

THE ANNOTATED[®]
Gulliver's Travels

Gulliver's Travels by Jonathan Swift

Edited, with a biographical introduction and notes, by

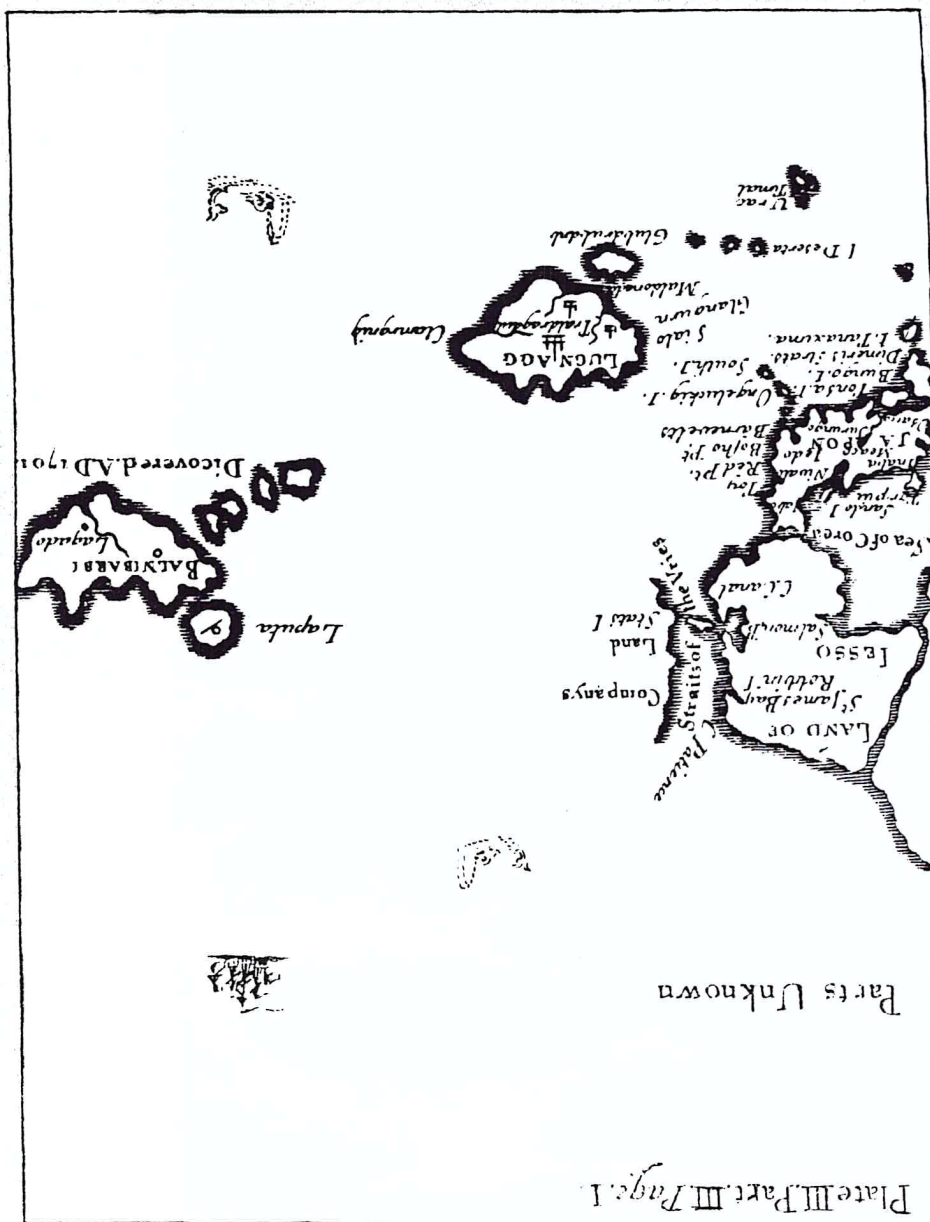
ISAAC ASIMOV



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Jonathan Swift. Engraving by Foundryman after C. Jervas. Courtesy, Prints Division, The New York Public Library.





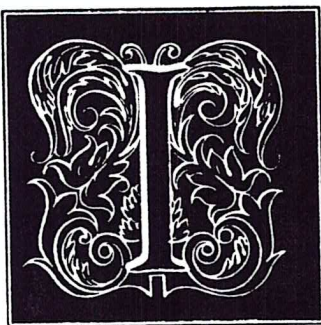
1 *Laputa, Balnibarbi, Luggnagg, Glubbdubdrib, and Japan*. Eight lands are mentioned altogether in the titles of the four parts of *Gulliver's Travels* and of them all, only Japan is real. Japan was, however, so little known to Europeans of Swift's time that it seemed almost as fanciful as the rest. The chief island of Japan, Honshu, is shown in recognizable shape on the map, but the land to the north is an unrecognizable distortion of Siberia and the islands to the east are, of course, imaginary.

A Voyage to Laputa,
Balnibarbi, Luggnagg,
Glubbdubdrib, and Japan



PART THREE

The Author sets out on his Third Voyage. Is taken by Pirates. The malice of a Dutchman. His arrival at an Island. He is received into Laputa.



HAD not been at home above ten Days, when Captain William Robinson, a Cornish Man, Commander of the *Hopewell*, a stout Ship of three Hundred Tons, came to my house. I had formerly been Surgeon of another Ship where he was Master, and a fourth Part Owner, in a Voyage to the *Levant*. He had always treated me more like a Brother than an inferior Officer; and hearing of my Arrival made me a Visit, as I apprehended only out of Friendship, for nothing passed more than what is usual after long Absence. But repeating his Visits often, expressing his Joy to find me in good Health, asking whether I were now settled for Life, adding that he intended a Voyage to the *East Indies*, in two Months, at last he plainly invited me, although with some Apologies, to be Surgeon of the Ship. That I should have another Surgeon under me, besides our two Mates; that my Salary should be double to the usual Pay; and that having experienced my Knowledge in Sea-Affairs to be at least equal to his, he would enter into any Engagement to follow my Advice, as much as if I had Share in the Command.

2

1

1 a Cornish Man. A native of Cornwall, the southwesternmost county of England.

2 the *Levant*. See Part I, Chapter I, note 10.

3 *the 5th Day of August, 1706.* Gulliver had remained at home for only two months and two days.

4 *Fort St. George.* This fort had been established on the southeast coast of India. The town of Madras grew up around it.

5 *Tonquin.* See Part II, Chapter 8, note 18.

3, 4

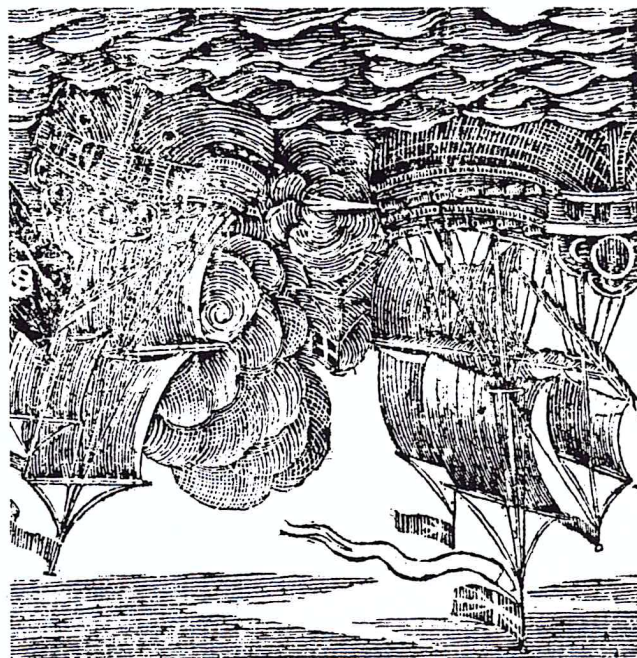
He said so many other obliging things, and I knew him to be so honest a Man, that I could not reject his Proposal; the Thirst I had of seeing the World, notwithstanding my past Misfortunes, continuing as violent as ever. The only Difficulty that remained, was to persuade my Wife, whose Consent however I at last obtained, by the Prospect of Advantage she proposed to her Children.

We set out the *5th* Day of *August, 1706*, and arrived at *Fort St. George*, the *11th* of *April 1707*. We stayed there three Weeks to refresh our Crew, many of whom were sick. From thence we went to *Tonquin*, where the Captain resolved to continue some time; because many of the Goods he intended to buy were not ready, nor could he expect to be dispatched in several Months. Therefore in hopes to defray some of the Charges he must be at, he bought a Sloop, loaded it with several Sorts of Goods, wherewith the *Ton-quin* usually trade to the neighbouring Islands; and putting

Fourteen Men on Board, whereof three were of the Country, he appointed me Master of the Sloop, and gave me Power to traffick, while he transacted his Affairs at *Tonquin*.

We had not sailed above three Days, when a great Storm arising, we were driven five Days to the North-North-East, and then to the East; after which we had fair Weather, but still with a pretty strong Gale from the West. Upon the tenth Day we were chased by two Pyrates, who soon overtook us; for my Sloop was so deep laden, that she sailed very slow; neither were we in a Condition to defend our selves.

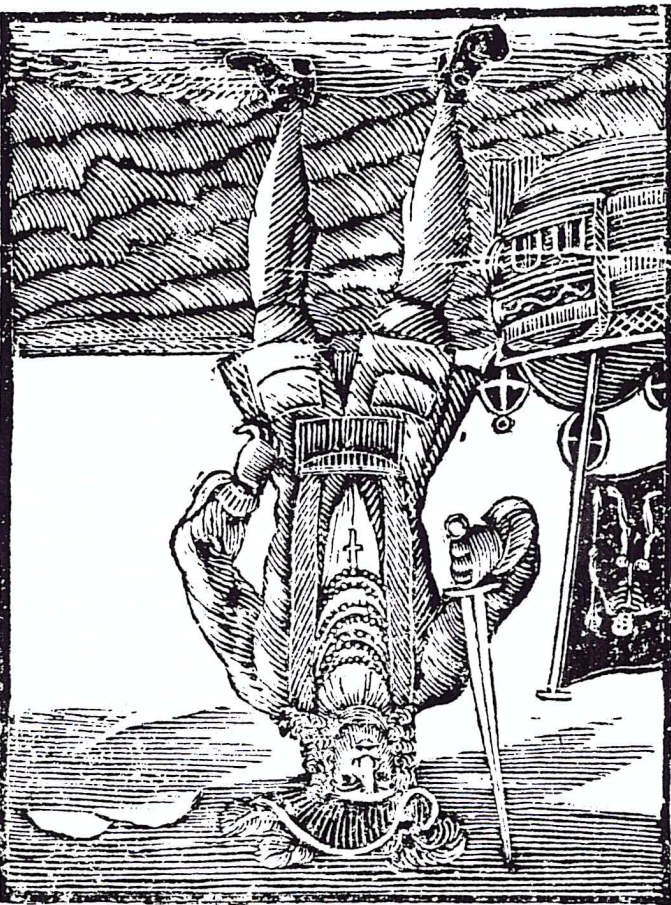
We were boarded about the same Time by both the Pyrates, who entered furiously at the Head of their Men; but finding us all pros-



The battle with the pirate ship.

