New Concept English
Book II

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1967 Longman

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Lesson 1 | A private conversation

Last week I went to the theatre. I had a very good seat. The play was very interesting. I did not enjoy it. A young man and a young woman were sitting behind me. They were talking loudly. I got very angry. I could not hear the actors. I turned round. I looked at the man and the woman angrily. They did not pay any attention. In the end, I could not bear it. I turned round again. 'I can't hear a word!' I said angrily.

'It's none of your business,' the young man said rudely. 'This is a private conversation!'

Lesson 2 | Breakfast or lunch?

It was Sunday. I never get up early on Sundays. I sometimes stay in bed until lunchtime. Last Sunday I got up very late. I looked out of the window. It was dark outside. 'What a day!' I thought. 'It's raining again.' Just then, the telephone rang. It was my aunt Lucy. 'I've just arrived by train,' she said. 'I'm coming to see you.'

'But I'm still having breakfast,' I said.

'What are you doing?' she asked.

'I'm having breakfast,' I repeated.

'Dear me,' she said. 'Do you always get up so late? It's one o'clock!'

Lesson 3 | Please send me a card

Postcards always spoil my holidays. Last summer, I went to Italy. I visited museums and sat in public gardens. A friendly waiter taught me a few words of Italian. Then he lent me a book. I read a few lines, but I did not understand a word. Everyday I thought about postcards. My holidays passed quickly, but I did not send cards to my friends. On the last day I made a big decision. I got up early and bought thirty-seven cards. I spent the whole day in my room, but I did not write a single card!

Lesson 4 | An exciting trip

I have just received a letter from my brother, Tim. He is in Australia. He has been there for six months. Tim is an engineer. He is working for a big firm and he has already visited a great number of different places in Australia. He has just bought an Australian car and has gone to Alice Springs, a small town in the centre of Australia. He will soon visit Darwin. From there, he will fly to Perth. My brother has never been abroad before, so he is finding this trip very exciting.

Lesson 5 | No wrong numbers

Mr. James Scott has a garage in Silbury and now he has just bought another garage in Pinhurst. Pinhurst is only five miles from Silbury, but Mr. Scott cannot get a telephone for his new garage, so he has just bought twelve pigeons. Yesterday, a pigeon carried the first message from Pinhurst to Silbury. The bird covered the distance in three minutes. Up to now, Mr. Scott has sent a great many requests for spare parts and other urgent messages from one garage to the other. In this way, he has begun his own private 'telephone' service.

Lesson 6 | Percy Buttons

I have just moved to a house in Bridge Street. Yesterday a beggar knocked at my door. He asked me for a meal and a glass of beer. In return for this, the beggar stood on his head and sang songs. I gave him a meal. He ate the food and drank the beer. Then he put a piece of cheese in his pocket and went away. Later a neighbour told me about him. Everybody knows him. His name is Percy Buttons. He calls at every house in the street once a month and always asks for a meal and a glass of beer.

Lesson 7 | Too late

The plane was late and detectives were waiting at the airport all morning. They were expecting a valuable parcel of diamonds from South Africa. A few hours earlier, someone had told the police that thieves would try to steal the diamonds. When the plane arrived, some of the detectives were waiting inside the main building while others were waiting on the airfield. Two men took the parcel off the plane and carried it into the Customs House. While two detectives were keeping guard at the door, two others opened the parcel. To their surprise, the precious parcel was full of stones and sand!

Lesson 8 | The best and the worst

Joe Sanders has the most beautiful garden in our town. Nearly everybody enters for 'The Nicest Garden Competition' each year, but Joe wins every time. Bill Frith's garden is larger than Joe's. Bill works harder than Joe and grows more flowers and vegetables, but Joe's garden is more interesting. He has made neat paths and has built a wooden bridge over a pool. I like gardens too, but I do not like hard work. Every year I enter for the garden competition too, and I always win a little prize for the worst garden in the town!

Lesson 9 | A cold welcome

On Wednesday evening, we went to the Town Hall. It was the last day of the year and a large crowd of people had gathered under the Town Hall clock. It would strike twelve in twenty minutes' time. Fifteen minutes passed and then, at five to twelve, the clock stopped. The big minute hand did not move. We waited and waited, but nothing happened. Suddenly someone shouted. 'It's two minutes past twelve! The clock has stopped!' I looked at my watch. It was true. The big clock refused to welcome the New Year. At that moment, everybody began to laugh and sing.

Lesson 10 | Not for jazz

We have an old musical instrument. It is called a clavichord. It was made in Germany in 1681. Our clavichord is kept in the living room. It has belonged to our family for a long time. The instrument was bought by my grandfather many years ago. Recently it was damaged by a visitor. She tried to play jazz on it! She struck the keys too hard and two of the strings were broken. My father was shocked. Now we are not allowed to touch it. It is being repaired by a friend of my father's.

Lesson 11 | One good turn deserves another

I was having dinner at a restaurant when Tony Steele came in. Tony worked in a lawyer's office years ago, but he is now working at a bank. He gets a good salary, but he always borrows money from his friends and never pays it back. Tony saw me and came and sat at the same table. He has never borrowed money from me. While he was eating, I asked him to lend me twenty pounds. To my surprise, he gave me the money immediately. 'I have never borrowed any money from you,' Tony said, 'so now you can pay for my dinner!'

Lesson 12 | Goodbye and good luck

Our neighbour, Captain Charles Alison, will sail from Portsmouth tomorrow. We'll meet him at the harbour early in the morning. He will be in his small boat, *Topsail*. *Topsail* is a famous little boat. It has sailed across the Atlantic many times. Captain Alison will set out at eight o'clock, so we'll have plenty of time. We'll see his boat and then we'll say goodbye to him. He will be away for two months. We are very proud of him. He will take part in an important race across the Atlantic.

Lesson 13 | The Greenwood Boys

The Greenwood Boys are a group of pop singers. At present, they are visiting all parts of the country. They will be arriving here tomorrow. They will be coming by train and most of the young people in the town will be meeting them at the station. Tomorrow evening they will be singing at the Workers' Club. The Greenwood Boys will be staying for five days. During this time, they will give five performances. As usual, the police will have a difficult time. They will be trying to keep order. It is always the same on these occasions.

Lesson 14 | Do you speak English?

I had an amusing experience last year. After I had left a small village in the south of France, I drove on to the next town. On the way, a young man waved to me. I stopped and he asked me for a lift. As soon as he had got into the car, I said good morning to him in French and he replied in the same language. Apart from a few words, I do not know any French at all. Neither of us spoke during the journey. I had nearly reached the town, when the young man suddenly said, very slowly, "Do you speak English?' As I soon learnt, he was English himself!'

Lesson 15 | Good news

The secretary told me that Mr. Harmsworth would see me. I felt very nervous when I went into his office. He did not look up from his desk when I entered. After I had sat

down, he said that business was very bad. He told me that the firm could not afford to pay such large salaries. Twenty people had already left. I knew that my turn had come.

'Mr. Harmsworth,' I said in a weak voice.

'Don't interrupt,' he said.

Then he smiled and told me I would receive an extra thousand pounds a year!

Lesson 16 | A polite request

If you park your car in the wrong place, a traffic policeman will soon find it. You will be very lucky if he lets you go without a ticket. However, this does not always happen. Traffic police are sometimes very polite. During a holiday in Sweden, I found this note on my car: 'sir, we welcome you to our city. This is a "No Parking" area. You will enjoy your stay here if you pay attention to our street signs. This note is only a reminder.' If you receive a request like this, you cannot fail to obey it!

Lesson 17 | Always young

My aunt Jennifer is an actress. She must be at least thirty-five years old. In spite of this, she often appears on the stage as a young girl. Jennifer will have to take part in a new play soon. This time, she will be a girl of seventeen. In the play, she must appear in a bright red dress and long black stockings. Last year in another play, she had to wear short socks and a bright, orange-coloured dress. If anyone ever asks her how old she is, she always answers, 'Darling, it must be *terrible* to be grown up!'

Lesson 18 | He often does this!

After I had had lunch at a village pub, I looked for my bag. I had left it on a chair beside the door and now it wasn't there! As I was looking for it, the landlord came in.

'Did you have a good meal?" he asked.

'Yes, thank you,' I answered, 'but I can't pay the bill. I haven't got my bag.'

The landlord smiled and immediately went out. In a few minutes he returned with my bag and gave it back to me.

'I'm very sorry,' he said. 'My dog had taken it into the garden. He often does this!'

Lesson 19 | Sold out

'The play may begin at any moment,' I said.

'It may have begun already,' Susan answered.

I hurried to the ticket office. 'May I have two tickets please?' I asked.

'I'm sorry, we've sold out,' the girl said.

'What a pity!' Susan exclaimed.

Just then, a man hurried to the ticket office.

'Can I return these two tickets?' he asked.

'Certainly,' the girl said.

I went back to the ticket office at once.

'Could I have those two tickets please?' I asked.

'Certainly,' the girl said, 'but they're for next Wednesday's performance. Do you still want them?'

'I might as well have them,' I said sadly.

Lesson 20 | One man in a boat

Fishing is my favourite sport. I often fish for hours without catching anything. But this does not worry me. Some fishermen are unlucky. Instead of catching fish, they catch old boots and rubbish. I am even less lucky. I never catch anything—not even old boots. After having spent whole mornings on the river, I always go home with an empty bag. 'You must give up fishing!' my friends say. 'It's a waste of time.' But they don't realize one important thing. I'm not really interested in fishing. I am only interested in sitting in a boat and doing nothing at all!

Lesson 21 | Mad or not?

Aeroplanes are slowly driving me mad. I live near an airport and passing planes can be heard night and day. The airport was built years ago, but for some reason it could not be used then. Last year, however, it came into use. Over a hundred people must have been driven away from their homes by the noise. I am one of the few people left. Sometimes I think this house will be knocked down by a passing plane. I have been offered a large sum of money to go away, but I am determined to stay here. Everybody says I must be mad and they are probably right.

Lesson 22 | A glass envelope

My daughter, Jane, never dreamed of receiving a letter from a girl of her own age in Holland. Last year, we were travelling across the Channel and Jane put a piece of paper with her name and address on it into a bottle. She threw the bottle into the sea. She never thought of it again, but ten months later, she received a letter from a girl in Holland. Both girls write to each other regularly now. However, they have decided to use the post office. Letters will cost a little more, but they will certainly travel faster.

Lesson 23 | A new house

I had a letter from my sister yesterday. She lives in Nigeria. In her letter, she said that she would come to England next year. If she comes, she will get a surprise. We are now living in a beautiful new house in the country. Work on it had begun before my sister left. The house was completed five months ago. In my letter, I told her that she could stay with us. The house has many large rooms and there is a lovely garden. It is a very modern house, so it looks strange to some people. It must be the only modern house in the district.

Lesson 24 | It could be worse

I entered the hotel manager's office and sat down. I had just lost £50 and I felt very upset. 'I left the money in my room,' I said, 'and it's not there now.' The manager was sympathetic, but he could do nothing. 'Everyone's losing money these days,' he said. He started to complain about this wicked world but was interrupted by a knock at the door. A girl came in and put an envelope on his desk. It contained £50. 'I found this outside this gentleman's room,' she said. 'Well,' I said to the manager, 'there is still some honesty in this world!'

Lesson 25 | Do the English speak English?

I arrived in London at last. The railway station was big, black and dark. I did not know the way to my hotel, so I asked a porter. I not only spoke English very carefully, but very clearly as well. The porter, however, could not understand me. I repeated my question several times and at last he understood. he answered me, but he spoke neither slowly nor clearly. 'I am a foreigner,' I said. Then he spoke slowly, but I could not understand him. My teacher never spoke English like that! The porter and I looked at each other and smiled. Then he said something and I understood it. 'You'll soon learn English!' he said. I wonder. In England, each person speaks a different language. The English understand each other, but I don't understand them! Do they speak English?

Lesson 26 | The best art critics

I am an art student and I paint a lot of pictures. Many people pretend that they understand modern art. They always tell you what a picture is 'about'. Of course, many pictures are not 'about' anything. They are just pretty patterns. We like them in the same way that we like pretty curtain material. I think that young children often appreciate modern pictures better than anyone else. They notice more. My sister is only seven, but she always tells me whether my pictures are good or not. She came into my room yesterday.

'What are you doing?' she asked.

'I'm hanging this picture on the wall,' I answered. 'It's a new one. Do you like it?'

She looked at it critically for a moment. 'It's all right,' she said, 'but isn't it upside down?'

I looked at it again. She was right! It was!

Lesson 27 | A wet night

Late in the afternoon, the boys put up their tent in the middle of a field. As soon as this was done, they cooked a meal over an open fire. They were all hungry and the food smelled good. After a wonderful meal, they told stories and sang songs by the campfire. But some time later it began to rain. The boys felt tired so they put out the fire and crept into their tent. Their sleeping bags were warm and comfortable, so they all slept soundly. In the middle of the night, two boys woke up and began shouting. The tent was full of water! They all leapt out of their sleeping bags and hurried outside. It was raining heavily and they found that a stream had formed in the field. The stream wound its way across the field and then flowed right under their tent!

Lesson 28 | No parking

Jasper White is one of those rare people who believe in ancient myths. He has just bought a new house in the city, but ever since he moved in, he has had trouble with cars and their owners. When he returns home at night, he always finds that someone has parked a car outside his gate. Because of this, he has not been able to get his own car into his garage even once. Jasper has put up 'No Parking' signs outside his gate, but these have not had any effect. Now he has put an ugly stone head over the gate. It is one of the ugliest faces I have ever seen. I asked him what it was and he told me that it was Medusa, the Gorgon. Jasper hopes that she will turn cars and their owners to stone. But none of them has been turned to stone yet!

Lesson 29 | Taxi!

