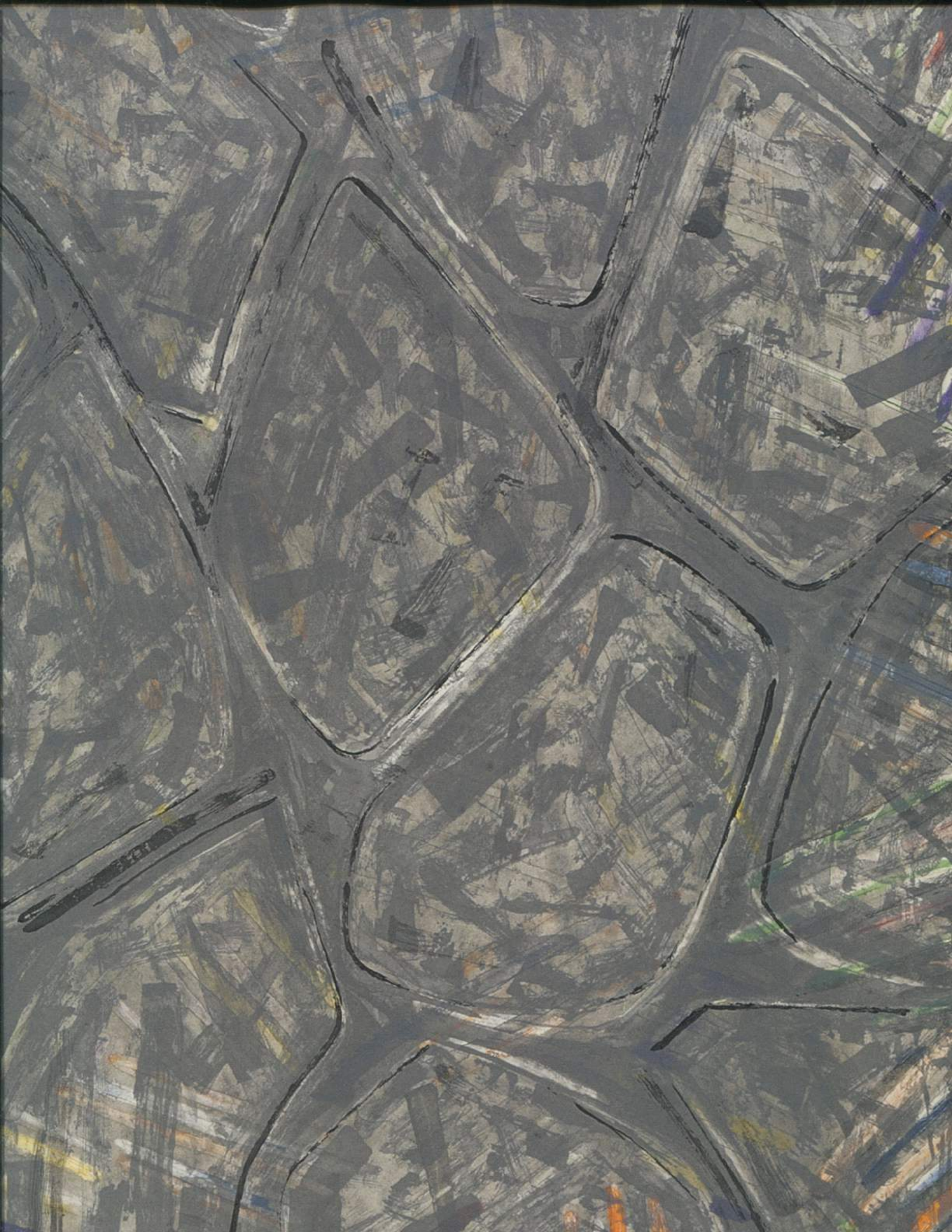
OVERLEAF)

with P 23 Parangolé capa 19
"P 23 Parangolé Cape 19
" (1968) (conflation of the
name Caetano Emanuel Teles
Mangueira's pedestrian's bridge.
the film H0 by Ivan
1979.



Go to your local art store. Purchase the basics: pre-stretched canvas, an appropriately sized brush to your canvas size of choice, large tubes of paint in black, white, blue, red, and yellow (oil or acrylic will do). Mix a color a day and apply it to the canvas. Purchase one canvas a day until you run out of paint.





lesson | **COLOR**