6 *being Christians and Protestants . . . in strict Alliance.* England and the Netherlands, both Protestant, were allied in the War of the Spanish Succession against the Catholic powers of France and Spain. However, it was a Whig war and a Whig alliance and Swift hated both. In this section of the book, he consistently blackens the Dutch at every opportunity. Tory animus against the Dutch was based on the fact that they continued to be commercial rivals of England. Furthermore, Dutch tolerance of diversity in religion undermined the Tory concept of a national church.

7 *a Japanese Captain.* After 1600, Japan had, as a nation, gone into strict seclusion. By that time, European explorers had reached Japan and missionaries had converted a number of Japanese to Christianity. An anti-Christian campaign was strenuously carried out and by 1640, the Japanese islands were cleansed of the western religion. That is why Swift pictures the Dutchman as informing the Japanese captain that his captives are Christians—appealing to prejudice to insure a death sentence for them. As part of Japan's self-imposed isolation, all foreigners were expelled, except for some Dutch traders who were allowed to remain on the small island of Deshima (now part of the mainland) in Nagasaki Harbor. This was Japan's sole window to the outside world, and it accounts for the Japanese captain's ability to speak a little Dutch. Japan, however, as part of its isolation policy, forbade its population to leave the island and put an end to the building of ships large enough to make sea voyages. The very existence of a Japanese captain on the open seas is therefore unrealistic.



The private captain.

trate upon our Faces, (for so I gave Order,) they pinioned us with strong Ropes, and setting a Guard upon us, went to search the Sloop.

I observed among them a *Dutchman*, who seemed to be of some Authority, although he were not Commander of either Ship. He knew us by our Countenances to be *Englishmen*, and jabbering to us in his own Language, swore we should be tyed Back to Back, and thrown into the Sea. I spoke *Dutch* tolerably well; I told him who we were, and begged him in Consideration of our being Christians and Protestants, of neighbouring Countries, in strict Alliance, that he would move the Captains to take some Pity on us. This inflamed his Rage; he repeated his Threatnings, and turning to his Companions, spoke with great Vehemence, in the *Japanese* Language, as I suppose; often using the Word *Christians*.

The largest of the two *Pyrate* Ships was commanded by a *Japanese* Captain, who spoke a little *Dutch*, but very imperfectly. He came up to me, and after several Questions, which I answered in great Humility, he said we should not die. I made the Captain a very low Bow, and then turning to the *Dutchman*, said, I was sorry to find more Mercy in a Heathen, than in a Brother Christian. But I had soon Reason to repent those foolish Words; for that malicious

8 *the Latitude of 46 N. and of Longitude 183. Longitude these days is counted both east and west from the observatory at Greenwich. Greenwich is at zero degrees longitude and the continuation of that line on the other side of the world is 180 degrees. The method of counting longitude, however, was not yet fixed in Swift's time and Gulliver is apparently counting eastward from Greenwich and has gone past the 180 degree line. His "Longitude 183" is what we would call 177 degrees west longitude. If Gulliver were located there and at 46 degrees north, he would be about three hundred miles south of the southernmost Aleutian islands and not very far, I suspect, from the northwestern shore of Brobdignag. In fact, to reach this point, Gulliver might well have had to go through Brobdignag, but, of course, he never mentions that kingdom.*

9 *Match. Not the friction match we have today, or the rest of the paraphernalia would not be needed. The friction match was not invented till a century after Gulliver's Travels was published. Gulliver's "match" was a length of cord impregnated with sulfur, which would burn slowly when ignited by sparks from the flint and steel, or by the heat from a burning glass, and would in turn ignite the fuel that would roast the eggs. Such matches were used to ignite gunpowder and set off the firing of a musket (matchlock musket), although flint and steel could also be used directly (flintlock musket).*

Reprobate, having often endeavoured in vain to persuade both the Captains that I might be thrown into the Sea, (which they would not yield to after the Promise made me, that I should not die) how-ever prevailed so far as to have a Punishment inflicted on me, worse in all human Appearance than Death it self. My Men were sent by an equal Division into both the Pyrate-Ships, and my Sloop new manned. As to my self, it was determined that I should be set a-drift, in a small Canoe, with Paddles and a Sail, and four Days Provi-sions, which last the *Japanese* Captain was so kind to double out of his own Stores, and would permit no Man to search me. I got down into the Canoe, while the *Duchman* standing upon the Deck, loaded me with all the Curses and injurious Terms his Language could afford.

About an Hour before we saw the Pyrates, I had taken an Obser-vation, and found we were in the Latitude of 46 N. and of Longi-tude 183. When I was at some Distance from the Pyrates, I dis-covered by my Pocket-Class several Islands to the South-East. I set up my Sail, the Wind being fair, with a Design to reach the nearest of those Islands, which I made a Shift to do in about three Hours. It was all rocky; however I got many Birds Eggs; and strik-ing Fire, I kindled some Heath and dry Sea Weed, by which I roasted my Eggs. I eat no other Supper, being resolved to spare my Provisions as much as I could. I passed the Night under the Shelter of a Rock, strowing some Heath under me, and slept pretty well.

The next Day I sailed to another Island, and thence to a third and fourth, sometimes using my Sail, and sometimes my Paddles. But not to trouble the Reader with a particular Account of my Distresses; let it suffice, that on the 5th Day, I arrived at the last Island in my Sight, which lay South-South-East to the former. This Island was at a greater Distance than I expected, and I did not reach it in less than five Hours. I encompassed it almost round before I could find a convenient Place to land in, which was a small Creek, about three Times the Widthness of my Canoe. I found the Island to be all rocky, only a little intermingled with Tufts of Grass, and sweet smelling Herbs. I took out my small Provisions, and after having refreshed myself, I secured the Re-mainer in a Cave, whereof there were great Numbers. I gathered Plenty of Eggs upon the Rocks, and got a Quantity of dry Sea-weed, and parched Grass, which I designed to kindle the next Day, and roast my Eggs as well as I could. (For I had about me my Flint, Steel, Match, and Burning-glass.) I lay all Night in the Cave where I had lodged my Provisions. My Bed was the same dry Grass and Sea-weed which I intended for Fuel. I slept very little; for the Disquiet of my Mind prevailed over my Weariness, and kept me awake. I considered how impossible it was to preserve my Life, in so desolate a Place; and how miserable my End must be. Yet I found my self so listless and desponding, that I had not the Heart to rise; and before I could get Spirits enough to creep out of my Cave, the Day was far advanced. I walked a while among the Rocks, the Sky was perfectly clear, and the Sun so hot, that I was forced to turn my Face from it: When all on a Sudden it became obscured, as I thought, in a Manner very different from what hap-pens by the Interposition of a Cloud. I turned back, and perceived a vast Opaque Body between me and the Sun, moving forwards

towards the Island: It seemed to be about two Miles high, and hid the Sun six or seven Minutes, but I did not observe the Air to be much colder, or the Sky more darkened, than if I had stood under the Shade of a Mountain. As it approached nearer over the Place where I was, it appeared to be a firm Substance, the Bottom flat, smooth, and shining very bright from the Reflexion of the Sea below. I stood upon a Height about two Hundred Yards from the Shoar, and saw this vast Body descending almost to a Parallel with me, at less than an *English* Mile Distance. I took out my Pocket-Perspective, and could plainly discover Numbers of People moving up and down the Sides of it, which appeared to be sloping, but what those People were doing, I was not able to distinguish.

The natural Love of Life gave me some inward Motions of Joy; and I was ready to entertain a Hope, that this Adventure might some Way or other help to deliver me from the desolate Place and Condition I was in. But, at the same Time, the Reader can hardly conceive my Astonishment, to behold an Island in the Air inhabited by Men, who were able (as it should seem) to raise, or sink, or put it into a progressive Motion, as they pleased. But not being, at that Time, in a Disposition to philosophise upon this Phenomenon, I rather chose to observe what Course the Island would take; because it seemed for a while to stand still. Yet soon after it advanced nearer; and I could see the Sides of it, encompassed with several Gradations of Galleries and Stairs, at certain Intervals, to descend from one to the other. In the lowest Gallery, I beheld some People fishing with long Angling Rods, and others looking on. I waved my Cap, (for my Hat was long since worn out,) and my Handkerchief towards the Island; and upon its nearer Approach, I called and shouted with the utmost Strength of my Voice; and then looking circumspectly, I beheld a Crowd gathered to that Side which was most in my View. I found by their pointing towards me and to each other, that they plainly discovered me, although they made no Return to my Shouting: But I could see four or five Men running in great Haste up the Stairs to the Top of the Island, who then disappeared. I happened rightly to conjecture, that these were sent for Orders to some Person in Authority upon this Occasion.

The Number of People increased; and in less than Half an Hour, the Island was moved and raised in such a Manner, that the lowest Gallery appeared in a Parallel of less than an Hundred Yards Distance from the Height where I stood. I then put my self into the most supplicating Postures, and spoke in the humblest Accent, but received no Answer. Those who stood nearest over-against me, seemed to be Persons of Distinction, as I supposed by their Habit. They conferred earnestly with each other, looking often upon me. At length one of them called out in a clear, polite, smooth Dialect, not unlike in Sound to the *Italian*; and therefore I returned an Answer in that Language, hoping at least that the Cadence might be more agreeable to his Ears. Although neither of us understood the other, yet my Meaning was easily known, for the People saw the Distress I was in.

They made Signs for me to come down from the Rock, and go towards the Shoar, which I accordingly did; and the flying Island

11 *philosophise*. In Swift's time this meant to indulge in scientific speculation.

ventional interests of ordinary human beings. It also symbolizes the world of science which involves itself in abstract thought high above the con-

12 From the satirical standpoint, the city in the sky, which we will later learn is called Laputa, is usually supposed to symbolize the court of Great Britain

10 *an Island in the Air*. Others had invented fanciful flying cities before this, but Jonathan Swift was the first to attempt an explanation of its workings in line with the findings of contemporary science. This section of the book is therefore true science fiction, perhaps the earliest example we have of it. To include earlier works as science fiction involves broadening the definition of the genre to include works not strictly based on a scientific background, and thus little more than adventure fantasy—like, for instance, the first two parts of *Gulliver's Travels*.

Engraving from the first illustrated edition.
London, 1727. Courtesy, Rare Book Division,
The New York Public Library.



12 *Habit*. See Part I, Chapter 2, note 8.



"I . . . was drawn up by Pullies." *Thomas Stobard*, *The Novelist's Magazine*, 1782. Courtesy, *The New York Public Library*.

being raised to a convenient Height, the Verge directly over me, a Chain was let down from the lowest Gallery, with a Seat fastened to the Bottom, to which I fixed my self, and was drawn up by

Pullies.

The Humours and Dispositions of the Laputians described. An Account of their Learning. Of the King and his Court. The Author's reception there. The Inhabitants subject to fears and inquietudes. An Account of the Women.