Captain Ben Fawcett has bought an unusual taxi and has begun a new service. The 'taxi' is a small Swiss aeroplane called a 'Pilatus Porter'. This wonderful plane can carry seven passengers. The most surprising thing about it, however, is that it can land anywhere: on snow, water, or even on a ploughed field. Captain Fawcett's first passenger was a doctor who flew from Birmingham to a lonely village in the Welsh mountains. Since then, Captain Fawcett has flown passengers to many unusual places. Once he landed on the roof of a block of flats and on another occasion, he landed in a deserted car park. Captain Fawcett has just refused a strange request from a businessman. The man wanted to fly to Rockall, a lonely island in the Atlantic Ocean, but Captain Fawcett did not take him because the trip was too dangerous.

Lesson 30 | Football or polo?

The Wayle is a small river that cuts across the park near my home. I like sitting by the Wayle on fine afternoons. It was warm last Sunday, so I went and sat on the river bank as usual. Some children were playing games on the bank and there were some people rowing on the river. Suddenly, one of the children kicked a ball very hard and it went towards a passing boat. Some people on the bank called out to the man in the boat, but he did not hear them. The ball struck him so hard that he nearly fell into the water. I turned to look at the children, but there weren't any in sight: they had all run away! The man laughed when he realized what had happened. He called out to the children and threw the ball back to the bank.

Lesson 31 | Success story

Yesterday afternoon Frank Hawkins was telling me about his experiences as a young man. Before he retired, Frank was the head of a very large business company, but as a boy he used to work in a small shop. It was his job to repair bicycles and at that time he used to work fourteen hours a day. He saved money for years and in 1958 he bought a small workshop of his own. In his twenties Frank used to make spare parts for aeroplanes. At that time he had two helpers. In a few years the small workshop had become a large factory which employed seven hundred and twenty-eight people. Frank smiled when he remembered his hard early years and the long road to success. He was still smiling when the door opened and his wife came in. She wanted him to repair their grandson's bicycle!

Lesson 32 | Shopping made easy

People are not so honest as they once were. The temptation to steal is greater than ever before—especially in large shops. A detective recently watched a well-dressed woman who always went into a large store on Monday mornings. One Monday, there were fewer people in the shop than usual when the woman came in, so it was easier for the detective to watch her. The woman first bought a few small articles. After a little time, she chose one of the most expensive dresses in the shop and handed it to an assistant who wrapped it up for her as quickly as possible. Then the woman simply took the parcel and walked out of the shop without paying. When she was arrested, the detective found out that the shop assistant was her daughter. The girl 'gave' her mother a free dress once a week!

Lesson 33 | Out of the darkness

Nearly a week passed before the girl was able to explain what had happened to her. One afternoon she set out from the coast in a small boat and was caught in a storm. Towards evening, the boat struck a rock and the girl jumped into the sea. Then she swam to the shore after spending the whole night in the water. During that time she covered a distance of eight miles. Early next morning, she saw a light ahead. She knew she was near the shore because the light was high up on the cliffs. On arriving at the shore, the girl struggled up the cliff towards the light she had seen. That was all she remembered. When she woke up a day later, she found herself in hospital.

Lesson 34 | Quick work

Dan Robinson has been worried all week. Last Tuesday he received a letter from the local police. In the letter he was asked to call at the station. Dan wondered why he was wanted by the police, but he went to the station yesterday and now he is not worried anymore. At the station, he was told by a smiling policeman that his bicycle had been found. Five days ago, the policeman told him, the bicycle was picked up in a small village four hundred miles away. It is now being sent to his home by train. Dan was most surprised when he heard the news. He was amused too, because he never expected the bicycle to be found. It was stolen twenty years ago when Dan was a boy of fifteen!

Lesson 35 | Stop thief!

Roy Trenton used to drive a taxi. A short while ago, however, he became a bus driver and he has not regretted it. He is finding his new work far more exciting. When he was driving along Catford Street recently, he saw two thieves rush out of a shop and run towards a waiting car. One of them was carrying a bag full of money. Roy acted quickly and drove the bus straight at the thieves. The one with the money got such a fright that he dropped the bag. As the thieves were trying to get away in their car, Roy drove his bus into the back of it. While the battered car was moving away, Roy stopped his bus and telephoned the police. The thieves' car was badly damaged and easy to recognize. Shortly afterwards, the police stopped the car and both men were arrested.

Lesson 36 | Across the Channel

Debbie Hart is going to swim across the English Channel tomorrow. She is going to set out from the French coast at five o'clock in the morning. Debbie is only eleven years old and she hopes to set up a new world record. She is a strong swimmer and many people feel that she is sure to succeed. Debbie's father will set out with her in a small boat. Mr. Hart has trained his daughter for years. Tomorrow he will be watching her anxiously as she swims the long distance to England. Debbie intends to take short rests every two hours. She will have something to drink but she will not eat any solid food. Most of Debbie's school friends will be waiting for her on the English coast. Among them will be Debbie's mother, who swam the Channel herself when she was a girl.

Lesson 37 | The Olympic Games

The Olympic Games will be held in our country in four years' time. As a great many people will be visiting the country, the government will be building new hotels, an immense stadium, and a new Olympic-standard swimming pool. They will also be building new roads and a special railway line. The Games will be held just outside the capital and the whole area will be called 'Olympic City'. Workers will have completed the new roads by the end of this year. By the end of next year, they will have finished work on the new stadium. The fantastic modern buildings have been designed by Kurt Gunter. Everybody will be watching anxiously as the new buildings go up. We are all very excited and are looking forward to the Olympic Games because they have never been held before in this country.

Lesson 38 | Everything except the weather

My old friend, Harrison, had lived in the Mediterranean for many years before he returned to England. He had often dreamed of retiring in England and had planned to settle down in the country. He had no sooner returned than he bought a house and went to live there. Almost immediately he began to complain about the weather, for even though it was still summer, it rained continually and it was often bitterly cold. After so many years of sunshine, Harrison got a shock. He acted as if he had never lived in England before. In the end, it was more than he could bear. He had hardly had time to settle down when he sold the house and left the country. The dream he had had for so many years ended there. Harrison had thought of everything except the weather.

Lesson 39 | Am I all right?

While John Gilbert was in hospital, he asked his doctor to tell him whether his operation had been successful, but the doctor refused to do so. The following day, the patient asked for a bedside telephone. When he was alone, he telephoned the hospital exchange and asked for Doctor Millington. When the doctor answered the phone, Mr. Gilbert said he was inquiring about a certain patient, a Mr. John Gilbert. He asked if Mr. Gilbert's operation had been successful and the doctor told him that it had been. He then asked when Mr. Gilbert would be allowed to go home and the doctor told him that he would have to stay in hospital for another two weeks. Then Dr. Millington asked the caller if he was a relative of the patient. 'No,' the patient answered, 'I am Mr. John Gilbert.'

Lesson 40 | Food and talk

Last week at a dinner party, the hostess asked me to sit next to Mrs. Rumbold. Mrs. Rumbold was a large, unsmiling lady in a tight black dress. She did not even look up when I took my seat beside her. Her eyes were fixed on her plate and in a short time, she was busy eating. I tried to make conversation.

'A new play is coming to "The Globe" soon,' I said. 'Will you be seeing it?'

'No,' she answered.

'Will you be spending your holidays abroad this year?' I asked.

'No,' she answered.

'Will you be staying in England?' I asked.

'No,' she answered.

In despair, I asked her whether she was enjoying her dinner.

'Young man,' she answered, 'if you ate more and talked less, we would both enjoy our dinner!"

Lesson 41 | Do you call that a hat?

'Do you call that a hat?' I said to my wife.

'You needn't be so rude about it,' my wife answered as she looked at herself in the mirror.

I sat down on one of those modern chairs with holes in it and waited. We had been in the hat shop for half an hour and my wife was still in front of the mirror.

'We mustn't buy things we don't need,' I remarked suddenly. I regretted saying it almost at once.

'You needn't have said that,' my wife answered. 'I needn't remind you of that terrible tie you bought yesterday.'

'I find it beautiful,' I said. 'A man can never have too many ties.'

'And a woman can't have too many hats,' she answered.

Ten minutes later we walked out of the shop together. My wife was wearing a hat that looked like a lighthouse!

Lesson 42 | Not very musical

As we had had a long walk through one of the markets of old Delhi, we stopped at a square to have a rest. After a time, we noticed a snake charmer with two large baskets at the other side of the square, so we went to have a look at him. As soon as he saw us, he picked up a long pipe which was covered with coins and opened one of the baskets. When he began to play a tune, we had our first glimpse of the snake. It rose out of the basket and began to follow the movements of the pipe. We were very much surprised when the snake charmer suddenly began to play jazz and modern pop songs. The snake, however, continued to 'dance' slowly. It obviously could not tell the difference between Indian music and jazz!

Lesson 43 | Over the South Pole

In 1929, three years after his flight over the North Pole, the American explorer, R.E. Byrd, successfully flew over the South Pole for the first time. Though, at first, Byrd and his men were able to take a great many photographs of the mountains that lay below, they soon ran into serious trouble. At one point, it seemed certain that their plane would crash. It could only get over the mountains if it rose to 10,000 feet. Byrd at once ordered his men to throw out two heavy food sacks. The plane was then able to rise and it cleared the mountains by 400 feet. Byrd now knew that he would be able to reach the South Pole which was 300 miles away, for there were no more mountains in sight. The aircraft was able to fly over the endless white plains without difficulty.

Lesson 44 | Through the forest

Mrs. Anne Sterling did not think of the risk she was taking when she ran through a forest after two men. They had rushed up to her while she was having a picnic at the edge of a forest with her children and tried to steal her handbag. In the struggle, the strap broke

and, with the bag in their possession, both men started running through the trees. Mrs. Sterling got so angry that she ran after them. She was soon out of breath, but she continued to run. When she caught up with them, she saw that they had sat down and were going through the contents of the bag, so she ran straight at them. The men got such a fright that they dropped the bag and ran away. 'The strap needs mending,' said Mrs. Sterling later, 'but they did not steal anything.'

Lesson 45 | A clear conscience

The whole village soon learnt that a large sum of money had been lost. Sam Benton, the local butcher, had lost his wallet while taking his savings to the post office. Sam was sure that the wallet must have been found by one of the villagers, but it was not returned to him. Three months passed, and then one morning, Sam found his wallet outside his front door. It had been wrapped up in newspaper and it contained half the money he had lost, together with a note which said: 'A thief, yes, but only 50 per cent a thief!' Two months later, some more money was sent to Sam with another note: 'Only 25 per cent a thief now!' In time, all Sam's money was paid back in this way. The last note said: 'I am 100 per cent honest now!'

Lesson 46 | Expensive and uncomfortable

When a plane from London arrived at Sydney airport, workers began to unload a number of wooden boxes which contained clothing. No one could account for the fact that one of the boxes was extremely heavy. It suddenly occurred to one of the workers to open up the box. He was astonished at what he found. A man was lying in the box on top of a pile of woolen goods. He was so surprised at being discovered that he did not even try to run away. After he was arrested, the man admitted hiding in the box before the plane left London. He had had a long and uncomfortable trip, for he had been confined to the wooden box for over eighteen hours. The man was ordered to pay $3,500 for the cost of the trip. The normal price of a ticket is $2,000!

Lesson 47 | A thirsty ghost

A public house which was recently bought by Mr. Ian Thompson is up for sale. Mr. Thompson is going to sell it because it is haunted. He told me that he could not go to sleep one night because he heard a strange noise coming from the bar. The next morning, he found that the doors had been blocked by chairs and the furniture had been moved. Though Mr. Thompson had turned the lights off before he went to bed, they were on in the morning. He also said that he had found five empty whisky bottles which the ghost must have drunk the night before. When I suggested that some villagers must have come in for a free drink, Mr. Thompson shook his head. The villagers have told him that they will not accept the pub even if he gives it away.

Lesson 48 | Did you want to tell me something?

Dentists always ask questions when it is impossible for you to answer. My dentist had just pulled out one of my teeth and had told me to rest for a while. I tried to say something, but my mouth was full of cotton wool. He knew I collected match boxes and asked me whether my collection was growing. He then asked me how my brother was and

whether I liked my new job in London. In answer to these questions I either nodded or made strange noises. Meanwhile, my tongue was busy searching out the hole where the tooth had been. I suddenly felt very worried, but could not say anything. When the dentist at last removed the cotton wool from my mouth, I was able to tell him that he had pulled out the wrong tooth.

Lesson 49 | The end of a dream

Tired of sleeping on the floor, a young man in Teheran saved up for years to buy a real bed. For the first time in his life, he became the proud owner of a bed which had springs and a mattress. Because the weather was very hot, he carried the bed on to the roof of his house. He slept very well for the first two nights, but on the third night, a storm blew up. A gust of wind swept the bed off the roof and sent it crashing into the courtyard below. The young man did not wake up until the bed had struck the ground. Although the bed was smashed to pieces, the man was miraculously unhurt. When he woke up, he was still on the mattress. Glancing at the bits of wood and metal that lay around him, the man sadly picked up the mattress and carried it into his house. After he had put it on the floor, he promptly went to sleep again.

Lesson 50 | Taken for a ride

I love travelling in the country, but I don't like losing my way.
I went on an excursion recently, but my trip took me longer than I expected.
'I'm going to Woodford Green,' I said to the conductor as I got on the bus, 'but I don't know where it is.'
'I'll tell you where to get off.' answered the conductor.
I sat in the front of the bus to get a good view of the countryside. After some time, the bus stopped. Looking round, I realized with a shock that I was the only passenger left on the bus.
'You'll have to get off here,' the conductor said. 'This is as far as we go.'
'Is this Woodford Green?' I asked.
'Oh dear,' said the conductor suddenly. 'I forgot to put you off.'
'It doesn't matter,' I said. 'I'll get off here.'
'We're going back now,' said the conductor.
'Well, in that case, I prefer to stay on the bus,' I answered.