T my alighting I was surrounded by a Crowd of People, but those who stood nearest seemed to be of better Quality. They beheld me with all the Marks and Circumstances of Wonder; neither indeed

was I much in their Debt; having never till then seen a Race of Mortals so singular in their Shapes, Habits, and Countenances. Their Heads were all reclined to the Right, or the Left; one of their Eyes turned inward, and the other directly up to the Zenith. Their outward Garments were adorned with the Figures of Suns, Moons, and Stars, interwoven with those of Fiddles, Flutes, Harps, Trumpets, Guitars, Harpsicords, and many more Instruments of Music, unknown to us in *Europe*. I observed here and there many in the Habit of Servants, with a blown Bladder fastened like a Tail to the End of a short Stick, which they carried in their Hands. In each Bladder was a small Quantity of dried Pease, or little Pebbles, (as I was afterwards informed). With these Bladders they now and then flapped the Mouths and Ears of those who stood near them, of which Practice I could not then conceive the Mean-

I one of their Eyes turned inward, and the other directly up to the Zenith. At the time *Gulliver's Travels* was published, western Europe was in the Age of Reason, a period in which science was triumphing and Isaac Newton (1642-1727) was the hero of the age. Swift, whose intention it was to castigate all the follies of mankind, did not hesitate to take on Reason—not so much Reason itself as what he considered un-

Isaac Newton, (1642-1727).
Courtesy, Library of Congress.



due faith in it: the making of a religion of Reason to the detriment of a concern for religious faith, morality, and ethics. Laputa is the island of Reason and Swift savagely depicts the follies to which it gives rise.

For instance, he emphasizes that the worshippers of Reason lose contact with the real concerns of life. Thus, the eyes of Laputians do not look forward in order to see the world and their fellow creatures. One eye looks inward to study the workings of the body and the other looks upward at the stars. This may refer to the two great wonder instruments of the age that so greatly extended the sense perception of human beings, the microscope and the telescope, respectively.

2 *Their outward Garments were adorned with . . . Suns, Moons . . . and Instruments of Music.* The heavenly bodies and the musical instruments represent the abstract studies, since both astronomy and music, pursued in a thoroughly theoretical way, seem to have no application whatever to ordinary human affairs.

Incidentally, it is only fair to state my own prejudices. I am completely out of sympathy with Swift's satire on science. His constantly reiterated belief that abstract studies were useless and that only that which has clear and immediate applications to human life was worth studying is foolish. It is a common mistake of nonscientists and "practical men" to suppose that it is easy to decide whether a scientific investigation is useful or not and that, therefore, if no use is immediately apparent, it should be abandoned. Almost every useful advance in two centuries has had as at least part of its basis some highly theoretical advance Swift would have scorned as foolish.

3 *They neither can speak, nor attend to the Discourses of others, without being roused.* It is commonly believed that those who occupy their minds with deep thought have no room in those minds for anything else. Anyone who concentrates on anything is likely to forget other things. Someone who plays golf and forgets dinner in the excitement is indulged as a sportsman; someone who is working out an abstruse speculation and forgets dinner is hoisted at as an "absent-minded professor." Well, the Laputians are absent-minded professors to the extreme.

4 *Taction. Touch.*

5 *He is always so wrapped up in Cogitation, that he is in Danger of falling down every Precipice.* Undoubtedly, Swift is thinking of the well-known story of Thales, the philosopher of Miletus, who lived about 600 B.C. Once, when starting at the stars while walking, he failed to see a ditch at his feet, and fell in. A bystander laughed and said, "Here is a man who would understand the motion of the stars, yet who cannot see what lies at his feet." Thales was the prototype of the "absent-minded professor."

6 *Into the Kennel.* Into the channel, i.e., the trough in which water and sewage flow down the street to join some brook or river eventually. We would say "into the gutter" today.

ing. It seems, the Minds of these People are so taken up with intense Speculations, that they neither can speak, or attend to the Discourses of others, without being roused by some external Taction upon the Organs of Speech and Hearing; for which Reason, those Persons who are able to afford it, always keep a *Flapper*, (the Original is *Climenole*) in their Family, as one of their Domesticks; nor ever walk abroad or make Visits without him. And the Business of this Officer is, when two or more Persons are in Company, gently to strike with his Bladder the Mouth of him who is to speak, and the Right Ear of him or them to whom the Speaker addresses himself. This *Flapper* is likewise employed diligently to attend his Master in his Walks, and upon Occasion to give him a soft Flap on his Eyes; because he is always so wrapped up in Cogitation, that he is in manifest Danger of falling down every Precipice, and bouncing his Head against every Post; and in the Streets, of jostling others, or being jostled himself into the Kennel. It was necessary to give the Reader this Information, without which he would be at the same Loss with me, to understand the

Laputian gentlemen conversing. Ad. Lalage, 1875. Courtesy, Library of Congress.



Proceedings of these People, as they conducted me up the Stairs, to the Top of the Island, and from thence to the Royal Palace. While we were ascending, they forgot several Times what they were about, and left me to my self, till their Memories were again roused by their *Flappers*; for they appeared altogether unmoved by the Sight of my foreign Habit and Countenance, and by the Shouts of the Vulgar, whose Thoughts and Minds were more disengaged.

At last we entered the Palace, and proceeded into the Chamber of Presence; where I saw the King seated on his Throne, attended on each Side by Persons of prime Quality. Before the Throne, was a large Table filled with Globes and Spheres, and Mathematical Instruments of all Kinds. His Majesty took not the least Notice of us, although our Entrance were not without sufficient Noise, by the Concourse of all Persons belonging to the Court. But, he was then deep in a Problem, and we attended at least an Hour, before he

"His Majesty . . . was then deep in a Problem." T. Morten, 1865.
Courtesy, Library of Congress.



A Laputian gentleman taking a walk. Arthur Rackham, 1900 and 1909.

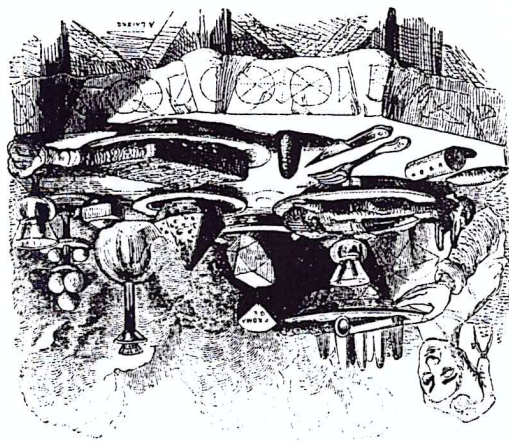
7 Vulgar. See Part I, Chapter 6, note 4.

8 *the King*. The King of Laputa, like the King of Lilliput, is usually taken by the commentators to represent George I. George I patronized scientists and musicians and, while he was still elector of Hanover, was patron of the great scientist Gottfried Wilhelm Leibniz (1646-1716). George I was not particularly learned himself, however, so it was all the more credit to him, then, for appreciating learning in others.

9 *very mean Opinion of my Understanding.* A very low opinion. The King apparently felt Gulliver must be a very shallow thinker if his attention could so easily be distracted by something as unimportant as having someone speak to him.

10 *distinguish'd . . . for his Hospitality to Strangers.* This is a clearer stroke at George I. When George I left Hanover to become king of Great Britain on the death of Queen Anne, he brought with him many Hanoverians to whom he gave places about the court. The British naturally resented this, and it is that which occasions Swift's sarcastic comment on the King's hospitality to strangers.

11 *Haut-boys.* Oboes. The whole passage is an indication of the manner in which the Laputians apply their theoretical abstractions to uses that are not natural, and therefore not really useful. In other words, the point Swift makes throughout this section is that scientists are silly.



Gulliver's dinner in Laputa. J. J. Grandville, 1835. Courtesy, Library of Congress.

could solve it. There stood by him on each Side, a young Page, with Flaps in their Hands; and when they saw he was at Leisure, one of them gently struck his Mouth, and the other his Right Ear; at which he started like one awaked on the sudden, and looking towards me, and the Company I was in, recollected the Occasion of our coming, whereof he had been informed before. He spoke some Words; whereupon immediately a young Man with a Flap came up to my Side, and flap'd me gently on the Right Ear; but I made Signs as well as I could, that I had no Occasion for such an Instrument; which as I afterwards found, gave his Majesty and the whole Court a very mean Opinion of my Understanding. The King, as far as I could conjecture, asked me several Questions, and I addressed my self to him in all the Languages I had. When it was found, that I could neither understand nor be understood, I was conducted by his Order to an Apartment in his Palace, (this Prince being distinguish'd above all his Predecessors for his Hospitality to Strangers,) where two Servants were appointed to attend me. My Dinner was brought, and four Persons of Quality, whom I remembered to have been very near the King's Person, did me the Honour to dine with me. We had two Courses, of three Dishes each. In the first Course, there was a Shoulder of Mutton, cut into an Equilateral Triangle; a Piece of Beef into a Rhomboides; and a Pudding into a Cycloid. The second Course was two Ducks, trussed up into the Form of Fiddles; Sausages and Puddings resembling Flutes and Haut-boys, and a Breast of Veal in the Shape of a Harp. The Servants cut our Bread into Cones, Cylinders, Parallel-ograms, and several other Mathematical Figures. While we were at Dinner, I made bold to ask the Names of several Things in their Language; and those noble Persons, by the Assistance of their Flappers, delighted to give me Answers, hoping to raise my Admiration of their great Abilities, if I could be brought to converse with them. I was soon able to call for Bread, and Drink, or what-ever else I wanted.

After Dinner my Company withdrew, and a Person was sent to me by the King's Order, attended by a Flapper. He brought with him Pen, Ink, and Paper, and three or four Books, giving me to understand by Signs, that he was sent to teach me the Language. We sat together four Hours, in which Time I wrote down a great Number of Words in Columns, with the Translations over against them. I likewise made a Shift to learn several short Sentences. For my Tutor would order one of my Servants to fetch something, to turn about, to make a Bow, to sit, or stand, or walk, and the like. Then I took down the Sentence in Writing. He shewed me also in one of his Books, the Figures of the Sun, Moon, and Stars, the Zodiac, the Tropics and Polar Circles, together with the Denominations of many Figures of Planes and Solids. He gave me the Names and Descriptions of all the Musical Instruments, and the General Terms of Art in playing on each of them. After he had left me, I placed all my Words with their Interpretations in alphabetical Order. And thus in a few Days, by the Help of a very faithful Memory, I got some Insight into their Language.

The Word, which I interpret the *Flying* or *Floating Island*, is in the Original *Laputa*; whereof I could never learn the true Etymology. *Lap* in the old obsolete Language signifieth *High*, and *Utah* a *Governor*; from which they say by Corruption was derived *Laputa* from *Laputuh*. But I do not approve of this Derivation,

right Angle in any Apartment; and this Defect ariseth from the
 Their Houses are very ill built, the Walls bevil, without one
 served to his Majesty's Table.

ments, after the Figures of which they cut up the Joyns that were
 Kings' Kitchen all Sorts of Mathematical and Musical Instru-
 drawn from Musick, needless here to repeat. I observed in the
 Ellipses, and other Geometrical Terms; or else by Words of Art
 Animal, they describe it by Rhombs, Circles, Parallelograms,
 would, for Example, praise the Beauty of a Woman, or any other
 Ideas are perpetually conversant in Lines and Figures. If they
 Science and Musick; and in the latter I was not unskilled. Their
 in acquiring their Phrasology, which depended much upon that
 The Knowledge I had in Mathematicks gave me great Assistance
 which were drawn up by Pullies.