Lesson 51 | Reward for virtue

My friend, Hugh, has always been fat, but things got so bad recently that he decided to go on a diet. He began his diet a week ago. First of all, he wrote out a long list of all the foods which were forbidden. The list included most of the things Hugh loves: butter, potatoes, rice, beer, milk, chocolate; and sweets. Yesterday I paid him a visit. I rang the bell and was not surprised to see that Hugh was still as fat as ever. He led me into his room and hurriedly hid a large parcel under his desk. It was obvious that he was very embarrassed. When I asked him what he was doing, he smiled guiltily and then put the parcel on the desk. He explained that his diet was so strict that he had to reward himself occasionally. Then he showed me the contents of the parcel. It contained five large bars of chocolate and three bags of sweets!

Lesson 52 | A pretty carpet

We have just moved into a new house and I have been working hard all morning. I have been trying to get my new room in order. This has not been easy because I own over a thousand books. To make matters worse, the room is rather small, so I have temporarily put my books on the floor. At the moment, they cover every inch of floor space and I actually have to walk on them to get in or out of the room. A short while ago, my sister helped me to carry one of my old bookcases up the stairs. She went into my room and got a big surprise when she saw all those books on the floor. 'This is the prettiest carpet I have ever seen,' she said. She gazed at it for some time then added, 'You don't need bookcases at all. You can sit here in your spare time and read the carpet!'

Lesson 53 | Hot snake

At last firemen have put out a big forest fire in California. Since then, they have been trying to find out how the fire began. Forest fires are often caused by broken glass or by cigarette ends which people carelessly throw away. Yesterday the firemen examined the ground carefully, but were not able to find any broken glass. They were also quite sure that a cigarette end did not start the fire. This morning, however, a fireman accidentally discovered the cause. He noticed the remains of a snake which was wound round the electric wires of a 16,000-volt power line. In this way, he was able to solve the mystery. The explanation was simple but very unusual. A bird had snatched up the snake from the ground and then dropped it on to the wires. The snake then wound itself round the wires. When it did so, it sent sparks down to the ground and these immediately started a fire.

Lesson 54 | Sticky fingers

After breakfast, I sent the children to school and then I went to the shops. It was still early when I returned home. The children were at school, my husband was at work and the house was quiet. So I decided to make some meat pies. In a short time I was busy mixing butter and flour and my hands were soon covered with sticky pastry. At exactly that moment, the telephone rang. Nothing could have been more annoying. I picked up the receiver between two sticky fingers and was dismayed when I recognized the voice of Helen Bates. It took me ten minutes to persuade her to ring back later. At last I hung up the receiver. What a mess! There was pastry on my fingers, on the telephone, and on the doorknobs. I had no sooner got back to the kitchen than the doorbell rang loud enough to wake the dead. This time it was the postman and he wanted me to sign for a registered letter!

Lesson 55 | Not a gold mine

Dreams of finding lost treasure almost came true recently. A new machine called 'The Revealer' has been invented and it has been used to detect gold which has been buried in the ground. The machine was used in a cave near the seashore where—it is said—pirates used to hide gold. The pirates would often bury gold in the cave and then fail to collect it. Armed with the new machine, a search party went into the cave hoping to find buried treasure. The leader of the party was examining the soil near the entrance to the cave when the machine showed that there was gold under the ground. Very excited, the party

dug a hole two feet deep. They finally found a small gold coin which was almost worthless. The party then searched the whole cave thoroughly but did not find anything except an empty tin trunk. In spite of this, many people are confident that 'The Revealer' may reveal something of value fairly soon.

Lesson 56 | Faster than sound!

Once a year, a race is held for old cars. A lot of cars entered for this race last year and there was a great deal of excitement just before it began. One of the most handsome cars was a Rolls-Royce Silver Ghost. The most unusual car was a Benz which had only three wheels. Built in 1885, it was the oldest car taking part. After a great many loud explosions, the race began. Many of the cars broke down on the course and some drivers spent more time under their cars than in them! A few cars, however, completed the race. The winning car reached a speed of forty miles an hour—much faster than any of its rivals. It sped downhill at the end of the race and its driver had a lot of trouble trying to stop it. The race gave everyone a great deal of pleasure. It was very different from modern car races but no less exciting.

Lesson 57 | Can I help you, madam?

A woman in jeans stood at the window of an expensive shop. Though she hesitated for a moment, she finally went in and asked to see a dress that was in the window. The assistant who served her did not like the way she was dressed. Glancing at her scornfully, he told her that the dress was sold. The woman walked out of the shop angrily and decided to punish the assistant next day. She returned to the shop the following morning dressed in a fur coat, with a handbag in one hand and a long umbrella in the other. After seeking out the rude assistant, she asked for the same dress. Not realizing who she was, the assistant was eager to serve her this time. With great difficulty, he climbed into the shop window to get the dress. As soon as she saw it, the woman said she did not like it. She enjoyed herself making the assistant bring almost everything in the window before finally buying the dress she had first asked for.

Lesson 58 | A blessing in disguise?

The tiny village of Frinley is said to possess a 'cursed tree'. Because the tree was mentioned in a newspaper, the number of visitors to Frinley has now increased. The tree was planted near the church fifty years ago, but it is only in recent years that it has gained an evil reputation. It is said that if anyone touches the tree, he will have bad luck; if he picks a leaf, he will die. Many villagers believe that the tree has already claimed a number of victims. The vicar has been asked to have the tree cut down, but so far he has refused. He has pointed out that the tree cut down, but so far he has refused. He has pointed out that the tree is a useful source of income, as tourists have been coming from all parts of the country to see it. In spite of all that has been said, the tourists have been picking leaves and cutting their names on the tree-trunk. So far, not one of them has been struck down by sudden death!

Lesson 59 | In or out?

Our dog, Rex, used to sit outside our front gate and dark. Every time he wanted to come into the garden he would bark until someone opened the gate. As the neighbours complained of the noise, my husband spent weeks training him to press his paw on the latch to let himself in. Rex soon became an expert at opening the gate. However, when I was going out shopping last week, I noticed him in the garden near the gate. This time he was barking so that someone would let him out! Since then, he has developed another bad habit. As soon as he opens the gate from the outside, he comes into the garden and waits until the gate shuts. Then he sits and barks until someone lets him out. After this he immediately lets himself in and begins barking again. Yesterday my husband removed the gate and Rex got so annoyed we have not seen him since.

Lesson 60 | The future

At a village fair, I decided to visit a fortune-teller called Madam Bellinsky. I went into her tent and she told me to sit down. After I had given her some money, she looked into a crystal ball and said: 'A relation of yours is coming to see you. She will be arriving this evening and intends to stay for a few days. The moment you leave this tent, you will get a big surprise. A woman you know well will rush towards you. She will speak to you and then she will lead you away from this place. That is all.'

As soon as I went outside, I forgot all about Madam Bellinsky because my wife hurried towards me. 'Where have you been hiding?' she asked impatiently. 'Your sister will be here in less than an hour and we must be at the station to meet her. We are late already.' As she walked away, I followed her out of the fair.

Lesson 61 | Trouble with the Hubble

The Hubble telescope was launched into space by NASA on April 20, 1990 at a cost of over a billion dollars. Right from the start there was trouble with the Hubble. The pictures it sent us were very disappointing because its main mirror was faulty! NASA is now going to put the telescope right, so it will soon be sending up four astronauts to repair it. The shuttle Endeavour will be taking the astronauts to the Hubble. A robot-arm from the Endeavour will grab the telescope and hold it while the astronauts make the necessary repairs. Of course, the Hubble is above the earth's atmosphere, so it will soon be sending us the clearest pictures of the stars and distant galaxies that we have ever seen. The Hubble will tell us a great deal about the age and size of the universe. By the time you read this, the Hubble's eagle eye will have sent us thousands and thousands of wonderful pictures.

Lesson 62 | After the fire

Firemen had been fighting the forest for nearly three weeks before they could get it under control. A short time before, great trees had covered the countryside for miles around. Now, smoke still rose up from the warm ground over the desolate hills. Winter was coming on and the hills threatened the surrounding villages with destruction, for heavy rain would not only wash away the soil but would cause serious floods as well. When the fire had at last been put out, the forest authorities ordered several tons of a special type of grass-seed which would grow quickly. The seed was sprayed over the ground in huge quantities by aeroplanes. The planes had been planting seed for nearly a

month when it began to rain. By then, however, in many places the grass had already taken root. In place of the great trees which had been growing there for centuries patches of green had begun to appear in the blackened soil.

Lesson 63 | She was not amused

Jeremy Hampden has a large circle of friends and if very popular at parties. Everybody admires him for his great sense of humour—everybody, that is, except his six-year-old daughter, Jenny. Recently, one of Jeremy's closest friends asked him to make a speech at a wedding reception. This is the sort of thing that Jeremy loves. He prepared the speech carefully and went to the wedding with Jenny. he had included a large number of funny stories in the speech and, of course, it was a great success. As soon as he had finished, Jenny told him she wanted to go home. Jeremy was a little disappointed by this but he did as his daughter asked. On the way home, he asked Jenny if she had enjoyed the speech. To his surprise, she said she hadn't. Jeremy asked her why this was so and she told him that she did not like to see so many people laughing at him!

Lesson 64 | The Channel Tunnel

In 1858, a French engineer, Aime Thome de Gamond, arrived in England with a plan for a twenty-one-mile tunnel under the English Channel. He said that it would be possible to build a platform in the centre of the Channel. This platform would serve as a port and a railway station. The tunnel would be well-ventilated if tall chimneys were built above sea level. In 1860, a better plan was put forward by an Englishman, William Low. He suggested that a double railway-tunnel should be built. This would solve the problem of ventilation, for if a train entered this tunnel, it would draw in fresh air behind it. Forty-two years later a tunnel was actually begun. If, at the time, the British had not feared invasion, it would have been completed. The world had to wait almost another 100 years for the Channel Tunnel. It was officially opened on March 7, 1994, finally connecting Britain to the European continent.

Lesson 65 | Jumbo versus the police

Last Christmas, the circus owner, Jimmy Gates, decided to take some presents to a children's hospital. Dressed up as Father Christmas and accompanied by a 'guard of honour' of six pretty girls, he set off down the main street of the city riding a baby elephant called Jumbo. He should have known that the police would never allow this sort of thing. A policeman approached Jimmy and told him he ought to have gone along a side street as Jumbo was holding up the traffic. Though Jimmy agreed to go at once, Jumbo refused to move. Fifteen policemen had to push very hard to get him off the main street. The police had a difficult time, but they were most amused. 'Jumbo must weigh a few tons,' said a policeman afterwards, 'so it was fortunate that we didn't have to carry him. Of course, we should arrest him, but as he has a good record, we shall let him off this time.'

Lesson 66 | Sweet as honey!

In 1963 a Lancaster bomber crashed on Wallis Island, a remote place in the South Pacific, a long way west of Samoa. The plane wasn't too badly damaged, but over the

years, the crash was forgotten and the wreck remained undisturbed. Then in 1989, twenty-six years after the crash, the plane was accidentally rediscovered in an aerial survey of the island. By this time, a Lancaster bomber in reasonable condition was rare and worth rescuing. The French authorities had the plane packaged and moved in parts back to France. Now a group of enthusiasts are going to have the plane restored. It has four Rolls-Royce Merlin engines, but the group will need to have only three of them rebuilt. Imagine their surprise and delight when they broke open the packing cases and found that the fourth engine was sweet as honey—still in perfect condition. A colony of bees had turned the engine into a hive and it was totally preserved in beeswax!

Lesson 67 | Volcanoes

Haroun Tazieff, the Polish scientist, has spent his lifetime studying active volcanoes and deep caves in all parts of the world. In 1948, he went to Lake Kivu in the Congo to observe a new volcano which he later named Kituro. Tazieff was able to set up his camp very close to the volcano while it was erupting violently. Though he managed to take a number of brilliant photographs, he could not stay near the volcano for very long. He noticed that a river of liquid rock was coming towards him. It threatened to surround him completely, but Tazieff managed to escape just in time. He waited until the volcano became quiet and he was able to return two days later. This time, he managed to climb into the mouth of Kituro so that he could take photographs and measure temperatures. Tazieff has often risked his life in this way. He has been able to tell us more about active volcanoes than any man alive.

Lesson 68 | Persistent

I crossed the street to avoid meeting him, but he saw me and came running towards me. It was no use pretending that I had not seen him, so I waved to him. I never enjoy meeting Nigel Dykes. He never has anything to do. No matter how busy you are, he always insists on coming with you. I had to think of a way of preventing him from following me around all morning.

'Hello, Nigel,' I said. 'Fancy meeting you here!'

'Hi, Elizabeth,' Nigel answered. 'I was just wondering how to spend the morning—until I saw you. You're not busy doing anything, are you?'

'No, not at all,' I answered. 'I'm going to...'

'Would you mind my coming with you?' he asked, before I had finished speaking.

'Not at all,' I lied, 'but I'm going to the dentist.'

'Then I'll come with you,' he answered. 'There's always plenty to read in the waiting room!

Lesson 69 | But not murder!

I was being tested for a driving licence for the third time. I had been asked to drive in heavy traffic and had done so successfully. After having been instructed to drive out of town, I began to acquire confidence. Sure that I had passed, I was almost beginning to enjoy my test. The examiner must have been pleased with my performance, for he smiled and said. 'Just one more thing, Mr. Eames. Let us suppose that a child suddenly crosses the road in front of you. As soon as I tap on the window, you must stop within five feet.' I

continued driving and after some time, the examiner tapped loudly. Though the sound could be heard clearly, it took me a long time to react. I suddenly pressed the brake pedal and we were both thrown forward. The examiner looked at me sadly. 'Mr. Eames,' he said, in a mournful voice, 'you have just killed that child!'