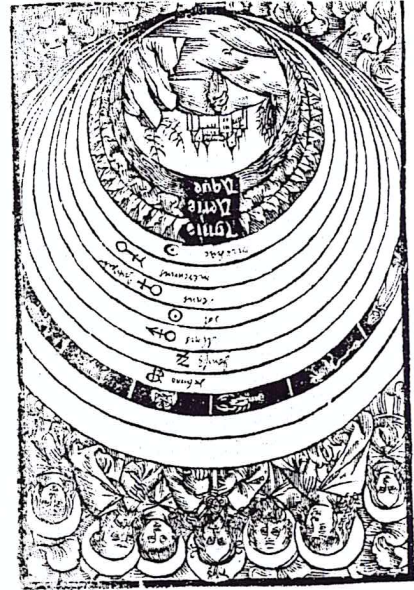
Kite. Sometimes we received Wine and Victuals from below,
 fastened by School-boys at the End of the String that holds their
 their Petitions, which mounted up directly like the Scraps of Paper
 Weights at the Bottom. On these Pack-threads the People strung
 this Purpose, several Pack-threads were let down with small
 from whence he might receive the Petitions of his Subjects. And to
 ordered that the Island should stop over certain Towns and Villages,
 In our Journey towards *Lagado* the Capital City, his Majesty
 whatever Instrument they most excelled.

Periods; and the Court was now prepared to bear their Part in
 to hear the Musick of the Spheres, which always played at certain
 me. He said, that the People of their Island had their Ears adapted
 neither could I possibly guess the Meaning, till my Tutor informed
 without Intermission; so that I was quite stunned with the Noise;
 all their Musical Instruments, played on them for three Hours
 tended by his Nobility, Courtiers, and Officers, having prepared
 Morning, about Eleven o'Clock, the King himself in Person, at-
 gressive Motion made in the Air by the Island. On the second
 Days and an Half. I was not in the least sensible of the pro-
 It was about Ninety Leagues distant, and our Voyage lasted four
 the Metropolis of the whole Kingdom, below upon the firm Earth.
 move North-East and by East, to the vertical Point over *Lagado*,
 Answers. His Majesty had given Orders, that the Island should
 many Things the King spoke, and to return him some Kind of
 Dictionary; and when I went next to Court, was able to understand
 position that held me some Days longer, I much enlarged my
 During my Confinement for want of Cloaths, and by an Indis-
 such Accidents very frequent, and little regarded.

Figure in the Calculation. But my Comfort was, that I observed
 very ill made, and quite out of Shape, by happening to mistake a
 which he entered upon Paper, and in six Days brought my Cloaths
 described the Dimensions and Out-Lines of my whole Body; all
 my Altitude by a Quadrant, and then with Rule and Compasses,
 different Manner from those of his Trade in *Europe*. He first took
 Measure for a Suit of Cloaths. This Operator did his Office after a
 was clad, ordered a Taylor to come next Morning, and take my
 Those to whom the King had entrusted me, observing how ill I
 obtrude, but submit to the judicious Reader.

Learned among them a Conjecture of my own, that *Laputa* was
quasi Lap owed; *Lap* signifying properly the dancing of the Sun
 Beams in the Sea; and *owed* a Wing, which however I shall not
 which seems to be a little strained. I ventured to offer to the

16



Ptolemaic universe, 1513. Courtesy,
 Library of Congress.

15

15 *the Musick of the Spheres*. The Greek astronomers
 had supposed the universe to consist of an elaborate
 set of concentric transparent spheres, each turning
 after its own complex fashion and carrying the plan-

14 *mistake a Figure in the Calculation*. The very apo-
 theosis of reason was, of course, Isaac Newton,
 whom Swift did not like. Newton was once embar-
 rassed by a typographical error in a book of his, and
 this is probably a sly reference to that.

13 *Quadrant*. An instrument used to measure the
 heights of those objects whose measurements cannot,
 for one reason or another, be taken directly with a
 yardstick or a tape measure. This follows a rather
 common misconception (believed by many of the ill-
 things in a complicated, "Rube Goldberg" fashion,
 when actually something very simple and down-to-
 earth would do just as well.

14

14 against "that Great Whore, Reason."

13

13 opponents used reason to dispute some of the points
 in Luther (11483-1546), exasperated when his
 ence to reason itself, the deity of the scientists. Mar-
 controlling Parliament. Then, too, it may be a refer-
 England with a Hanoverian on the throne and Whigs
 well have been Swift's bitter opinion of the court of
 that *la puta* is Spanish for "the whore." That may
 which many of his readers would be at once aware—
 lumped scientists generally). It is a plain fact—of
 (into which category Swift may, at his bitterest, have
 learning that so often marked the pseudointellectuals
 cy-mology is designed by Swift to mock the false
 and *owed* a Wing. Gulliver's excursion here into mock
 12 *Lap signifying . . . the dancing of the Sun Beams . . .*

12

ets and other heavenly bodies around the Earth. Some mystics supposed that all these turnings produced a kind of celestial music or "Musick of the Spheres," which earthbound mortals could not hear. Perhaps the last person of note to take the concept of the music of the spheres seriously was the great German astronomer, Johannes Kepler (1571-1630), who, in one of his more mystic moments, tried to work out the notes produced by each planet as it moved about in its elliptical orbit.

For almost a century before Swift's time, therefore, the music of the spheres had been completely discredited.

16 *bevil.* Not at right angles to each other.

17 *practical Geometry.* Here again Swift contrasts the abstract and practical, "pure" versus "applied" science, with all the advantage going to the latter. Actually, the ancient Greek mathematicians did, indeed, despise practical applications of their art and viewed it as, ideally, a feast of pure reason. Yet Swift was an admirer of the ancients and it is rather ironic, and frustrating, that he shifted the vices of the ancient mathematicians, whom he admired, to the shoulders of the modern mathematicians, whom he disliked. The mathematicians of Swift's day were actually using mathematics for practical matters constantly.

18 *Judicial Astrology.* "Natural astrology" is the foretelling of future events in the inanimate world from the position of the planets. This, in fact, is a portion of what we would today call astronomy and comparative few people are interested in that.

"Judicial Astrology," referred to here, involves the prediction of the future of nations and individuals from the position of the planets. This is sheer nonsense, of course, and, as a result, is staunchly believed in by many millions of people even today.

Judicial astrology had such a reputation and astrological forecasts were in such demand that some great legitimate astronomers, notably Kepler, cast horoscopes as a way of earning ready cash. Nor did this habit quite die out with Kepler, and it is at this that Swift's shaft is aimed.

19 *admir'd.* See Part I, Chapter I, note 26.

20 *the same Disposition among most of the Mahometans I have known in Europe.* This is probably a dig at Isaac Newton, who served as master of the Mint, from 1696 on. He involved himself completely in coinage reform, moved actively against counterfeiters, and did a good job.

In 1722, Walpole's government had granted a license for the coining of new halfpence and farthings for use in Ireland. The Irish people were not contented and the conditions were such that everyone involved in England would make a great deal of money.

Swift was living in Dublin at the time, and while he was not a Catholic and while he was of English descent, he came out furiously in favor of the right of the Irish to a voice in matters that so closely af-

17 Contempt they bear for practical Geometry; which they despise as

vulgar and mechanical, those Instructions they give being too refined for the Intellectuals of their Workmen; which occasions perpetual Mistakes. And although they are dextrous enough upon a Piece of Paper, in the Management of the Rule, the Pencil, and the Divider, yet in the common Actions and Behaviour of Life, I have not seen a more clumsy, awkward, and unhandy People, nor so slow and perplexed in their Conceptions upon all other Subjects, except those of Mathematics and Musick. They are very bad Reasoners, and vehemently given to Opposition, unless when they happen to be of the right Opinion, which is seldom their Case. Imagination, Fancy, and Invention, they are wholly Strangers to, nor have any Words in their Language by which those Ideas can be expressed; the whole Compass of their thoughts and Mind, being shut up within the two forementioned Sciences.

Most of them, and especially those who deal in the Astronomical Part, have great Faith in judicial Astrology, although they are ashamed to own it publicly. But, what I chiefly admired, and thought altogether unaccountable, was the strong Disposition I observed in them towards News and Politics; perpetually enquiring into publick Affairs, giving their Judgments in Matters of State; and passionately disputing every Inch of a Party Opinion. I have indeed observed the same Disposition among most of the Mathematicians I have known in Europe; although I could never discover the least Analogy between the two Sciences; unless those People suppose, that because the smallest Circle hath as many Degrees as the largest, therefore the Regulation and Management of the World require no more Abilities than the handling and turning of a Globe. But, I rather take this Quality to spring from a very common Intimacy of human Nature, inclining us to be more curious and conceited in Matters where we have least Concern, and for which we are least adapted either by Study or Nature.

These People are under continual Disquietudes, never enjoying a Minute's Peace of Mind; and their Disturbances proceed from Causes which very little affect the rest of Mortals. Their Apprehensions arise from several Changes they dread in the Celestial Bodies. For Instance; that the Earth by the continual Approaches of the Sun towards it, must in Course of Time be absorbed or swallowed up. That the Face of the Sun will by Degrees be encrust'd with its own Effluvia, and give no more Light to the World. That, the Earth very narrowly escaped a Brush from the Tail of the last Comet, which would have infallibly reduced it to Ashes; and that the next, which they have calculated for One and Thirty Years hence, will probably destroy us. For, if in its Perihelion it should approach within a certain Degree of the Sun, (as by their Calculations they have Reason to dread) it will conceive a Degree of Heat ten Thousand Times more intense than that of red hot glowing Iron; and in its Absence from the Sun, carry a blazing Tail Ten Hundred Thousand and Fourteen Miles long; through which if the Earth should pass at the Distance of one Hundred Thousand Miles from the *Nucleus*, or main Body of the Comet, it must in its Passage be set on Fire, and reduced to Ashes. That the Sun daily spending its Rays without any Nourishment to supply them, will at last be wholly consumed and annihilated; which must be attended with the Destruction of this Earth, and of all the Planets that receive their Light from it.

ined in Swift's time. There will come a time when enough of the hydrogen fuel of the Sun will be turned into helium "effluvia" to alter the Sun's nature to the point where Earth is longer a livable world, but that time is perhaps 7 billion years in the future.

23 *the Earth very narrowly escaped . . . the last Comet, which would have infallibly reduced it to Ashes. In ancient and medieval times, comets were thought to be flaming patches of the atmosphere. The superstitions, by which we might as well say every body, believed them to be signs sent by God betokening misfortune. (Since misfortune always followed the appearance of a comet, this feeling was strengthened. No one seemed to notice that misfortune always followed the nonappearance of a comet, also.)*

Beginning with the observations of the Danish astronomer, Tycho Brahe (1546-1601), of a comet in 1577, it began to appear that comets existed far beyond the atmosphere and were members of the solar system, whirling about the Sun as the planets did. It was a natural assumption that they were massive objects, like the planets, especially since they showed visible shapes whereas the ordinary planets were mere dots of light, so that the comets had to be larger in size, it was reasoned. Comets did not have the regular, nearly circular orbits of the planets, and it was much more likely that a wandering comet might strike the Earth than that a well-regulated planet would, especially if it were not God that ordered the movement of the heavenly bodies, but mathematical formulas.