Lesson 70 | Red for danger

During a bullfight, a drunk suddenly wandered into the middle of the ring. The crowd began to shout, but the drunk was unaware of the danger. The bull was busy with the matador at the time, but it suddenly caught sight of the drunk who was shouting rude remarks and waving a red cap. Apparently sensitive to criticism, the bull forgot all about the matador and charged at the drunk. The crowd suddenly grew quiet. The drunk, however, seemed quite sure of himself. When the bull got close to him, he clumsily stepped aside to let it pass. The crowd broke into cheers and the drunk bowed. By this time, however, three men had come into the ring and they quickly dragged the drunk to safety. Even the bull seemed to feel sorry for him, for it looked on sympathetically until the drunk was out of the way before once more turning its attention to the matador.

Lesson 71 | A famous clock

When you visit London, one of the first things you will see is Big Ben, the famous clock which can be heard all over the world on the B.B.C. If the Houses of Parliament had not been burned down in 1834, the great clock would never have been erected. Big Ben takes its name from Sir Benjamin Hall who was responsible for the making of the clock when the new Houses of Parliament were being built. It is not only of immense size, but is extremely accurate as well. Officials from Greenwich Observatory have the clock checked twice a day. On the B.B.C. you can hear the clock when it is actually striking because microphones are connected to the clock tower. Big Ben has rarely gone wrong. Once, however, it failed to give the correct time. A painter who had been working on the tower hung a pot of paint on one of the hands and slowed it down!

Lesson 72 | A car called Bluebird

The great racing driver, Sir Malcolm Campbell, was the first man to drive at over 300 miles per hour. He set up a new world record in September 1935 at Bonneville Salt Flats, Utah. *Bluebird*, the car he was driving, had been specially built for him. It was over 30 feet in length and had a 2,500-horsepower engine. Although Campbell reached a speed of over 304 miles per hour, he had great difficulty in controlling the car because a tyre burst during the first run. After his attempt, Campbell was disappointed to learn that his average speed had been 299 miles per hour. However, a few days later, he was told that a mistake had been made. His average speed had been 301 miles per hour. Since that time, racing drivers have reached speeds over 600 miles an hour. Following in his father's footsteps many years later, Sir Malcolm's son, Donald, also set up a world record. Like his father, he was driving a car called Bluebird.

Lesson 73 | The record-holder

Children who play truant from school are unimaginative. A quiet day's fishing, or eight hours in a cinema seeing the same film over and over again, is usually as far as they get.

They have all been put to shame by a boy who, while playing truant, travelled 1,600 miles. He hitchhiked to Dover and, towards evening, went into a boat to find somewhere to sleep. When he woke up next morning, he discovered that the boat had, in the meantime, travelled to Calais. No one noticed the boy as he crept off. From there, he hitchhiked to Paris in a lorry. The driver gave him a few biscuits and a cup of coffee and left him just outside the city. The next car the boy stopped did not take him into the centre of Paris as he hoped it would, but to Perpignan on the French-Spanish border. There he was picked up by a policeman and sent back to England by the local authorities. He has surely set up a record for the thousands of children who dream of evading school.

Lesson 74 | Out of the limelight

An ancient bus stopped by a dry river bed and a party of famous actors and actresses got off. Dressed in dark glasses and old clothes, they had taken special precautions so that no one should recognize them. But as they soon discovered, disguises can sometimes be too perfect.

'This is a wonderful place for a picnic,' said Gloria Gleam.

'It couldn't be better, Gloria,' Brinksley Meers agreed. 'No newspaper men, no film fans! Why don't we come more often?'

Meanwhile, two other actors, Rockwall Slinger and Merlin Greeves, had carried two large food baskets to a shady spot under some trees. When they had all made themselves comfortable, a stranger appeared. He looked very angry. 'Now you get out of here, all of you!' he shouted. 'I'm sheriff here. Do you see that notice? It says "No Camping"—in case you can't read!'

'Look, sheriff,' said Rockwall, 'don't be too hard on us. I'm Rockwall Slinger and this is Merlin Greeves.'

'Oh, is it?' said the sheriff with a sneer. 'Well, I'm Brinksley Meers, and my other name is Gloria Gleam. Now you get out of here fast!'

Lesson 75 | SOS

When a light passenger plane flew off course some time ago, it crashed in the mountains and its pilot was killed. The only passengers, a young woman and her two baby daughters, were unhurt. It was the middle of winter. Snow lay thick on the ground. The woman knew that the nearest village was miles away. When it grew dark, she turned a suitcase into a bed and put the children inside it, covering them with all the clothes she could find. During the night, it got terribly cold. The woman kept as near as she could to the children and even tried to get into the case herself, but it was too small. Early next morning, she heard planes passing overhead and wondered how she could send a signal. Then she had an idea. She stamped out the letters 'SOS' in the snow. Fortunately, a pilot saw the signal and sent a message by radio to the nearest town. It was not long before a helicopter arrived on the scene to rescue the survivors of the plane crash.

Lesson 76 | April Fools' Day

'To end our special news bulletin,' said the voice of the television announcer, 'we're going over to the macaroni fields of Calabria. Macaroni has been grown in this area for over six hundred years. Two of the leading growers, Giuseppe Moldova and Riccardo

Brabante, tell me that they have been expecting a splendid crop this year and harvesting has begun earlier than usual. Here you can see two workers who, between them, have just finished cutting three cartloads of golden brown macaroni stalks. The whole village has been working day and night gathering and threshing this year's crop before the September rains. On the right, you can see Mrs. Brabante herself. She has been helping her husband for thirty years now. Mrs. Brabante is talking to the manager of the local factory where the crop is processed. This last scene shows you what will happen at the end of the harvest: the famous Calabrian macaroni-eating competition! Signor Fratelli, the present champion, has won it every year since 1991. And that ends our special bulletin for today, Thursday, April lst. We're now going back to the studio.'

Lesson 77 | A successful operation

The mummy of an Egyptian woman who died in 800 B.C. has just had an operation. The mummy is that of Shepenmut who was once a singer in the Temple of Thebes. As there were strange marks on the X-ray plates taken of the mummy, doctors have been trying to find out whether the woman died of a rare disease. The only way to do this was to operate. The operation, which lasted for over four hours, proved to be very difficult because of the hard resin which covered the skin. The doctors removed a section of the mummy and sent it to a laboratory. They also found something which the X-ray plates did not show: a small wax figure of the god Duamutef. This god which has the head of a cow was normally placed inside a mummy. The doctors have not yet decided how the woman died. They feared that the mummy would fall to pieces when they cut it open, but fortunately this has not happened. The mummy successfully survived the operation.

Lesson 78 | The last one?

After reading an article entitled 'Cigarette Smoking and Your Health' I lit a cigarette to calm my nerves. I smoked with concentration and pleasure as I was sure that this would be my last cigarette. For a whole week I did not smoke at all and during this time, my wife suffered terribly. I had all the usual symptoms of someone giving up smoking: a bad temper and an enormous appetite. My friends kept on offering me cigarettes and cigars. They made no effort to hide their amusement whenever I produced a packet of sweets from my pocket. After seven days of this I went to a party. Everybody around me was smoking and I felt extremely uncomfortable. When my old friend Brian urged me to accept a cigarette, it was more than I could bear. I took one guiltily, lit it and smoked with satisfaction. My wife was delighted that things had returned to normal once more. Anyway, as Brian pointed out, it is the easiest thing in the world to give up smoking. He himself has done it lots of times!

Lesson 79 | By air

I used to travel by air a great deal when I was a boy. My parents used to live in South America and I used to fly there from Europe in the holidays. A flight attendant would take charge of me and I never had an unpleasant experience. I am used to traveling by air and only on one occasion have I ever felt frightened. After taking off, we were flying low over the city and slowly gaining height, when the plane suddenly turned round and flew back to the airport. While we were waiting to land, a flight attendant told us to keep calm

and to get off the plane quietly as soon as it had touched down. Everybody on board was worried and we were curious to find out what had happened. Later we learnt that there was a very important person on board. The police had been told that a bomb had been planted on the plane. After we had landed, the plane was searched thoroughly. Fortunately, nothing was found and five hours later we were able to take off again.

Lesson 80 | The Crystal Palace

Perhaps the most extraordinary building of the nineteenth century was the Crystal Palace, which was built in Hyde Park for the Great Exhibition of 1851. The Crystal Palace was different from all other buildings in the world, for it was made of iron and glass. It was one of the biggest buildings of all time and a lot of people from many countries came to see it. A great many goods were sent to the exhibition from various parts of the world. There was also a great deal of machinery on display. The most wonderful piece of machinery on show was Nasmyth's steam hammer. Though in those days, traveling was not as easy as it is today, steam boats carried thousands of visitors across the Channel from Europe. On arriving in England, they were taken to the Crystal Palace by train. There were six million visitors in all, and the profits from the exhibition were used to build museums and colleges. Later, the Crystal Palace was moved to South London. It remained one of the most famous buildings in the world until it was burnt down in 1936.

Lesson 81 | Escape

When he had killed the guard, the prisoner of war quickly dragged him into the bushes. Working rapidly in the darkness, he soon changed into the dead man's clothes. Now, dressed in a blue uniform and with a rifle over his shoulder, the prisoner marched boldly up and down in front of the camp. He could hear shouting in the camp itself. Lights were blazing and men were running here and there: they had just discovered that a prisoner had escaped. At that moment, a large black car with four officers inside it, stopped at the camp gates. The officers got out and the prisoner stood to attention and saluted as they passed. When they had gone, the driver of the car came towards him. The man obviously wanted to talk. He was rather elderly with grey hair and clear blue eyes. The prisoner felt sorry for him, but there was nothing else he could do. As the man came near, the prisoner knocked him to the ground with a sharp blow. Then, jumping into the car, he drove off as quickly as he could.

Lesson 82 | Monster or fish?

Fishermen and sailors sometimes claim to have seen monsters in the sea. Though people have often laughed at stories told by seamen, it is now known that many of these 'monsters' which have at times been sighted are simply strange fish. Occasionally, unusual creatures are washed to the shore, but they are rarely caught out at sea. Some time ago, however, a peculiar fish was caught near Madagascar. A small fishing boat was carried miles out to sea by the powerful fish as it pulled on the line. Realizing that this was no ordinary fish, the fisherman made every effort not to damage it in any way. When it was eventually brought to shore, it was found to be over thirteen feet long. It had a head like a horse, big blue eyes, shining silver skin, and a bright red tail. The fish, which has since

been sent to a museum where it is being examined by a scientist, is called an oarfish. Such creatures have rarely been seen alive by man as they live at a depth of six hundred feet.

Lesson 83 | After the elections

The former Prime Minister, Mr. Wentworth Lane, was defeated in the recent elections. He is now retiring from political life and has gone abroad. My friend, Patrick, has always been a fanatical opponent of Mr. Lane's Radical Progressive Party. After the elections, Patrick went to the former Prime Minister's house. When he asked if Mr. Lane lived there, the policeman on duty told him that since his defeat, the ex-Prime Minister had gone abroad. On the following day, Patrick went to the house again. The same policeman was just walking slowly past the entrance, when Patrick asked the same question. Though a little suspicious this time, the policeman gave him the same answer. The day after, Patrick went to the house once more and asked exactly the same question. This time, the policeman lost his temper. 'I told you yesterday and the day before yesterday,' he shouted, 'Mr. Lane was defeated in the elections. He has retired from political life and gone to live abroad!"

'I know,' answered Patrick, 'but I love to hear you say it!'

Lesson 84 | On strike

Busmen have decided to go on strike next week. The strike is due to begin on Tuesday. No one knows how long it will last. The busmen have stated that the strike will continue until general agreement is reached about pay and working conditions. Most people believe that the strike will last for at least a week. Many owners of private cars are going to offer 'free rides' to people on their way to work. This will relieve pressure on the trains to some extent. Meanwhile, a number of university students have volunteered to drive buses while the strike lasts. All the students are expert drivers, but before they drive any of the buses, they will have to pass a special test. The students are going to take the test in two days' time. Even so, people are going to find it difficult to get to work. But so far, the public has expressed its gratitude to the students in letters to the Press. Only one or two people have objected that the students will drive too fast!

Lesson 85 | Never too old to learn

I have just received a letter from my old school, informing me that my former headmaster, Mr. Stuart Page, will be retiring next week. Pupils of the school, old and new, will be sending him a present to mark the occasion. All those who have contributed towards the gift will sign their names in a large album which will be sent to the headmaster's home. We shall all remember Mr. Page for his patience and understanding and for the kindly encouragement he gave us when we went so unwillingly to school. A great many former pupils will be attending a farewell dinner in his honour next Thursday. It is a curious coincidence that the day before his retirement, Mr. Page will have been teaching for a total of forty years. After he has retired, he will devote himself to gardening. For him, this will be an entirely new hobby. But this does not matter, for, as he has often remarked, one is never too old to learn.

Lesson 86 | Out of control

As the man tried to swing the speedboat round, the steering wheel came away in his hands. He waved desperately to his companion, who had been water skiing for the last fifteen minutes. Both men had hardly had time to realize what was happening when they were thrown violently into the sea. The speedboat had struck a buoy, but it continued to move very quickly across the water. Both men had just begun to swim towards the shore, when they noticed with dismay that the speedboat was moving in a circle. It now came straight towards them at tremendous speed. In less than a minute, it roared past them only a few feet away. After it had passed, they swam on as quickly as they could because they knew that the boat would soon return. They had just had enough time to swim out of danger when the boat again completed a circle. On this occasion, however, it had slowed down considerably. The petrol had nearly all been used up. Before long, the noise dropped completely and the boat began to drift gently across the water.