And would not a collision between a comet and the Earth destroy our planet? Would not even a glancing blow of a comet's tail do so? We know now that comets are small objects and that the insubstantial haze that makes up a comet's extended body and, particularly, its tail, is little more than visible vacuum—but this was not understood in Swift's time.

24 *the next, which they have calculated for One and Thirty Years hence. Comets came to be understood as well-regulated members of the solar system, obeying the law of gravity as exactly as the planets did. Even if Swift were disposed to accept this new understanding, he would have been tempted to turn away, since this was made final by the calculations of Edmond Halley (1656-1742), a close friend of Swift's enemy, Newton.*

In 1705, Halley presented the world with the calculations that led him to identify what had been thought to be a number of comets, which had appeared at intervals of seventy-five or seventy-six years, as a single body (now called "Halley's comet") making regular revolutions about a very elongated elliptical orbit. Halley predicted that the comet would return in 1758, which was thirty-two years after the publication of *Gulliver's Travels*. Naturally, his prediction didn't carry much conviction among those who preferred to believe in comets as signs from God, sent irregularly to warn sinners. Here Swift satirizes the prediction, sure of getting a laugh.

fected themselves. He published a series of anonymous essays, purportedly by a man named Drapier, so brilliantly invective that the whole proposal was defeated. What Swift could not forgive was that Newton had lent his prestige to the coinage proposal. To Swift that was an example of a mathematician giving his "judgments in Matters of State" concerning which he had no expertise.

21 *the Earth . . . must in Course of Time be absorbed or swallowed up. Here Swift satirizes the "doom-criers" whom, of course, we always have with us. True to the thrust of this section, Swift equates doom-crying with scientists, although the historical fact is that the loudest doom-criers have always been the clergy and others who were convinced that any day God would punish the earth for its sins.*

Newton had advanced his system of the universe, based on the laws of motion and the law of universal gravitation, forty years before the publication of *Gulliver's Travels*. In that system, the Earth moves about the Sun because it is attracted to the Sun. It was possible to speculate, therefore, that eventually the attraction would overcome all else and that little by little the Earth would approach the Sun and be swallowed by it. Even if this occurred, though, it was perfectly well understood by astronomers that it could take place only in the extremely and indefinitely remote future (just as many of us now believe that *eventually* any piece of matter, such as the Earth, will be swallowed by a black hole).

How far Swift understood, or permitted himself to understand, the new astronomy, is uncertain. He still could not help but think in Ptolemaic terms, as when he here tells of the continual approach of the Sun toward the Earth, as though he automatically things of the Earth standing still and the Sun moving, or when, as earlier, he speaks of the music of the spheres.

It may be that as a clergyman, he felt mankind was more secure in assuming that God's word kept the Earth and Sun in their respective places. The astronomers, replacing the sure protection of God with the flimsy assurances of mathematical computations, would therefore naturally feel fear. On the other hand, the Bible clearly states that the Day of Judgment would come in the not-distant future, and religionists have awaited the end of the world through divine fiat far more apprehensively than ever scientists have feared it through the effects of gravity.

22 *the Sun will by Degrees be encrusted with its own Effluvia. Again, Swift points up the fear that must result in turning from God to mathematics. Once astronomers abandoned the notion of the Sun as a divine and eternal fire and tried to show that the same natural laws ruled both the heavens and the Earth (the core of Newton's system), then the Sun had to be viewed as no more than a very large bonfire. If this were so, would not the accumulating ash and smoke (the "effluvia" Swift talks of) choke the flames eventually and put them out? The answer, of course, is yes—after a fashion quite different from anything that could have been imagined.*

The laugh, however, was on Swift. Halley's comet returned exactly on schedule, though neither Halley nor Swift lived long enough to see it do so.

25 *Perihelion*. Any object orbiting the sun is at its "perihelion" when it is at that point of its orbit closest to the sun.

26 *Ten Thousand Times more intense than that of red boiling Iron*. In this passage, Swift is satirizing the manner in which astronomers use huge figures and great exactness. The layman's attitude, which Swift is here exploiting, tends to be "How can they know that?" The odd part, though, is that astronomy is a comparatively simple science and astronomers can "know that."

A temperature which is "ten Thousand times more intense than that of red hot glowing Iron" would be about 10 million degrees and, of course, any comet raised to that temperature through a close approach to the sun (an impossible temperature rise under the circumstances, by the way) would simply evaporate.

27 *a blazing Tail Ten Hundred Thousand and Fourteen Miles long*. The joke is on Swift. Comet's tails are sometimes far longer than this.

28 *the Sun . . . will at last be wholly consumed and annihilated*. Again Swift is satirizing fears about the end of the sun, this time through the sheer exhaustion of fuel, rather than through accumulations of smoke and ash. Actually, though Swift may not have imagined it, this was an extraordinarily prescient thought. It was not till a century and a quarter after the publication of *Gulliver's Travels* that physicists finally gathered enough data to make the notion of the conservation of energy compelling. It was only in the mid nineteenth century, then, that the first careful scientific consideration was applied to the problem of the energy source of the sun.

29 *contemn*. Despise.

30 *the prime Minister*. In this passage Swift is not only taking another poke at the absentmindedness of scientists, who are so absorbed in their speculations that they are not interested in sex and do not notice their wives' infidelities, but he seems also to be making a specific reference to Walpole. There were stories that Walpole's wife was unfaithful to him and that he was indifferent to the fact and, true or not, Swift was delighted to make use of the story and to imply that a woman would find anyone, even a deformed and sadistic servant, preferable to him.

31 *the Caprices of Womanankind*. It has long been an article of faith among men that women are unreasonable beings who act on whim and caprice. Men always seem to be at a loss to explain why women should choose to do something they enjoy instead of something else that pleases their husbands, and put it down to inexplicable fancy.

32 *discovered*. See Part I, Chapter 7, note 15.

They are so perpetually alarmed with the Apprehensions of these and the like impending Dangers, that they can neither sleep quietly in their Beds, nor have any Relish for the common Pleasures or Amusements of Life. When they meet an Acquaintance in the Morning, the first Question is about the Sun's Health; how he looked at his Setting and Rising, and what Hopes they have to avoid the Stroke of the approaching Comet. This Conversation they are apt to run into with the same Temper that Boys discover in delighting to hear terrible Stories of Sprites and Hobgoblins, which they greedily listen to, and dare not go to Bed for fear.

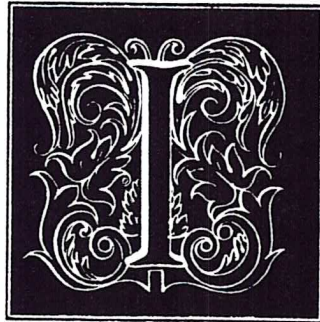
The Women of the Island have Abundance of Vivacity; they contemn their Husbands, and are exceedingly fond of Strangers, whereof there is always a considerable Number from the Continent below, attending at Court, either upon Affairs of the several Towns and Corporations, or their own particular Occasions; but are much despised, because they want the same Endowments. Among these the Ladies chuse their Gallants: But the Vexation is, that they act with too much Ease and Security; for the Husband is always so wrapp'd in Speculation, that the Mistress and Lover may proceed to the greatest Familiarities before his Face, if he be but provided with Paper and Implements, and without his Flapper at his Side.

The Wives and Daughters lament their Confinement to the Island, although I think it the most delicious Spot of Ground in the World; and although they live here in the greatest Plenty and Magnificence, and are allowed to do whatever they please: They long to see the World, and take the Diversions of the Metropolis, which they are not allowed to do without a particular Licence from the King; and this is not easy to be obtained, because the People of Quality have found by frequent Experience, how hard it is to persuade their Women to return from below. I was told, that a great Court Lady, who had several Children, is married to the prime Minister, the richest Subject in the Kingdom, a very graceful Person, extremely fond of her, and lives in the finest Palace of the Island; went down to *Lagado*, on the Pretence of Health, there hid her self for several Months, till the King sent a Warrant to search for her; and she was found in an obscure Eating-House all in Rags, having pawned her Cloaths to maintain an old deformed Footman, who beat her every Day, and in whose Company she was taken much against her Will. And although her Husband received her with all possible Kindness, and without the least Reproach; she soon after contrived to steal down again with all her Jewels, to the same Gallant, and hath not been heard of since.

This may perhaps pass with the Reader rather for an *European* or *English* Story, than for one of a Country so remote. But he may please to consider, that the Caprices of Womanankind are not limited by any Climate or Nation; and that they are much more uniform than can be easily imagined.

In about a Month's Time I had made a tolerable Proficiency in their Language, and was able to answer most of the King's Questions, when I had the Honour to attend him. His Majesty discovered not the least Curiosity to enquire into the Laws, Government, History, Religion, or Manners of the Countries where I had been; but confined his Questions to the State of Mathematicks, and received the Account I gave him, with great Contempt and Indifference, though often roused by his *Flapper* on each Side.

A Phenomenon solved by Modern Philosophy and Astronomy. The Laputians' great improvements in the latter. The King's method of suppressing Insurrections.



DESIRED Leave of this Prince to see the Curiosities of the Island; which he was graciously pleased to grant, and ordered my Tutor to attend me. I chiefly wanted to know to what Cause in Art or in Nature, it owed its several Motions; whereof I will now give a

philosophical Account to the Reader.

The Flying or Floating Island is exactly circular; its Diameter 7837 Yards, or about four Miles and an Half, and consequently contains ten Thousand Acres. It is three Hundred Yards thick. The Bottom, or under Surface, which appears to those who view it from below, is one even regular Plate of Adamant, shooting up to the Height of about two Hundred Yards. Above it lye the several Minerals in their usual Order; and over all is a Coat of rich Mould ten or twelve Foot deep. The Declivity of the upper Surface, from the Circumference to the Center, is the natural Cause why all the Dews and Rains which fall upon the Island, are conveyed in small Rivulets towards the Middle, where they are emptied into four large Basons, each of about Half a Mile in Circuit, and two Hundred Yards distant from the Center. From these Basons the Water is continually exhaled by the Sun in the Day-time, which effectu-

I I will now give a philosophical Account to the Reader. The description that follows of the way in which Laputa works is a satirical imitation of papers published in *The Philosophical Transactions of the Royal Society*. Nevertheless, Swift manages to make something quite impossible sound very plausible by using the scientific knowledge and terminology of his day. This particular passage is excellent science fiction in the modern sense.

2 ten Thousand Acres. The area of Laputa is about seven-tenths that of the island of Manhattan.

3 Adamant. Any of three things:

First, it is an imaginary stone of impenetrable hardness and strength.

Second, it is the hardest substance that actually exists—diamond. In fact, "diamond" is a distorted version of the word "adamant." The hardness of diamond is not to be equated with strength, however. Diamond is brittle and can be made to shatter quite easily, a fact on which the art of diamond cutting depends.

The third meaning arises in a more complicated way. "Adamant" is from Greek words meaning "uncameable" while *adamant* is a Latin word meaning "love." Magnetism was thought to be a phenomenon analogous to love since magnets "attracted" iron. "Adamant" came to be used for a magnet and, by confusion, "adamant" came to be used for it.

Swift uses the word in at least two ways. Undoubtedly, the adamant that underlies Laputa is extremely hard, but it also possesses magnetic properties.