Lesson 87 | A perfect *alibi*

'At the time the murder was committed, I was travelling on the 8 o'clock train to London,' said the man.

'Do you always catch such an early train?' asked the inspector.

'Of course I do,' answered the man. 'I must be at work at 10 o'clock. My employer will confirm that I was there on time.'

'Would a later train get you to work on time?' asked the inspector.

'I suppose it would, but I never catch a later train.'

'At what time did you arrive at the station?'

'At ten to eight. I bought a paper and waited for the train.'

'And you didn't notice anything unusual?'

'Of course not.'

'I suggest,' said the inspector, 'that you are not telling the truth. I suggest that you did not catch the 8 o'clock train, but that you caught the 8.25 which would still get you to work on time. You see, on the morning of the murder, the 8 o'clock train did not run at all. It broke down at Ferngreen station and was taken off the line.'

Lesson 88 | Trapped in a mine

Six men have been trapped in a mine for seventeen hours. If they are not brought to the surface soon they may lose their lives. However, rescue operations are proving difficult. If explosives are used, vibrations will cause the roof of the mine to collapse. Rescue workers are therefore drilling a hole on the north side of the mine. They intend to bring the men up in a special capsule. If there had not been a hard layer of rock beneath the soil, they would have completed the job in a few hours. As it is, they have been drilling for sixteen hours and they still have a long way to go. Meanwhile, a microphone, which was lowered into the mine two hours ago, has enabled the men to keep in touch with their closest relatives. Though they are running out of food and drink, the men are cheerful and confident that they will get out soon. They have been told that rescue operations are progressing smoothly. If they knew how difficult it was to drill through the hard rock, they would lose heart.

Lesson 89 | A slip of the tongue

People will do anything to see a free show—even if it is a bad one. When the news got round that a comedy show would be presented at our local cinema by the P. and U. Bird Seed Company, we all rushed to see it. We had to queue for hours to get in and there must have been several hundred people present just before the show began. Unfortunately, the show was one of the dullest we have ever seen. Those who failed to get in need not have felt disappointed, as many of the artistes who should have appeared did not come. The only funny things we heard that evening came from the advertiser at the beginning of the programme. He was obviously very nervous and for some minutes stood awkwardly before the microphone. As soon as he opened his mouth, everyone burst out laughing. We all know what the poor man should have said, but what he actually said was: 'This is the Poo and Ee Seed Bird Company. Good ladies, evening and gentlemen!"

Lesson 90 | What's for supper?

Fish and chips has always been a favourite dish in Britain, but as the oceans have been overfished, fish has become more and more expensive. So it comes as a surprise to learn that giant fish are terrifying the divers on North Sea oil rigs. Oil rigs have to be repaired frequently and divers, who often have to work in darkness a hundred feet under water, have been frightened out of their wits by giant fish bumping into them as they work. Now they have had special cages made to protect them from these monsters. The fish are not sharks or killer whales, but favourite eating varieties like cod and skate which grow to unnatural sizes, sometimes as much as twelve feet in length. Three factors have caused these fish to grow so large: the warm water round the hot oil pipes under the sea; the plentiful supply of food thrown overboard by the crews on the rigs; the total absence of fishing boats around the oil rigs. As a result, the fish just eat and eat and grow and grow in the lovely warm water. Who eats who?

Lesson 91 | Three men in a basket

A pilot noticed a balloon which seemed to be making for a Royal Air Force Station nearby. He informed the station at once, but no one there was able to explain the mystery. The officer in the control tower was very angry when he heard the news, because balloons can be a great danger to aircraft. He said that someone might be spying on the station and the pilot was ordered to keep track of the strange object. The pilot managed to circle the balloon for some time. He could make out three men in a basket under it and one of them was holding a pair of binoculars. When the balloon was over the station, the pilot saw one of the men taking photographs. Soon afterwards, the balloon began to descend and it landed near an airfield. The police were called in, but they could not arrest anyone, for the basket contained two Members of Parliament and the Commanding Officer of the station! As the Commanding Officer explained later, one half of the station did not know what the other half was doing!

Lesson 92 | Asking for trouble

It must have been about two in the morning when I returned home. I tried to wake up my wife by ringing the doorbell, but she was fast asleep, so I got a ladder from the shed in the garden, put it against the wall, and began climbing towards the bedroom window. I was almost there when a sarcastic voice below said, 'I don't think the windows need

cleaning at this time of the night.' I looked down and nearly fell off the ladder when I saw a policeman. I immediately regretted answering in the way I did, but I said, 'I enjoy cleaning windows at night.'

'So do I,' answered the policeman in the same tone. 'Excuse my interrupting you. I hate to interrupt a man when he's busy working, but would you mind coming with me to the station?'

'Well, I'd prefer to stay here,' I said. 'You see. I've forgotten my key.'

'Your what?' he called.

'My key,' I shouted.

Fortunately, the shouting woke up my wife who opened the window just as the policeman had started to climb towards me.

Lesson 93 | A noble gift

One of the most famous monuments in the world, the Statue of Liberty, was presented to the United States of America in the nineteenth century by the people of France. The great statue, which was designed by the sculptor Auguste Bartholdi, took ten years to complete. The actual figure was made of copper supported by a metal framework which had been especially constructed by Eiffel. Before it could be transported to the United States, a site had to be found for it and a pedestal had to be built. The site chosen was an island at the entrance of New York Harbour. By 1884, a statue which was 151 feet tall had been erected in Paris. The following year, it was taken to pieces and sent to America. By the end of October 1886, the statue had been put together again and it was officially presented to the American people by Bartholdi. Ever since then, the great monument has been a symbol of liberty for the millions of people who have passed through New York Harbour to make their homes in America.

Lesson 94 | Future champions

Experiments have proved that children can be instructed in swimming at a very early age. At a special swimming pool in Los Angeles, children become expert at holding their breath under water even before they can walk. Babies of two months old do not appear to be reluctant to enter the water. It is not long before they are so accustomed to swimming that they can pick up weights from the floor of the pool. A game that is very popular with these young swimmers is the underwater tricycle race. Tricycles are lined up on the floor of the pool seven feet under water. The children compete against each other to reach the other end of the pool. Many pedal their tricycles, but most of them prefer to push or drag them. Some children can cover the whole length of the pool without coming up for breath even once. Whether they will ever become future Olympic champions, only time will tell. Meanwhile, they should encourage those among us who cannot swim five yards before they are gasping for air.

Lesson 95 | A fantasy

When the Ambassador or Escalopia returned home for lunch, his wife got a shock. He looked pale and his clothes were in a frightful state.

'What has happened?' she asked. 'How did your clothes get into such a mess?'

'A fire extinguisher, my dear,' answered the Ambassador drily. 'University students set the Embassy on fire this morning.'
'Good heavens!' exclaimed his wife. 'And where were you at the time?'
'I was in my office as usual,' answered the Ambassador. 'The fire broke out in the basement. I went down immediately, of course, and that fool, Horst, aimed a fire extinguisher at me. He thought I was on fire. I must definitely get that fellow posted.'
The Ambassador's wife went on asking questions, when she suddenly noticed a big hole in her husband's hat.
'And how can you explain that?' she asked.
'Oh, that,' said the Ambassador. 'Someone fired a shot through my office window. Accurate, don't you think? Fortunately, I wasn't wearing it at the time. If I had been, I would not have been able to get home for lunch.'

Lesson 96 | The dead return

A Festival for the Dead is held once a year in Japan. This festival is a cheerful occasion, for on this day, the dead are said to return to their homes and they are welcomed by the living. As they are expected to be hungry after their long journey, food is laid out for them. Specially-made lanterns are hung outside each house to help the dead to find their way. All night long, people dance and sing. In the early morning, the food that had been laid out for the dead is thrown into a river or into the sea as it is considered unlucky for anyone living to eat it. In towns that are near the sea, the tiny lanterns which had been hung in the streets the night before, are placed into the water when the festival is over. Thousands of lanterns slowly drift out to sea guiding the dead on their return journey to the other world. This is a moving spectacle, for crowds of people stand on the shore watching the lanterns drifting away until they can be seen no more.

—Finis—

—NEW CONCEPT ENGLISH—

BOOK III

An Integrated English Course

By Louis Gorge Alexander

Longman, 1967

0 | Politics and the English Language

What is above all needed is to let the meaning choose the word, and not the other way around. In prose, the worst thing one can do with words is surrender to them. When you think of a concrete object, you think wordlessly, and then, if you want to describe the thing you have been visualising you probably hunt about until you find the exact words that seem to fit it. When you think of something abstract you are more inclined to use words from the start, and unless you make a conscious effort to prevent it, the existing dialect will come rushing in and do the job for you, at the expense of blurring or even changing your meaning. Probably it is better to put off using words as long as possible and get one's meaning as clear as one can through pictures and sensations. Afterward one can choose—not simply accept—the phrases that will best cover the meaning, and then switch round and decide what impressions one's words are likely to make on another person. This last effort of the mind cuts out all stale or mixed images, all prefabricated phrases, needless repetitions, and humbug and vagueness generally. But one can often be in doubt about the effect of a word or a phrase, and one needs rules that one can rely on when instinct fails. I think the following rules will cover most cases:

1. Never use a metaphor, simile, or other figure of speech which you are used to seeing in print.
2. Never use a long word where a short one will do.
3. If it is possible to cut a word out, always cut it out.

4. Never use the passive where you can use the active.
5. Never use a foreign phrase, a scientific word, or a jargon word if you can think of an everyday English equivalent.
6. Break any of these rules sooner than say anything outright barbarous.
These rules sound elementary, and so they are, but they demand a deep change of attitude in anyone who has grown used to writing in the style now fashionable.

1 | A puma[1] at large

Pumas are large, cat-like animals which
are found in America. When reports
came into London Zoo[2] that a wild puma
had been spotted forty-five miles south of
London, they were not taken seriously.
However, as the evidence began to accumulate, experts from the Zoo felt obliged to investigate, for the descriptions given by people who claimed to have seen the puma were extraordinarily similar.
The hunt for the puma began in a small village where a woman picking blackberries saw 'a large cat' only five yards away from her. It immediately ran away when she saw it, and experts confirmed that a puma will not attack a human being unless it is cornered. The search proved difficult, for the puma was often observed at one place in the morning and at another place twenty miles away in the evening. Wherever it went, it left behind it a trail of dead deer and small animals like rabbits. Paw prints were seen in a number of places and puma fur was found clinging to bushes. Several people complained of 'cat-like noises' at night and a business-man on a fishing trip saw the puma up a tree. The experts were now fully convinced that the animal was a puma, but where had it come from? As no pumas had been reported missing from any zoo in the country, this one must have been in the possession of a private collector and somehow managed to escape. The hunt went on for several weeks, but the puma was not caught. It is disturbing to think that a dangerous wild animal is still at large in the quiet countryside.

2 | Thirteen equals one

Our vicar[3] is always raising money for one
cause or another, but he has never
managed to get enough money to have
the church clock repaired. The big clock

[1] The cougar (Puma concolor), also **puma**, mountain lion, or panther, depending on region, is a mammal of the Felidae family, native to the Americas. This large, solitary cat has the greatest range of any wild terrestrial mammal in the Western Hemisphere, extending from Yukon in Canada to the southern Andes of South America. An adaptable, generalist species, the cougar is found in every major American habitat type. It is the second heaviest cat in the American continents after the jaguar, and the fourth heaviest in the world, along with the leopard, after the tiger, lion, and jaguar, although it is most closely related to smaller felines.
[2] **London Zoo** is the world's oldest scientific zoo. It was opened in London on April 27, 1828, and was originally intended to be used as a collection for scientific study. It was eventually made open to the public in 1847. Today it houses a collection of 755 species of animals, with 15104 individuals, making it one of the largest collections in the United Kingdom. http://www.zsl.org/zsl-london-zoo//
[3] In the broadest sense, a **vicar** (from the Latin *vicarius*) is a representative, anyone acting "in the person of" or agent for a superior (compare "vicarious" in the sense of "at second hand"). In this sense, the title is comparable to lieutenant, literally the "place-holder". Usually the title appears in a number of Christian ecclesiastical contexts, but in the Holy Roman Empire a local representative of the emperor, perhaps an archduke, might be styled "vicar"

which used to strike the hours day and night was damaged during the war and has been silent ever since.
One night, however, our vicar woke up with a start: the clock was striking the hours! Looking at his watch, he saw that it was one o'clock, but the bell struck thirteen times before it stopped. Armed with a torch, the vicar went up into the clock tower to see what was going on. In the torchlight, he caught sight of a figure whom he immediately recognized as Bill Wilkins, our local grocer.
'Whatever are you doing up here Bill?' asked the vicar in surprise.
'I'm trying to repair the bell,' answered Bill.' I've been coming up here night after night for weeks now. You see, I was hoping to give you a surprise.'
'You certainly did give me a surprise!' said the vicar. 'You've probably woken up everyone in the village as well. Still, I'm glad the bell is working again.'
'That's the trouble, vicar,' answered Bill. 'It's working all right, but I'm afraid that at one o'clock it will strike thirteen times and there's nothing 1 can do about it.'
'We'll get used to that Bill,' said the vicar. 'Thirteen is not as good as one but it's better than nothing. Now let's go downstairs and have a cup of tea.'