- 4 *exhaled*. Evaporated.
- 5 *prevents their overflowing*. This is an interesting description of a cycling of resources. Swift is reaching toward a closed ecology for Laputa.

6 *the highest Clouds cannot rise above two Miles*. This is an underestimate. Cirrus clouds will form as high as eight miles. However, if Laputa rises to heights of more than two miles, it would be above the significant clouds and will have little to fear from rainfall.

7 *Astronomers Cave*. There was, apparently, a cave at the Royal Observatory in Paris at this time.

8 *Load-stone*. A mineral with natural magnetic properties called, more properly, "magnetic" or "magnetite oxide of iron," having the formula, Fe_3O_4 . It can be used, loosely, for any magnet, even one artificially made of steel or of some metallic alloy, though such a use of the word is not heard in contemporary times.

9 *Weaver's Shuttle*. Shaped like a cylinder which tapers on each end.

10 *three Yards over*. That is, three yards across.

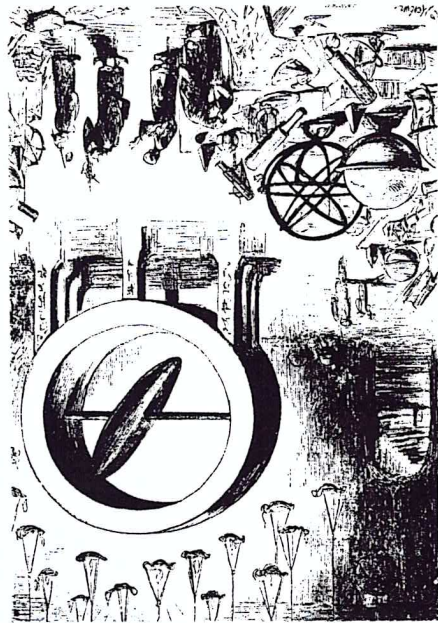
ally prevents their overflowing. Besides, as it is in the Power of the Monarch to raise the Island above the Region of Clouds and Vapours, he can prevent the falling of Dews and Rains whenever he pleases. For the highest Clouds cannot rise above two Miles, as Naturalists agree, at least they were never known to do so in that

Country.

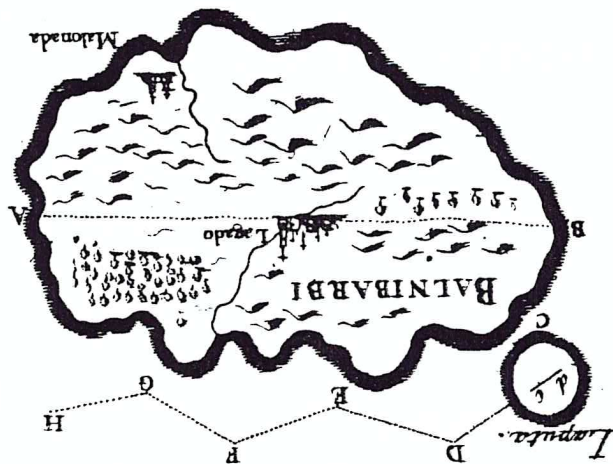
At the Center of the *Island* there is a Chasm about fifty Yards in Diameter, from whence the Astronomers descend into a large Dome, which is therefore called *Flindona Cagnole*, or the *Astronomers Cave*; situated at the Depth of an Hundred Yards beneath the upper Surface of the Adamant. In this Cave are Twenty Lamps continually burning, which from the Reflection of the Adamant cast a strong Light into every Part. The Place is stored with great Variety of Sextants, Quadrants, Telescopes, Astrolabes, and other Astronomical Instruments. But the greatest Curiosity, upon which the Fate of the Island depends, is a Load-stone of a prodigious Size, in Shape resembling a Weaver's Shuttle. It is in Length six Yards, and in the thickest Part at least three Yards over. This Magnet is sustained by a very strong Axle of Adamant, passing through its Middle, upon which it plays, and is poised so exactly that the weakest Hand can turn it. It is hooped round with an hollow Cylinder of Adamant, four Foot deep, as many thick, and twelve Yards in Diameter, placed horizontally, and supported by Eight Adamantine Feet, each Six Yards high. In the Middle of the Concave Side there is a Groove Twelve Inches deep, in which the Axle are lodged, and turned round as there

is Occasion.

This Stone cannot be moved from its Place by any Force, be-



"By Means of this Load-stone, the Island is made to rise and fall." T. Marten, 1865. Courtesy, Library of Congress.



Map from first edition, London, 1726. Courtesy, Rare Book Division, The New York Public Library.

cause the Hoop and its Feet are one continued Piece with that Body of Adamant which constitutes the Bottom of the Island. By Means of this Load-stone, the Island is made to rise and fall, and move from one Place to another. For, with respect to that Part of the Earth over which the Monarch presides, the Stone is ended at one of its Sides with an attractive Power, and at the other with a repulsive. Upon placing the Magnet erect with its attracting End towards the Earth, the Island descends; but when the repelling Extremity points downwards, the Island mounts directly upwards. When the Position of the Stone is oblique, the Motion of the Island is so too. For in this Magnet the Forces always act in Lines parallel to its Direction.

By this oblique Motion the Island is conveyed to different Parts of the Monarch's Dominions. To explain the Manner of its Progress, let *A B* represent a Line drawn cross the Dominions of *Balnibarbi*; let the Line *c d* represent the Load-stone, of which let *d* be the repelling End, and *c* the attracting End, the Island being over *C*; let the Stone be placed in the Position *c d* with its repelling End downwards; then the Island will be driven upwards obliquely towards *D*. When it is arrived at *D*, let the Stone be turned upon its Axle till its attracting End points towards *E*, and then the Island will be carried obliquely towards *E*; where if the Stone be again turned upon its Axle till it stands in the Position *E F*, with its repelling Point downwards, the Island will rise obliquely towards *F*, where by directing the attracting End towards *C*, the Island may be carried to *C*, and from *C* to *H*, by turning the Stone, so as to make its repelling Extremity point directly downwards. And thus by changing the Situation of the Stone as often as there is Occasion, the Island is made to rise and fall by

11 at one of its Sides with an attractive Power, and at the other with a repulsive. Every magnet has two poles—a north pole and a south pole. Two north poles repel each other, as do two south poles. A north pole will, however, attract a south pole and vice versa. Thus, if you place the north pole of one magnet near the south pole of a second, you will experience an attractive force between them. If you reverse the first magnet and place its south pole near the south pole of the second, you will feel a repulsive force. The first magnet will thus seem to attract with one end and repel with the other.

If, however, a magnet is attracting a piece of unmagnetized iron or steel, either pole will attract equally well. To have Laputa act by magnetic force, as here described, would require the earth below it to be a permanent magnetic north pole (or south pole) and the magnet on Laputa to be of impossible strength.

12 Upon placing the Magnet erect . . . the Island descends; but when the repelling Extremity points downwards, the Island mounts directly upwards. Swift is not making this up out of his head. The English physicist, William Gilbert (1540–1603), and also Johannes Kepler after him, speculated that the planetary motions were the result of magnetic forces. Of course, Newton's work had utterly outdated these notions, but Swift would not accept the views of the detested Newton in explaining Laputa. Swift would have perceived a remarkable feat of science fictional foresight if he had used the (probably impossible) notion of "antigravity" instead.

13 the Forces always act in Lines parallel to its Direction. This is reminiscent of Newton's second law of motion, but Swift is wrong just the same. If the loadstone acted by a straightforward attraction or repulsion of the ground, then if it were positioned obliquely, Laputa would still move up or down, but less rapidly, the speed depending on the cosine of the angle the stone makes to the vertical. If it were positioned horizontally, Laputa wouldn't move at all.

14 oblique Motion. Some commentators think this is a reference to the politics of Walpole, which controlled the English government and court (Laputa) and which were cautious, rather than straightforward.

15 the Manner of its Progress. Swift explains by a lengthy paragraph and a map, both of which are clearly unnecessary, since they pretend to explain something which does not require a great deal of explanation, and in the end do not succeed in being terribly enlightening. He is here again satirizing the pompous style of many of the papers in the *Transactions*.

16 Balnibarbi. The fixed island in the ocean over which Laputa hovers. If the map is to be taken as in scale, then, from the measurements already given for Laputa, Balnibarbi would seem to be thirty-five miles long east and west and twenty miles north and

south, for an approximate area of seven hundred square miles. This would make it three-quarters as large as the state of Rhode Island.

Balibarbi may well represent Ireland over which the British court (Laputa) hovers threateningly.

17 *this island cannot move beyond the Extent of the Dominions below.* Swift thus explains why Laputa never wanders over known areas of the world. He did not bother to explain why Brobdingnagian life did not spread out over the rest of the world, or why ordinary forms of life did not spread into Lilliput or Blefuscu.

18 *When the Stone is put parallel to the Plane of the Horizon . . . no Motion can ensue.* The argument sounds correct, but the lodestone can only be kept parallel to the plane of the horizon if force is exerted upon it. If it is allowed to swing freely, then the attractive end will swing so as to point downward and the repulsive end will swing so as to point upward. Laputa will then crash. In order to prevent this, enough force must be exerted on the lodestone to bring it parallel, as would be required to maintain the island in mid-air against the downward pull of its weight. Further force would be required to so twist the lodestone as to actually force Laputa upward. If, however, we forget that and follow Swift's earlier statement that the island moved in the direction of the line from one end of the lodestone to the other, then when that line is horizontal, Laputa should move horizontally.

In short, Swift's mechanism to keep Laputa aloft and in motion wouldn't really work, but I suppose that's no surprise to anyone. The explanation sounds scientific and impressive and that's all that counts.

19 *their largest Telescopes do not exceed three Feet.* Swift means three feet in length. In his time, it was difficult to make parabolic lenses, and it was only the lenses that would not distort. Therefore, only the mid-portion of shallow spherical lenses were used, since this mid-portion was close enough to parabolic to minimize the distortion. Those mid-portion, however, had a long focal length so that very long telescopes had to be used. In fact, the greater the magnification of a telescope, the longer it had to be. If good parabolic lenses were made, the full width of which could be used, these would make great magnifications. That would make possible great magnifications in short telescopes. Swift doesn't mention parabolic lenses, but it is possible he had them in mind.

20 *those of a Hundred.* The Dutch astronomer, Christian Huygens (1629-1695), in the 1660s, used a telescope 123 feet long, and in 1673, the German astronomer, Johannes Hevelius (1611-1687) used one that was 150 feet long. In 1722, just four years before *Gulliver's Travels* was published, the English astronomer, James Bradley (1693-1762) used one that was 212 feet long. It was in 1757, thirty-one years after *Gulliver's Travels* was published, that optical advances made achromatic parabolic lenses possible and the long telescopes vanished. Comparatively short

Turns in an oblique Direction; and by those alternate Risings and Fallings (the Obliquity being not considerable) is conveyed from one Part of the Dominions to the other.

But it must be observed, that this Island cannot move beyond

the Extent of the Dominions below; nor can it rise above the Height of four Miles. For which the Astronomers (who have written large Systems concerning the Stone) assign the following Reason: That the Magnetic Virtue does not extend beyond the Distance of four Miles, and that the Mineral which acts upon the Stone in the Bowls of the Earth, and in the Sea about six Leagues distant from the Shore, is not diffused through the whole Globe, but terminated with the Limits of the King's Dominions: And it was easy from the great Advantage of such a superior Situation, for a Prince to bring under his Obedience whatever Country lay within the Attraction of that Magnet.

When the Stone is put parallel to the Plane of the Horizon, the Island standeth still; for in that Case, the Extremities of it being at equal Distance from the Earth, act with equal Force, the one in drawing downwards, the other in pushing upwards; and consequently no Motion can ensue.

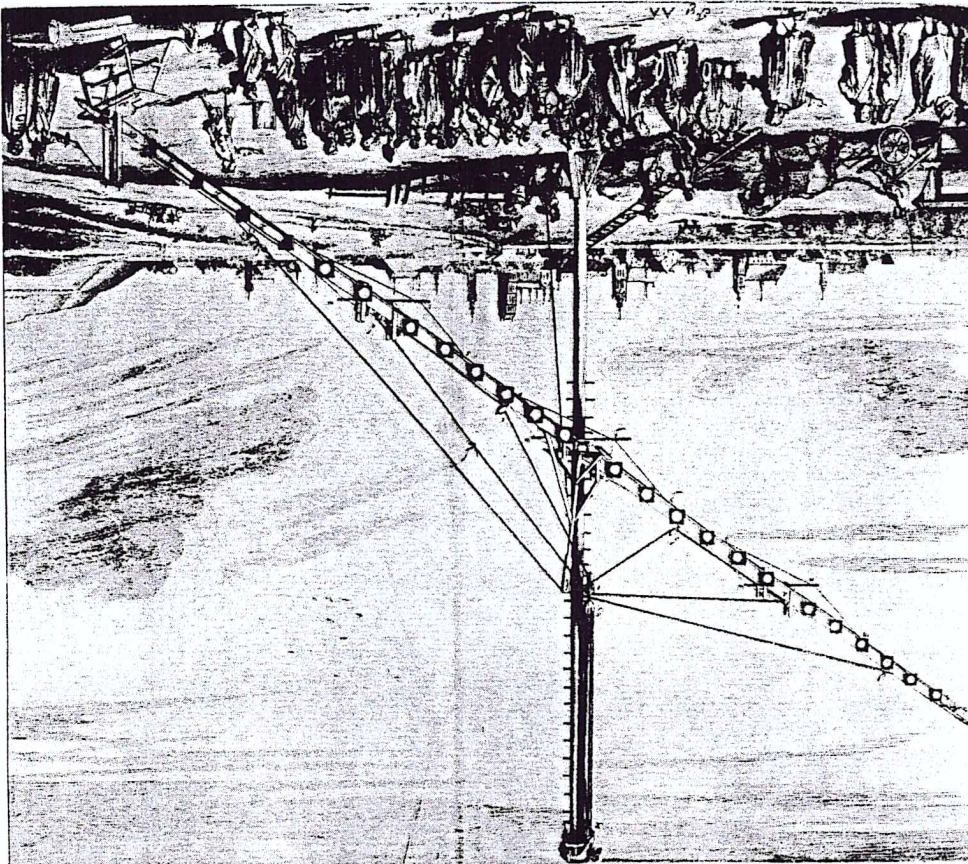
This Load-stone is under the Care of certain Astronomers, who

from Time to Time give it such Positions as the Monarch directs. They spend the greatest Part of their Lives in observing the celestial Bodies, which they do by the Assistance of Glasses, far exceeding ours in Goodness. For, although their largest Telescopes do not exceed three Feet, they magnify much more than those of a Hundred with us, and shew the Stars with greater Clearness. This Advantage hath enabled them to extend their Discoveries much farther than our Astronomers in Europe. They have made a Catalogue of ten Thousand fixed Stars, whereas the largest of ours do not contain above one third Part of that Number. They have likewise discovered two lesser Stars, or *Satellites*, which revolve about Mars; whereof the innermost is distant from the Center of the primary Planet exactly three of his Diameters, and the outermost five; the former revolves in the Space of ten Hours, and the latter in Twenty-one and an Half; so that the Squares of their periodical Times, are very near in the same Proportion with the Cubes of their Distance from the Center of Mars; which evidently shews them to be governed by the same Law of Gravitation, that influences the other heavenly Bodies.

They have observed Ninety-three different Comets, and settled their Periods with great Exactness. If this be true, (and they affirm it with great Confidence) it is much to be wished that their Observations were made publick; whereby the Theory of Comets, which at present is very lame and defective, might be brought to the same Perfection with other Parts of Astronomy.

The King would be the most absolute Prince in the Universe, if he could but prevail on a Ministry to join with him; but these having their Estates below on the Continent, and considering that the Office of a Favourite hath a very uncertain Tenure, would never consent to the enslaving their Country.

If any Town should engage in Rebellion or Mutiny, fall into violent Factions, or refuse to pay the usual Tribute; the King hath two Methods of reducing them to Obedience. The first and the mildest Course is by keeping the Island hovering over such a



Telescope. Courtesy, Library of Congress.

ones of better magnification, like those of the Laputans, came into existence and, though Swift did not live to see it, he had scored a nice bit of prediction.

21 *two lesser stars, or satellites, which revolve about*

Mars. This one is a far more interesting prediction and is, in fact, frequently cited as the most remarkable scientific prediction ever made in literature.

For, as a matter of fact, although such information was not known in Swift's time, Mars does possess two satellites and only two. Those two satellites, however, were not discovered until 1877, 151 years after

the publication of *Gulliver's Travels*. Only then did the world catch up to Laputan astronomy.

This has aroused considerable awe and led to speculation about Swift's having arcane knowledge of some sort or other. (I remember at least one tongue-in-check article suggesting Swift was a Martian.)

Actually, the prediction is not quite as startling as it sounds. In 1610, Galileo had discovered four satellites revolving about Jupiter. Since Earth had one and Jupiter had four satellites, Kepler, who was fond of number mysticism, at once speculated that Mars, which lay between Earth and Jupiter, ought to have two satellites.

That notion was very much in the air in Swift's time and Swift used it since it worked in convenient

ly for his purposes. That Mars actually does have two satellites is pure coincidence, for it is now known that Jupiter has many more than four satellites. The present number of known Jovian satellites is thirteen.

22 *the innermost is distant from the center of the primary planet exactly three of his Diameters, and the outermost*

saying is that the inner satellite of Mars is 12,660 miles from the center of Mars and the outer satellite is 21,100.

The actual satellites proved indeed to be very close to Mars and this, too, is considered part of the marvel of Swift's prediction. That, however, is only a matter of common sense on Swift's part. If the satellites were farther removed from Mars they would be easy to discover. It is their closeness to Mars (and their smallness) that obscures them in the brightness of the Martian glow and that prevented their discovery for so long.

If we consider the actual satellites, Phobos (the inner one) is 3,810 miles from the center of Mars, and Deimos (the outer one) is 14,600 miles from the center. The real satellites are even closer to Mars than Swift guessed.

23 *the former revolves in the Space of ten Hours, and the latter in Twenty-one and an Half. In actual fact, Rhobos revolves about Mars in 7.65 hours and Deimos in 30.3 hours. The correspondence looks close enough to make Swift's guess all the more amazing. Given the distance of a satellite from a planet, however, and guessing at the mass of the planet, you can calculate the orbital periods of the satellite.*

24 *the Squares of their periodical Times, are . . . in the same Proportion with the Cubes of their Distance from the Center of Mass. This is Kepler's third law of planetary motion, which Swift clearly used to work out his periods of revolution.*

25 *governed by the same Laws of Gravitation. From Newton's law of gravitation, it is easy to deduce that Kepler's laws of planetary motion must exist. If the Martian satellites obey Kepler's laws, therefore, that is a strong piece of evidence that Newton's gravitation theory is correct. This is one place where Swift brings himself to refer to Newton's work without sneering.*

26 *the Theory of Comets, which at present is very lame and defective. In Europe, only one comet had had its orbit worked out (see Chapter 2 of this part, note 24), and as it had not yet returned, one couldn't be sure whether that one calculation was correct or not.*

27 *having their Estates below on the Continent. Many Englishmen of the upper classes held estates in Ireland and might have been expected, in theory, to find it in their self-interest for the land to prosper. Unfortunately, many absentee English landlords had a tendency to squeeze their Irish tenants to the limit, choosing immediate revenue over a healthy long-term investment. This was made the easier since they did not visit the estates and could not with their own eyes see the misery they caused.*

28 *deprive them of the Benefit of Sun and the Rain. This is usually taken to symbolize the possible interference of the English government with Irish trade, thus reducing Ireland to economic penury.*

29 *pelted from above with great Stones. This may be, perhaps, the first description of aerial bombardment in literature.*

28

Town, and the Lands about it; whereby he can deprive them of the Benefit of the Sun and the Rain, and consequently afflict the Inhabitants with Dearth and Diseases. And if the Crime deserve it, they are at the same time pelted from above with great Stones, against which they have no Defence, but by creeping into Cellars, or Caves, while the Roofs of their Houses are beaten to Pieces. But if they still continue obstinate, or offer to raise Insurrections; he proceeds to the last Remedy, by letting the Island drop directly upon their Heads, which makes a universal Destruction both of Houses and Men. However, this is an extremity to which the Prince is seldom driven, neither indeed is he willing to put it in Execution; nor dare his Ministers advise him to an Action, which as it would render them odious to the People, so it would be a great Damage to their own Estates that lie all below; for the Island is the King's Demesne.

But there is still indeed a more weighty Reason, why the Kings of this Country have been always averse from executing so terrible an Action, unless upon the utmost Necessity. For if the Town in-

29



"They have observed ninety-three different Comets." Herbert Cole, 1899.

30 tended to be destroyed should have in it any tall Rocks, as it generally falls out in the larger Cities; a Situation probably chosen at first with a View to prevent such a Catastrophe: Or if it abound in high Spires or Pillars of Stone, a sudden Fall might endanger the Bottom or under Surface of the Island, which although it consist as I have said, of one entire Adamant two hundred Yards thick, might happen to crack by too great a Choque, or burst by approaching too near the Fires from the Houses below; as the Backs both of Iron and Stone will often do in our Chimneys. Of all this the People are well apprized, and understand how far to carry their Obstnacy, where their Liberty or Property is concerned. And the King, when he is highest provoked, and most determined to press a City to Rubbish, orders the Island to descend with great Gentleness, out of a Pretence of Tenderness to his People, but indeed for fear of breaking the Adamantine Bottom; in which Case it is the Opinion of all their Philosophers, that the Load-stone could no longer hold it up, and the whole Mass would fall to the Ground.

31 About three years before my arrival among them, while the King was in his progress over his dominions, there happened an extraordinary accident which had like to have put a period to the fate of that monarchy, at least as it is now instituted. Lindalino, the second city in the kingdom, was the first his Majesty visited in his progress. Three days after his departure the inhabitants, who had often complained of great oppressions, shut the town gates, seized on the governor, and with incredible speed and labour erected four large towers, one at every corner of the city (which is an exact square), equal in height to a strong pointed rock that stands directly in the centre of the city. Upon the top of each tower, as well as upon the rock, they fixed a great loadstone, and in case their design should fail, they had provided a vast quantity of the most combustible fuel, hoping to burst therewith the adamantine bottom of the island, if the loadstone project should miscarry.