3 | An unknown goddess

Some time ago, an interesting discovery
was made by archaeologists on the Aegean
island of Kea. An American team explored a temple which stands in an
ancient city on the promontory of Ayia Irini[1]. The city at one time must have been prosperous—for it enjoyed a high level of civilization. Houses—often three storeys high—were built of stone. They had large rooms with beautifully decorated walls. The city was even equipped with a drainage system—for a great many clay pipes were found beneath the narrow streets.
The temple which the archaeologists explored was used as a place of worship from the fifteenth century B.C. until Roman times. In the most sacred room of the temple, clay fragments of fifteen statues were found. Each of these represented a goddess and had, at one time, been painted. The body of one statue was found among remains dating from the fifteenth century B.C. Its missing head happened to be among remains of the fifth century B.C. This head must have been found in Classical times and carefully preserved. It was very old and precious even then. When the archaeologists reconstructed the fragments, they were amazed to find that the goddess turned out to be a very modern-looking woman. She stood three feet high and her hands rested on her hip. She was wearing a full-length skirt which swept the ground. Despite her great age, she was very graceful indeed, but, so far, the archaeologists have been unable to discover her identity.

4 | The double life of Alfred Bloggs

These days, people who do manual work
often receive far more money than clerks

[1] **Agia Eirini** (Greek: Άγια Ειρήνη, for Saint Irene), also Agia Irini, Ayia Irini and Ayia Eirini may refer to several places in Cyprus and Greece:

who work in offices. People who work in
offices are frequently referred to as' white collar workers' for the simple reason thatthey usually wear a collar and tie to go to work. Such is human nature, that a great many people are often willing to sacrifice higher pay for the privilege of becoming white collar workers. This can give rise to curious situations, as it did in the case of Alfred Bloggs who worked as a dustman for the Ellesmere Corporation.
When he got married, Alf was too embarrassed to say anything to his wife about his job. He simply told her that he worked for the Corporation. Every morning, he left home dressed in a fine black suit. He then changed into overalls and spent the next eight hours as a dustman. Before returning home at night, he took a shower and changed back into his suit. Alf did this for over two years and his fellow dustmen kept his secret. Alf's wife has never discovered that she married a dustman and she never will, for Alf has just found another job. He will soon be working in an office as a junior clerk. He will be earning only half as much as he used to, but he feels that his rise in status is well worth the loss of money. From now on, he will wear a suit all day and others will call him 'Mr Bloggs', not 'Alf'.

5 | The fact

Editors of newspapers and magazines
often go to extremes to provide their
readers with unimportant facts and statistics. Last year a journalist had been instructed by a well-known magazine to write an article on the president's palace in a new African republic. When the article arrived, the editor read the first sentence and then refused to publish it.
The article began: 'Hundreds of steps lead to the high wall which surrounds the president's palace.' The editor at once sent the journalist a telegram instructing him to find out the exact number of steps and the height of the wall. The journalist immediately set out to obtain these important facts, but he took a long time to send them. Meanwhile, the editor was getting impatient, for the magazine would soon go to press. He sent the journalist two urgent telegrams, but received no reply. He sent yet another telegram informing the journalist that if he did not reply soon he would be fired. When the journalist again failed to reply, the editor reluctantly published the article as it had originally been written. A week later, the editor at last received a telegram from the journalist. Not only had the poor man been arrested, but he had been sent to prison as well. However, he had at last been allowed to send a cable in which he informed the editor that he had been arrested while counting the 1084 steps leading to the 15-foot wall which surrounded the president's palace.

6 | Smash-and-grab

The expensive shops in a famous arcade
near Piccadilly[1] were just opening. At this

[1] **Piccadilly** is a major London street, running from Hyde Park Corner in the west to Piccadilly Circus in the east. It is completely within the city of Westminster. The street is part of the A4 road, London's second most important western artery. St. James's lies to the south of the eastern section of the street, while the western section is built up only on the northern side and overlooks Green Park. The area to the north is Mayfair.

time of the morning, the arcade was almost
empty. Mr Taylor, the owner of a jewellery shop was admiring a new window display. Two of his assistants had been working busily since 8 o'clock and had only just finished. Diamond necklaces and rings had been beautifully arranged on a background of black velvet. After gazing at the display for several minutes, Mr Taylor went back into his shop. The silence was suddenly broken when a large car, with its headlights on and its horn blaring, roared down the arcade. It came to a stop outside the jeweler's. One man stayed at the wheel while two others with black stockings over their faces jumped out and smashed the window of the shop with iron bars. While this was going on, Mr Taylor was upstairs. He and his staff began throwing furniture out of the window. Chairs and tables went flying into the arcade. One of the thieves was struck by a heavy statue, but he was too busy helping himself to diamonds to notice any pain. The raid was all over in three minutes, for the men scrambled back into the car and it moved off at a fantastic speed. Just as it was leaving, Mr Taylor rushed out and ran after it throwing ashtrays and vases, but it was impossible to stop the thieves. They had got away with thousands of pounds worth of diamonds.

7 | Crazy

Children often have far more sense than
their elders. This simple truth was
demonstrated rather dramatically during
a civil defence exercise in a small town in
Canada. Most of the inhabitants were asked to take part in the exercise during which they had to pretend that their city had been bombed. Air-raid warnings were sounded and thousands of people went into special air-raid shelters. Doctors and nurses remained above ground while police patrolled the streets in case anyone tried to leave the shelters too soon. The police did not have much to do because the citizens took the exercise seriously. They stayed underground for twenty minutes and waited for the siren to sound again. On leaving the air-raid shelters, they saw that doctors and nurses were busy. A great many people had volunteered to act as casualties. Theatrical make-up and artificial blood had been used to make the injuries look realistic. A lot of people were lying 'dead' in the streets. The living helped to carry the dead and wounded to special stations. A child of six was brought in by two adults. The child was supposed to be dead. With theatrical make-up on his face, he looked as if he had died of shock. Some people were so moved by the sight that they began to cry. However, the child suddenly sat up and a doctor asked him to comment on his death. The child looked around for a moment and said, 'I think they're all crazy!'

8 | A famous monastery

The Great St Bernard Pass[1] connects

[1] **Great St Bernard Pass** (Fr. Col du Grand-Saint-Bernard, It. Colle del Gran San Bernardo) is the most ancient pass through the Western Alps, with evidence of use as far back as the Bronze Age, surviving traces of the Roman road and more recently the path of Napoleon's army into Italy in 1800. A hospice for travellers was founded in 1049 and named after Saint Bernard of Menthon. The hospice later became famous for its St. Bernard dogs. Pope Pius XI confirmed Bernard as patron saint of the Alps in 1923.

Switzerland to Italy. At 2470 metres, it is
the highest mountain pass in Europe.
The famous monastery of St Bernard, which was founded in the eleventh century, lies about a mile away. For hundreds of years, St Bernard dogs have saved the lives of travellers crossing the dangerous Pass. These friendly dogs, which were first brought from Asia, were used as watch-dogs even in Roman times. Now that a tunnel has been built through the mountains, the Pass is less dangerous, but each year, the dogs are still sent out into the snow whenever a traveller is in difficulty. Despite the new tunnel, there are still a few people who rashly attempt to cross the Pass on foot during the summer months, the monastery is very busy, for it is visited by thousands of people who cross the Pass in cars, As there are so many people about, the dogs have to be kept in a special enclosure. In winter, however, life at the monastery is quite different. The temperature drops to -30 and very few people attempt to cross the Pass. The monks prefer winter to summer for they have more privacy. The dogs have greater freedom, too, for they are allowed to wander outside their enclosure. The only regular visitors to the monastery in winter are parties of skiers who go there at Christmas and Easter. These young people, who love the peace of the mountains, always receive a warm welcome at St Bernard's monastery.

9.

By now, a rocket will have set off on its
35 million mile trip to Mars and scien-
tists must be waiting anxiously for the
results. The rocket will be travelling for
six months before it reaches the planet.
It contains a number of scientific instruments, including a television camera. Any pictures that are taken will have to travel for three minutes before they reach the earth. If the pictures are successful, they may solve a number of problems about Mars and provide information about the markings on its surface which, nearly 100 years ago, the astronomer, Schiaparelli, thought to be canals.
It will be a long time before any landing on Mars can be attempted. This will only be possible when scientists have learnt a lot more about the atmosphere that surrounds the planet. If a satellite can one day be put into orbit round Mars, scientists will be able to find out a great deal. An interesting suggestion for measuring the atmosphere around Mars has been put forward. A rubber ball containing a radio transmitter could be dropped from a satellite so that it would fall towards the surface of the planet. The radio would signal the rate which the ball was slowed down and scientists would be able to calculate how dense the atmosphere is. It may even be possible to drop a capsule containing scientific instruments on to the planet's surface. Only when a great deal more information has been obtained, will it be possible to plan a manned trip to Mars.

10 | The loss of the Titanic[1]

The great ship, *Titanic*, sailed for New York from Southampton on April 10th, 1912. She was carrying 1316 passengers and a crew of 89l. Even by modern standards, the 46,000 ton *Titanic* was a colossal ship. At that time, however, she was not only the largest ship that had ever been built, but was regarded as unsinkable, for she had sixteen watertight compartments. Even if two of these were flooded, she would still be able to float. The tragic sinking of this great liner will always be remembered, for she went down on her first voyage with heavy loss of life.

Four days after setting out, while the Titanic was sailing across the icy waters of the North Atlantic, a huge iceberg was suddenly spotted by a look-out. After the alarm had been given, the great ship turned sharply to avoid a direct collision. The *Titanic* turned just in time, narrowly missing the immense wall of ice which rose over 100 feet out of the water beside her. Suddenly, there was a slight trembling sound from below, and the captain went down to see what had happened. The noise had been so faint that no one thought that the ship had been damaged. Below, the captain realized to his horror that the *Titanic* was sinking rapidly, for five of her sixteen water-tight compartments had already been flooded! The order to abandon ship was given and hundreds of people plunged into the icy water. As there were not enough life-boats for everybody, 1500 lives were lost.

11 | Not guilty

Going through the Customs is a tiresome business. The strangest thing about it is that really honest people are often made to feel guilty. The hardened professional smuggler, on the other hand, is never troubled by such feelings, even if he has five hundred gold watches hidden in his suitcase. When I returned from abroad recently, a particularly officious young Customs Officer clearly regarded me as a smuggler.

'Have you anything to declare?' he asked, looking me in the eye.

'No,' I answered confidently.

'Would you mind unlocking this suitcase please?'

'Not at all,' I answered.

The Officer went through the case with great care. All the things I had packed so carefully were soon in a dreadful mess. I felt sure I would never be able to close the case again. Suddenly, I saw the Officer's face light up. He had spotted a tiny bottle at the bottom of my case and he pounced on it with delight. 'Perfume, eh?' he asked sarcastically. 'You should have declared that.'

Perfume is not exempt from import duty.'

[1] The RMS **Titanic** was an Olympic-class passenger liner owned by the White Star Line and built at the Harland and Wolff shipyard in Belfast. For her time, she was the largest passenger steamship in the world.

'But it isn't perfume,' I said.' It's hair-oil.' Then I added with a smile,' It's a strange mixture I make myself.'
As I expected, he did not believe me.
'Try it!' I said encouragingly.
The Officer unscrewed the cap and put the bottle to his nostrils. He was greeted by an unpleasant smell which convinced him that I was telling the truth.
A few minutes later, I was able to hurry away with precious chalk-marks on my baggage.

12 | Life on a desert land

Most of us have formed an unrealistic picture of life on a desert island. We sometimes imagine a desert island to be a sort of paradise where the sun always shines. Life there is simple and good. Ripe fruit falls from the trees and you never have to work. The other side of the picture is quite the opposite. Life on a desert island is wretched. You either starve to death or live like Robinson Crusoe[1], waiting for a boat which never comes. Perhaps there is an element of truth in both these pictures, but few of us have had the opportunity to find out.
Two men who recently spent five days on a coral island wished they had stayed there longer. They were taking a badly damaged boat from the Virgin Islands to Miami to have it repaired. During the journey, their boat began to sink. They quickly loaded a small rubber dinghy with food, matches, and tins of beer and rowed for a few miles across the Caribbean until they arrived at a tiny coral island. There were hardly any trees on the island and there was no water, but this did not prove to be a problem. The men collected rain-water in the rubber dinghy. As they had brought a spear gun with them, they had plenty to eat. They caught lobster and fish every day, and, as one of them put it 'ate like kings'. When a passing tanker rescued them five days later, both men were genuinely sorry that they had to leave.

13 | "It's only me"

After her husband had gone to work, Mrs Richards sent her children to school and went upstairs to her bedroom. She was too excited to do any housework that morning, for in the evening she would be going to a fancy dress party with her husband. She intended to dress up as a ghost and as she had made her costume the night before, she was impatient to try it on. Though the costume consisted only of a sheet, it was very effective. After putting it on, Mrs Richards went downstairs. She wanted to find out whether it would be comfortable to wear.

[1] **Robinson Crusoe** is a novel by Daniel Defoe, first published in 1719 and sometimes regarded as the first novel in English. The book is a fictional autobiography of the title character, an English castaway who spends 28 years on a remote tropical island near Venezuela, encountering Native Americans, captives, and mutineers before being rescued. This device, presenting an account of supposedly factual events, is known as a "false document" and gives a realistic frame story.

Just as Mrs Richards was entering the dining-room, there was a knock on the front door. She knew that it must be the baker. She had told him to come straight in if ever she failed to open the door and to leave the bread on the kitchen table. Not wanting to frighten the poor man, Mrs Richards quickly hid in the small store-room under the stairs. She heard the front door open and heavy footsteps in the hall. Suddenly the door of the store-room was opened and a man entered. Mrs Richards realized that it must be the man from the Electricity Board who had come to read the meter. She tried to explain the situation, saying 'It's only me', but it was too late. The man let out a cry and jumped back several paces. When Mrs Richards walked towards him, he fled, slamming the door behind him.

14 | A noble gangster

There was a time when the owners of shop and businesses in Chicago had to pay large sums of money to gangsters in return for' protection' If the money was not paid promptly, the gangsters would quickly put a man out of business by destroying his shop. Obtaining 'protection money' is not a modern crime. As long ago as the fourteenth century, an Englishman, Sir John Hawkwood[1], made the remarkable discovery that people would rather pay large sums of money than have their life work destroyed by gangsters.

Six hundred years ago, Sir John Hawkwood arrived in Italy with a band of soldiers and settled near Florence. He soon made a name for himself and came to be known to the Italians as Giovanni Acuto. Whenever the Italian city-states were at war with each other, Hawkwood used to hire his soldiers to princes who were willing to pay the high price he demanded. In times of peace, when business was bad, Hawkwood and his men would march into a city-state and, after burning down a few farms, would offer to go away if protection money was paid to them. Hawkwood made large sums of money in this way. In spite of this, the Italians regarded him as a sort of hero. When he died at the age of eighty, the Florentines gave him a state funeral and had a picture painted which was dedicated to the memory of 'the most valiant soldier and most notable leader, Signor Giovanni Haukodue'.

15 | Fifty pence worth of trouble

Children always appreciate small gifts of money. Father, of course, provides a regular supply of pocket-money, but uncles and aunts are always a source of extra income. With some children, small sums go a long way. If sixpences[2] are not exchanged for sweets, they rattle for months inside

[1] Sir **John Hawkwood** (1320-1394) was an English mercenary or condottiero in 14th century Italy. The French chronicler Jean Froissart knew him as Haccoude and Italians as Giovanni Acuto. Hawkwood served first the Pope and then various factions in Italy for over 30 years.

[2] The **sixpence**, known colloquially as the tanner or half-shilling, was a British pre-decimal coin worth six pence, 1/40th of a pound sterling.

money-boxes. Only very thrifty children manage to fill up a money-box. For most of them, sixpence is a small price to pay for a satisfying bar of chocolate.
My nephew, George, has a money-box but it is always empty. Very few of the sixpences I have given him have found their way there. I gave him sixpence yesterday and advised him to save it. Instead, he bought himself sixpence worth of trouble. On his way to the sweet shop, he dropped his sixpence and it rolled along the pavement and then disappeared down a drain. George took off his jacket, rolled up his sleeves and pushed his right arm through the drain cover. He could not find his sixpence anywhere, and what is more, he could not get his arm out. A crowd of people gathered round him and a lady rubbed his arm with soap and butter, but George was firmly stuck. The fire-brigade was called and two firemen freed George using a special type of grease. George was not too upset by his experience because the lady who owns the sweet shop heard about his troubles and rewarded him with a large box of chocolates.

16 | Mary had a little lamb[1]

Mary and her husband Dimitri lived in
the tiny village of Perachora in southern
Greece. One of Mary's prize possessions
was a little white lamb which her husband
had given her. She kept it tied to a tree in a field during the day and went to fetch it every evening. One evening, however, the lamb was missing. The rope had been cut, so it was obvious that the lamb had been stolen. When Dimitri came in from the fields, His wife told him what had happened. Dimitri at once set out to find the thief. He knew it would not prove difficult in such a small village. After telling several of his friends about the theft, Dimitri found out that his neighbour, Aleko, had suddenly acquired a new lamb. Dimitri immediately went to Aleko's house and angrily accused him of stealing the lamb. He told him he had better return it or he would call the police. Aleko denied taking it and led Dimitri into his back-yard. It was true that he had just bought a lamb, he explained, but his lamb was black. Ashamed of having acted so rashly, Dimitri apologized to Aleko for having accused him. While they were talking it began to rain and Dimitri stayed in Aleko's house until the rain stopped. When he went outside half an hour later, he was astonished to find that the little black lamb was almost white. Its wool, which had been dyed black, had been washed clean by the rain!

17 | The longest suspension bridge in the world

Verrazano, an Italian about whom little
is known, sailed into New York Harbour
in 1524 and named it Angouleme. He

[1] "**Mary Had a Little Lamb**" is a nursery rhyme of 19th-century American origin.
Original text—Mary had a little lamb, Its fleece was white as snow; And everywhere that Mary went, The lamb was sure to go. He followed her to school one day; Which was against the rule; It made the children laugh and play; To see a lamb at school. "Why does the lamb love Mary so?" The eager children cry; "Why, Mary loves the lamb, you know," The teacher did reply.

described it as 'a very agreeable situation located within two small hills in the midst of which flowed a great river.' Though Verrazano is by no means considered to be a great explorer, his name will probably remain immortal, for on November 21st, 1964, the greatest bridge in the world was named after him.

The Verrazano Bridge[1], which was designed by Othmar Ammann[2], joins Brooklyn to Staten Island. It has a span of 4260 feet. The bridge is so long that the shape of the earth had to be taken into account by its designer. Two great towers support four huge cables. The towers are built on immense underwater platforms made of steel and concrete. The platforms extend to a depth of over 100 feet under the sea. These alone took sixteen months to build. Above the surface of the water, the towers rise to a height of nearly 700 feet. They support the cables from which the bridge has been suspended. Each of the four cables contains 26,108 lengths of wire. It has been estimated that if the bridge were packed with cars, it would still only be carrying a third of its total capacity. However, size and strength are not the only important things about this bridge. Despite its immensity, it is both simple and elegant, fulfilling its designer's dream to create 'an enormous object drawn as faintly as possible'.

18 | Electric currents in modern art

Modern sculpture rarely surprises us any more. The idea that modern art can only be seen in museums is mistaken. Even people who take no interest in art cannot have failed to notice examples of modern sculpture on display in public places. Strange forms stand in gardens, and outside buildings and shops. We have got quite used to them. Some so-called 'modern' pieces have been on display for nearly fifty years.

In spite of this, some people—including myself—were surprised by a recent exhibition of modern sculpture. The first thing I saw when I entered the art gallery was a notice which said: 'Do not touch the exhibits. Some of them are dangerous!' The objects on display were pieces of moving sculpture. Oddly shaped forms that are suspended from the ceiling and move in response to a gust of wind are quite familiar to every- body. These objects, however, were different. Lined up against the wall, there were long thin wires attached to metal spheres. The spheres had been magnetized and attracted or repelled each other all the time. In the centre of the hall, there were a number of tall structures which contained coloured lights. These lights flickered continuously like traffic lights which have gone mad. Sparks were emitted from small black boxes and red lamps flashed on and off angrily. It was rather like an exhibition of prehistoric electronic equipment. These peculiar forms not only seemed designed to shock people emotionally, but to give them electric shocks as well!

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[1] The **Verrazano-Narrows Bridge** is a double-decked suspension bridge that connects the boroughs of Staten Island and Brooklyn on Long Island in New York City at the Narrows, the reach connecting the relatively protected upper bay with the larger lower bay.

[2] **Othmar Hermann Ammann** (March 26, 1879 – September 22, 1965) was a Swiss-born American structural engineer whose designs include the George Washington Bridge, Verrazano-Narrows Bridge, and Bayonne Bridge. A residential building is named after him on the Stony Brook University campus

19 | A very dear cat

Kidnappers are rarely interested in Animals, but they recently took considerable interest in Mrs Eleanor Ramsay's cat. Mrs Eleanor Ramsay, a very wealthy old lady, has shared a flat with her cat, Rastus, for a great many years. Rastus leads an orderly life. He usually takes a short walk in the evenings and is always home by seven o'clock. One evening, however, he failed to arrive. Mrs Ramsay got very worried. She looked everywhere for him but could not find him.

Three day after Rastus' disappearance, Mrs Ramsay received an anonymous letter. The writer stated that Rastus was in safe hands and would be returned immediately if Mrs Ramsay paid a ransom of £1000. Mrs Ramsay was instructed to place the money in a cardboard box and to leave it outside her door. At first, she decided to go to the police, but fearing that she would never see Rastus again —the letter had made that quite clear—she changed her mind. She drew £1000 from her bank and followed the kidnapper's instructions. The next morning, the box had disappeared but Mrs Ramsay was sure that the kidnapper would keep his word. Sure enough, Rastus arrived punctually at seven o'clock that evening. He looked very well, though he was rather thirsty, for he drank half a bottle of milk. The police were astounded when Mrs Ramsay told them what she had done. She explained that Rastus was very dear to her. Considering the amount she paid, he was dear in more ways than one!

20 | Pioneer pilots

In 1908 Lord Northcliffe[1] offered a prize of £1000 to the first man who would fly across the English Channel[2]. Over a year passed before the first attempt was made.

On July 19th, 1909, in the early morning, Hubert Latham took off from the French coast in his plane the 'Antoinette IV'. He had travelled only seven miles across the Channel when his engine failed and he was forced to land on the sea. The 'Antoinette' floated on the water until Latham was picked up by a ship.

Two days later, Louis Bleriot arrived near Calais with a plane called 'No. XI'. Bleriot had been making planes since 1905 and this was his latest model. A week before, he had completed a successful overland flight during which he covered twenty-six miles. Latham, however did not give up easily. He, too, arrived near Calais on the same day with a new 'Antonette'. It looks as if there would be an exciting race across the

[1] **Alfred Charles William Harmsworth**, later Alfred Lord Northcliffe (1865-1922) was a British newspaper pioneer who revolutionised magazine and newspaper publishing in Britain in the early years of the twentieth century, and who wielded significant political power through the medium of his popular dailies.

[2] The **English Channel** (French: La Manche, "the sleeve") is an arm of the Atlantic Ocean that separates England from northern France, and joins the North Sea to the Atlantic. It is about 562 km (350 miles) long and varies in width from 240 km (150 miles) at its widest, to only 34 km (21 miles) in the Strait of Dover. It is the smallest of the shallow seas around the continental shelf of Europe, covering an area of some 75,000 square kilometres (29,000 sq mi).

Channel. Both planes were going to take off on July 25th, but Latham failed to get up early enough. After making a short test flight at 4.15 a.m., Bleriot set off half an hour later. His great flight lasted thirty seven minutes. When he landed near Dover, the first person to greet him was a local policeman. Latham made another attempt a week later and got within half a mile of Dover, but he was unlucky again. His engine failed and he landed on the sea for the second time.

21 | Daniel Mendoza[1]

Boxing matches were very popular in England two hundred years ago. In those days, boxers fought with bare fists for Prize money. Because of this, they were known as 'prize-fighters'. However, boxing was very crude, for there were no rules and a prize-fighter could be seriously injured or even killed during a match.

One of the most colourful figures in boxing history was Daniel Mendoza who was born in 1764. The use of gloves was not introduced until 1860 when the Marquis of Queensberry drew up the first set of rules. Though he was technically a prize-fighter, Mendoza did much to change crude prize-fighting into a sport, for he brought science to the game. In his day, Mendoza enjoyed tremendous popularity. He was adored by rich and poor alike. Mendoza rose to fame swiftly after a boxing-match when he was only fourteen years old. This attracted the attention of Richard Humphries who was then the most eminent boxer in England. He offered to train Mendoza and his young pupil was quick to learn. In fact, Mendoza soon became so successful that Humphries turned against him. The two men quarrelled bitterly and it was clear that the argument could only be settled by a fight. A match was held at Stilton where both men fought for an hour. The public bet a great deal of money on Mendoza, but he was defeated. Mendoza met Humphries in the ring on a later occasion and he lost for a second time. It was not until his third match in 1790 that he finally beat Humphries and became Champion of England. Meanwhile, he founded a highly successful Academy and even Lord Byron became one of his pupils. He earned enormous sums of money and was paid as much as £100 for a single appearance. Despite this, he was so extravagant that he was always in debt. After he was defeated by a boxer called Gentleman Jackson, he was quickly forgotten. He was sent to prison for failing to pay his debts and died in poverty in 1836.

22 | By heart

Some plays are so successful that they run for years on end. In many ways, this is unfortunate for the poor actors who are required to go on repeating the same lines night after night. One would expect them to know their parts by heart and never have cause to falter. Yet this is not always the case.

[1] **Daniel Mendoza** (5 July 1764[1] – 3 September 1836) (often known as Dan Mendoza) was an English prizefighter, who was boxing champion of England 1792-95. He is sometimes called the father of scientific boxing.

A famous actor in a highly successful play was once cast in the role of anaristocrat who had been imprisoned in the Bastille[1] for twenty years. In the last act, a gaoler would always come on to the stage with a letter which he would hand to the prisoner. Even though thenoble was expected to read the letter at each performance, he always insisted that it should be written out in full. One night, the gaoler decided to play a joke on his colleague to find out if, after so many performances, he had managed to learn the contents of the letter by heart. The curtain went up on the final act of the play and revealed the aristocrat sitting alone behind bars in his dark cell. Just then, the gaoler appeared with the precious letter in his hands. He entered the cell and presented the letter to the aristocrat. But the copy he gave him had not been written out in full as usual. It was simply a blank sheet of paper. The gaoler looked on eagerly, anxious to see if his fellow-actor had at last learnt his lines. The noble stared at the blank sheet of paper for a few seconds. Then, squinting his eyes, he said: 'The light is dim. Read the letter to me.' And he promptly handed the sheet of paper to the gaoler. Finding that he could not remember a word of the letter either, the gaoler replied: 'The light is indeed dim, sire. I must get my glasses.' With this, he hurried off the stage. Much to the aristocrat's amusement, the gaoler returned a few moments later with a pair of glasses and the usual copy of the letter which he proceeded to read to the prisoner.

23 | One man's meat is another man's poison

People become quite illogical when they
try to decide what can be eaten and what
cannot be eaten. If you lived in the
Mediterranean, for instance, you would consider octopus a great delicacy. You would not be able to understand why some people find it repulsive. On the other hand, your stomach would turn at the idea of frying potatoes in animal fat—the normally accepted practice in many northern countries. The sad truth is that most of us have been brought up to eat certain foods and we stick to them all our lives.