32 It was eight months before the King had perfect notice that the Lindalinians were in rebellion. He then commanded that the island should be wafted over the city. The people were unanimous, and had laid in store of provisions. The King hovered over them several days to deprive them of the sun and the rain. He ordered many packhreads to be let down, yet not a person offered to send up a petition, but instead thereof, very bold demands, the redress of all their grievances, great immunities, the choice of their own governor, and other the like exorbitancies. Upon which his Majesty commanded all the inhabitants of the island to cast great stones from the lower gallery into the town: but the citizens had provided against this mischief by conveying their persons and effects into the four towers, and other strong buildings, and vaults underground.

33 The King being now determined to reduce this proud people, ordered that the island should descend gently within forty yards of the top of the towers and rock. This was accordingly done; but the officers employed in that work found the descent much speedier than usual, and by turning the loadstone could not without great difficulty keep it in a firm position, but found the island inclining to fall. They sent the King immediate intelligence of this astonishing event, and begged his Majesty's permission to raise the island higher: the King consented, a general council was called, and the officers of the loadstone

33 *combustible fuel*. Swift probably refers to his own pamphlets, which proved really combustible, firing as such a rage in Ireland that the entire coinage proposal was called off.

36 *progress*. See Part II, Chapter 8, note 3.

35 *Lindalino*. Generally taken to represent Dublin.

34 About three years before my arrival among them, Swift now goes on to talk of the specific case of the attempt to foist upon the Irish a debased coinage without their consent. This was striking pretty near the crown itself, since William Wood, the man who was to produce the coins, had bought the privilege from the duchess of Kendal, who was the king's mistress. To avoid trouble, this last portion of the chapter was omitted when *Gulliver's Travels* was first published and was not included until an edition of 1899. Even the 1735 Faulkner edition which is used in this book as text and which incorporated most of Swift's corrections, omitted this passage—which is here added.

33 *crack by too great a Choque*. Read literally, the adamant that undercoats Laputa would seem to be diamond, which is indeed brittle enough to crack under such circumstances (a shock). Read symbolically, Swift seems to be saying that the English constitution (which is the basis of the English court system) could not withstand acts so unpopular as to give rise to extensive popular resistance. In the century before *Gulliver's Travels* was published, popular resistance resulted in the execution of one king, Charles I, and the exile of another, James II. George I was by no means popular, and waiting in the wings was the Pretender, who called himself James III, and with whom the Tories were in sympathy.

32 *Pillars of Stone*. The Irish merchants. Swift takes no account of the submerged Catholics, of course, of whom the Irish clergy (the Anglicans rather than the submerged Catholics, of course, of whom

31 *high Spires*. The Irish clergy (the Anglicans rather than the submerged Catholics, of course, of whom Swift takes no account).

30 *tall Rocks*. Swift is now talking about the resistance of Ireland to English tyranny, a resistance he supported, thereby becoming a hero to the Irish. To avoid problems, however, he speaks symbolically here. The tall rocks, for instance, are taken to refer to the Irish-based nobility.

38 *iron mineral.* Magneite (see Chapter 3 of this

part, note 8).

39 *forced to give the town their own conditions.* This is a clear reference to the failure of the coinage scheme in August 1725, just a year before *Gulliver's Travels* was published.

40 *kill the King.* Here Swift as much as says that Charles I. would have followed if the coinage proposal had not been withdrawn. No wonder the printers cautiously refused to print the passage.

41 *neither the King nor either of his two elder Sons, are permitted to leave the Island.* Such a rule did indeed apply to George I. and Swift mentions it to heighten the identification of the King of Laputa with George I. George, however, managed to get the rule modified and visited Hanover periodically, to the indignation of many of his British subjects.

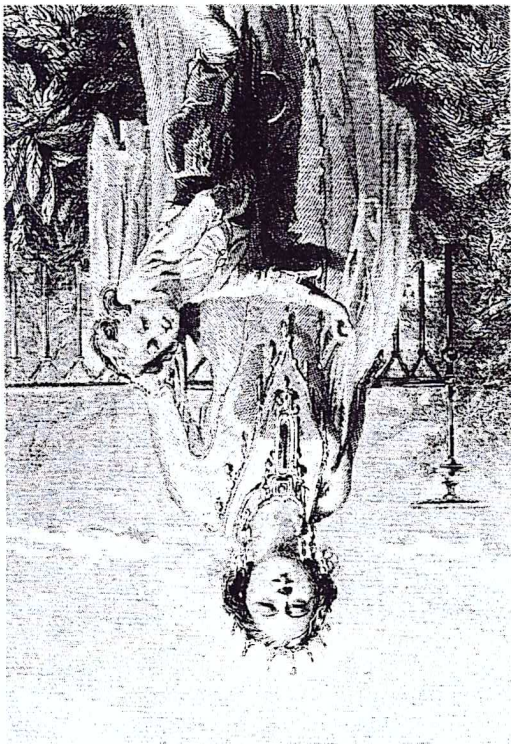
ordered to attend. One of the oldest and expertest among them obtained leave to try an experiment. He took a strong line of an hundred yards, and the island being raised over the town above the attracting power they had felt, he fastened a piece of adamant to the end of his line, which had in it a mixture of iron mineral, of the same nature with that whereof the bottom or lower surface of the island is composed, and from the lower gallery let it down slowly towards the top of the towers. The adamant was not descended four yards, before the officer felt it drawn so strongly downwards that he could hardly pull it back. He then threw down several small pieces of adamant, and observed that they were all violently attracted by the top of the tower. The same experiment was made on the other three towers, and on the rock with the same effect.

This incident broke entirely the King's measures, and (to dwell no longer on other circumstances) he was forced to give the town their own conditions.

I was assured by a great minister that if the island had descended so near the town as not to be able to raise itself, the citizens were determined to fix it for ever, to kill the King and all his servants, and entirely change the government.

41 By a fundamental Law of this Realm, neither the King nor

either of his two elder Sons, are permitted to leave the Island; nor the Queen till she is past Child-bearing.



The queen of Laputa. Gaurani, 1850s. Courtesy, Library of Congress.

Women, Tradesmen, Flappers, and Court-Pages. In other words, Gulliver could find companionship only with nonintellectuals. These included men of the lower classes and all women. As always, it was taken for granted that women, by the mere fact of being women, were not intellectual.



The Author leaves Laputa, is conveyed to Balnibarbi, arrives at the Metropolis. A description of the Metropolis and the Country adjoining. The Author hospitably received by a Great Lord. His Conversation with that Lord.

ALTHOUGH I cannot say that I was ill treated in this Island, yet I must confess I thought my self too much neglected, not without some Degree of Contempt. For neither Prince nor People appeared to be curious in any Part of Knowledge, except Mathematicks and Musick, wherein I was far their inferior, and upon that Account very little regarded.

On the other Side, after having seen all the Curiosities of the Island, I was very desirous to leave it, being heartily weary of those People. They were indeed excellent in two Sciences for which I have great Esteem, and wherein I am not unversed; but at the same time so abstracted and involved in Speculation, that I never met with such disagreeable Companions. I conversed only with Women, Tradesmen, Flappers, and Court-Pages, during two Months of my Abode there; by which at last I rendered my self extremely contemptible; yet these were the only People from whom I could ever receive a reasonable Answer.

I had obtained by hard Study a good Degree of Knowledge in their Language: I was weary of being confined to an Island where I received so little Countenance; and resolved to leave it with the first Opportunity.

2 the 16th Day of February. It is now 1708.

3 *Munodi*. There is considerable disagreement as to whom Lord Munodi might represent. The easiest way out is to suggest he is a combination of Oxford and Bolingbroke (see Part I, Chapter 2, note 17), the fallen Tory leaders. Some suggest, though, that he is a Viscount Middleton, Lord Chancellor of Ireland, who, although a Whig, sided with Swift in the matter of the coinage dispute. Others say it was Sir William Temple (1628–1699).
Swift was Temple's secretary in 1689, and again from 1696 to 1699, and Temple wrote an essay, "Of Ancient and Modern Learning," in which he strongly favored what was ancient—as did Swift in his *Battle of the Books*, published in 1704. The identification of Munodi with Temple seems to make sense since, as we shall see, Munodi is a strong advocate of the ancient ways of doing things.

4 *admiring*. See Part I, Chapter 1, note 26.

There was a great Lord at Court, nearly related to the King, and for that Reason alone used with Respect. He was universally

reckoned the most ignorant and stupid Person among them. He had performed many eminent Services for the Crown, had great natural and acquired Parts, adorned with Integrity and Honour; but so ill an Ear for Music, that his Detractors reported he had been often known to beat Time in the wrong Place; neither could his Tutors without extreme Difficulty teach him to demonstrate the most easy Proposition in the Mathematicks. He was pleased to shew me many Marks of Favour, often did me the Honour of a Visit, desired to be informed in the Affairs of Europe, the Laws and Customs, the Manners and Learning of the several Countries where I had travelled. He listened to me with great Attention, and made very wise Observations on all I spoke. He had two *Flappers* attending him for State, but never made use of them except at Court, and in Visits of Ceremony; and would always command them to withdraw when we were alone together.

I intreated this illustrious Person to intercede in my Behalf with his Majesty for Leave to depart; which he accordingly did, as he was pleased to tell me, with Regret: For, indeed he had made me several Offers very advantageous, which however I refused with Expressions of the highest Acknowledgment.

On the 16th Day of February, I took Leave of his Majesty and

the Court. The King made me a Present to the Value of about two Hundred Pounds *English*; and my Protector his Kinsman as much more, together with a Letter of Recommendation to a Friend of his in *Lagado*, the Metropolis: The Island being then hovering over a Mountain about two Miles from it, I was let down from the lowest Gallery, in the same Manner as I had been taken up.

The Continent, as far as it is subject to the Monarch of the *Flying Island*, passeth under the general Name of *Balnibarbi*; and the Metropolis, as I said before, is called *Lagado*. I felt some little Satisfaction in finding my self on firm Ground. I walked to the City without any Concern, being clad like one of the Natives, and sufficiently instructed to converse with them. I soon found out the Person's House to whom I was recommended; presented my Letter from his Friend the Grandee in the Island, and was received with much Kindness. This great Lord, whose Name was *Munodi*, ordered me an Apartment in his own House, where I continued during my Stay, and was entertained in a most hospitable Manner. The next Morning after my Arrival he took me in his Chariot to see the Town, which is about half the Bigness of *London*; but

the Houses very strangely built, and most of them out of Repair. The People in the Streets walked fast, looked wild, their Eyes fixed, and were generally in Rags. We passed through one of the Town Gates, and went about three Miles into the Country, where I saw many Labourers working with several Sorts of Tools in the Ground but was not able to conjecture what they were about; neither did I observe any Expectation either of Corn or Grass, although the Soil appeared to be excellent. I could not forbear admiring at these

odd Appearances both in Town and Country; and I made bold to desire my Conductor, that he would be pleased to explain to me what could be meant by so many busy Heads, Hands and Faces, both in the Streets and the Fields, because I did not discover any good Effects they produced; but on the contrary, I never knew a