No creature has received more praise and abuse than the common garden snail. Cooked in wine, snails are a great luxury in various parts of the world. There are countless people who, ever since their early years, have learned to associate snails with food. My friend, Robert, lives in a country where snails are despised.

As his flat is in a large town, he has no garden of his own. For years he has been asking me to collect snails from my garden and take them to him. The idea never appealed to me very much, but one day, after a heavy shower, I happened to be walking in my garden when I noticed a huge number of snails taking a stroll on some of my prize plants. Acting on a sudden impulse, I collected several dozen, put them in a paper bag, and took them to Robert. Robert was delighted to see me and equally pleased with my

[1] **The Bastille** was a fortress-prison in Paris, known formally as Bastille Saint-Antoine—Number 232, Rue Saint-Antoine—best known today because of the storming of the Bastille on 14 July 1789, which along with the Tennis Court Oath is considered the beginning of the French Revolution. The event was commemorated one year later by the Fête de la Fédération. The French national holiday, celebrated annually on 14 July is officially the Fête Nationale, and officially commemorates the Fête de la Fédération, but it is commonly known in English as Bastille Day. Bastille is a French word meaning "castle" or "stronghold", or "bastion"; used with a definite article (la Bastille in French, the Bastille in English), it refers to the prison.

little gift. I left the bag in the hall and Robert and I went into the living-room where we talked for a couple of hours. I had forgotten all about the snails when Robert suddenly said that I must stay to dinner. Snails would, of course, be the main dish. I did not fancy the idea and I reluctantly followed Robert out of the room. To our dismay, we saw that there were snails everywhere: they had escaped from the paper bag and had taken complete possession of the hall! I have never been able to look at a snail since then.

24 | A skeleton in the cupboard

We often read in novels how a seemingly respectable person or family has some terrible secret which has been concealed from strangers for years. The English language possesses a vivid saying to describe this sort of situation. The terrible secret is called 'a skeleton in the cupboard'. At some dramatic moment in the story the terrible secret becomes known and a reputation is ruined. The reader's hair stands on end when he reads in the final pages of the novel that the heroine, a dear old lady who had always been so kind to everybody, had, in her youth, poisoned every one of her five husbands.

It is all very well for such things to occur in fiction. To varying degrees, we all have secrets which we do not want even our closest friends to learn, but few of us have skeletons in the cupboard. The only person I know who has a skeleton in the cupboard is George Carlton, and he is very proud of the fact. George studied medicine in his youth. Instead of becoming a doctor, however, he became a successful writer of detective stories. I once spent an uncomfortable week-end which I shall never forget at his house. George showed me to the guestroom which, he said, was rarely used. He told me to unpack my things and then come down to dinner. After I had stacked my shirts and underclothes in two empty drawers, I decided to hang in the cupboard one of the two suits I had brought with me. I opened the cupboard door and then stood in front of it petrified. A skeleton was dangling before my eyes. The sudden movement of the door made it sway slightly and it gave me the impression that it was about to leap out at me. Dropping my suit, I dashed downstairs to tell George. This was worse than 'a terrible secret'; this was a real skeleton! But George was unsympathetic. 'Oh, that,' he said with a smile as if he were talking about an old friend. 'That's Sebastian. You forget that I was a medical student once upon a time.'

25 | The Cutty Sark[1]

One of the most famous sailing ships of the nineteenth century, the Cutty Sark, can still be seen at Greenwich. She stands on dry land and is visited by

[1] The **Cutty Sark** is a clipper ship. Built in 1869, she served as a merchant vessel (the last clipper to be built for that purpose), and then as a training ship until being put on public display in 1954. She is preserved in dry dock at Greenwich in London, but was badly damaged in a fire on 21 May 2007 while undergoing extensive restoration.

thousands of people each year. She serves as an impressive reminder of the greatships of the past. Before they were replaced by steam-ships, sailing vessels like the Cutty Sark were used to carry tea from China and wool from Australia.

The Cutty Sark was one of the fastest sailing ships that has ever been built. The only other ship to match her was the Thermopylae[1]. Both these ships set out from Shanghai on June 18th, 1872 on an exciting race to England. This race, which went on for exactly four months, was the last of its kind. It marked the end of the great tradition of ships with sails and the beginning of a new era. The first of the two ships to reach Java after the race had begun was the Thermopylae, but on the Indian Ocean, the Cutty Sark took the lead. It seemed certain that she would be the first ship home, but during the race she had a lot of bad luck. In August, she was struck by a very heavy storm during which her rudder was torn away. The Cutty Sark rolled from side to side and it became impossible to steer her. A temporary rudder was made on board from spare planks and it was fitted with great difficulty. This greatly reduced the speed of the ship, for there was danger that if she travelled too quickly, this rudder would be torn away as well. Because of this, the Cutty Sark lost her lead. After crossing the equator, the captain called in at a port to have a new rudder fitted, but by now the Thermopylae was over five hundred miles ahead. Though the new rudder was fitted at tremendous speed, it was impossible for the Cutty Sark to win. She arrived in England a week after the Thermopylae. Even this was remarkable, considering that she had had so many delays. There is no doubt that if she had not lost her rudder she would have won the race easily.

26 | Wanted: a large biscuit tin

No one can avoid being influenced by advertisements. Much as we may pride ourselves on our good taste, we are no longer free to choose the things we want, for advertising exerts a subtle influence on us. In their efforts to persuade us to buy this or that product, advertisers have made a close study of human nature and have classified all our little weaknesses. Advertisers discovered years ago that all of us love to get something for nothing.

An advertisement which begins with the magic word FREE can rarely go wrong. These days, advertisers not only offer free samples but free cars, free houses, and free trips round the world as well. They devise hundreds of competitions which will enable us to win huge sums of money. Radio and television have made it possible for advertisers to capture the attention of millions of people in this way. During a radio programme, a company of biscuit manufacturers once asked listeners to bake biscuits and send them to their factory. They offered to pay $2 a pound for the biggest biscuit baked by a listener. The response to this competition was tremendous. Before long, biscuits of all shapes and sizes began arriving at the factory. One lady brought in a biscuit on a

[1] **Thermopylae** was an extreme composite clipper ship built in 1868 by Walter Hood & Co of Aberdeen to the design of Bernard Weymouth of London for the White Star Line of Aberdeen. She measured 212'0"×36'0"×20'9" and tonnage 991 GRT, 948 NRT and 927 tons under deck. The under deck coefficient was 0,58. Rigged with royal sails, single topgallant and double top-sails.

wheelbarrow. It weighed nearly 500 pounds. A little later, a man came along with a biscuit which occupied the whole boot of his car. All the biscuits that were sent were carefully weighed. The largest was 713 pounds. It seemed certain that this would win the prize. But just before the competition closed, a lorry arrived at the factory with a truly colossal biscuit which weighed 2400 pounds. It had been baked by a college student who had used over 1000 pounds of flour, 800 pounds of sugar, 200 pounds of fat, and 400 pounds of various other ingredients. It was so heavy that a crane had to be used to remove it from the lorry. The manufacturers had to pay more money than they had anticipated, for they bought the biscuit from the student for $4800.

27 | Nothing to sell and nothing to buy

It has been said that everyone lives by selling something. In the light of this statement, teachers live by selling knowledge, philosophers by selling wisdom and priests by selling spiritual comfort. Though it may be possible to measure the value of material goods in terms of money, it is extremely difficult to estimate the true value of the services which people perform for us. There are times when we would willingly give everything we possess to save our lives, yet we might grudge paying a surgeon a high fee for offering us precisely this service. The conditions of society are such that skills have to be paid for in the same way thatgoods are paid for at a shop. Everyone has something to sell. Tramps seem to be the only exception to this general rule. Beggars almost sell themselves as human beings to arouse the pity of passers-by. But real tramps are not beggars. They have nothing to sell and require nothing from others. In seeking independence, they do not sacrifice their human dignity. A tramp may ask you for money, but he will never ask you to feel sorry for him. He has deliberately chosen to lead the life he leads and is fully aware of the consequences He may never be sure where the next meal is coming from, but he is free from the thousands of anxieties which afflict other people. His few material possession make it possible for him to move from place to place with ease. By having to sleep in the open, he gets far closer to the world of nature than most of us ever do. He may hunt, beg, or steal occasionally to keep himself alive; he may even in times of real need, do a little work; but he will never sacrifice his freedom. We often speak of tramps with contempt and put them in the same class as beggars, but how many of us can honestly say that we have not felt a little envious of their simple way of life and their freedom from care?

28 | Five pound too dear

Small boats loaded with wares sped to the great liner as she was entering the harbour. Before she had anchored, the men from the boats had climbed on board and the decks were soon covered with colourful rugs from Persia, silks from India, copper coffee pots, and beautiful handmade silver-ware. It was difficult not to be tempted.

Many of the tourists on board had begun bargaining with the tradesmen, but I decided not to buy anything until I had disembarked.

I had no sooner got off the ship than I was assailed by a man who wanted to sell me a diamond ring. I had no intention of buying one, but I could not conceal the fact that I was impressed by the size of the diamonds. Some of them were as big as marbles. The man went to great lengths to prove that the diamonds were real. As we were walking past a shop, he held a diamond firmly against the window and made a deep impression in the glass. It took me over half an hour to get rid of him. The next man to approach me was selling expensive pens and watches. I examined one of the pens closely. It certainly looked genuine. At the base of the gold cap, the words 'made in the U.S.A.' had been neatly inscribed. The man said that the pen was worth £10, but as a special favour, he would let me have it for £8. I shook my head and held up a finger indicating that I was willing to pay a pound. Gesticulating wildly, the man acted as if he found my offer outrageous, but he eventually reduced the price to £3. Shrugging my shoulders, I began to walk away when, a moment later, he ran after me and thrust the pen into my hands. Though he kept throwing up his arms in despair, he readily accepted the pound I gave him. I felt especially pleased with my wonderful bargain—until I got back to the ship. No matter how hard I tried, it was impossible to fill this beautiful pen with ink and to this day it has never written a single word!

29 | Funny or not?

Whether we find a joke funny or not
largely depends on where we have been
brought up. The sense of humour is
mysteriously bound up with national
characteristics. A Frenchman, for instance, might find it hard to laugh at a Russian joke. In the same way, a Russian might fail to see anything amusing in a joke which would make an Englishman laugh to tears.

Most funny stories are based on comic situations. In spite of national differences, certain funny situations have a universal appeal. No matter where you live, you would find it difficult not to laugh at, say, Charlie Chaplin's[1] early films. However, a new type of humour, which stems largely from America, has recently come into fashion. It is cal1ed 'sick humour'. Comedians base their jokes on tragic situations like violent death or serious accidents. Many people find this sort of joke distasteful. The following example of 'sick humour' will enable you to judge for yourself.

A man who had broken his right leg was taken to hospital a few weeks before Christmas. From the moment he arrived there, he kept on pestering his doctor to tell him when he would be able to go home. He dreaded having to spend Christmas in hospital. Though the doctor did his best, the patient's recovery was slow. On Christmas day, the man still had his right leg in plaster. He spent a miserable day in bed thinking of all the fun he was missing. The following day, however, the doctor

[1] Sir **Charles Spencer Chaplin**, KBE (16 April 1889 – 25 December 1977), better known as Charlie Chaplin, was an Academy Award-winning English comedic actor and filmmaker. Chaplin became one of the most famous actors as well as a notable filmmaker, composer and musician in the early to mid "Classical Hollywood" era of American cinema.

consoled him by telling him that his chances of being able to leave hospital in time for New Year celebrations were good. The man took heart and, sure enough, on New Year's Eve he was able to hobble along to a party. To compensate for his unpleasant experiences in hospital, the man drank a little more than was good for him. In the process, he enjoyed himself thoroughly and kept telling everybody how much he hated hospitals. He was still mumbling something about hospitals at the end of the party when he slipped on a piece of ice and broke his left leg.

30 | The death of a ghost

For years villagers believed that Endley farm was haunted. The farm was owned by two brothers, Joe and Bert Cox. They employed a few farm hands, but no one was willing to work there long. Every time a worker gave up his job, he told the same story. Farm labourers said that they always woke up to find the work had been done overnight. Hay had been cut and cow sheds had been cleaned. A farm worker, who stayed up all night, claimed to have seen a figure cutting corn in the moonlight. In time, it became an accepted fact that the Cox brothers employed a conscientious ghost that did most of their work for them. No one suspected that there might be someone else on the farm who had never been seen. This was indeed the case. A short time ago, villagers were astonished to learn that the ghost of Endley had died. Everyone went to the funeral, for the 'ghost' was none other than Eric Cox, a third brother who was supposed to have died as a young man. After the funeral, Joe and Bert revealed a secret which they had kept for over forty years. Eric had been the eldest son of the family. He had been obliged to join the army during the first World War. As he hated army life he decided to desert his regiment. When he learnt that he would be sent abroad, he returned to the farm and his farther hid him until the end of the war. Fearing the authorities, Eric remained in hiding after the war as well. His father told everybody that Eric had been killed in action. The only other people who knew the secret were Joe and Bert. They did not even tell their wives. When their father died, they thought it their duty to keep Eric in hiding. All these years, Eric had lived as a recluse. He used to sleep during the day and work at night, quite unaware of the fact that he had become the ghost of Endley. When he died, however, his brothers found it impossible to keep the secret any longer.

31 | A lovable eccentric

True eccentrics never deliberately set out to draw attention to themselves. They disregard social conventions without being conscious that they are doing anything extraordinary. This invariably wins them the love and respect of others, for they add colour to the dull routine of everyday life. Up to the time of his death, Richard Colson was one of the most notable figures in our town. He was a shrewd and wealthy

business-man, but the ordinary town-folk hardly knew anything about this side of his life. He was known to us all as Dickie and his eccentricity had become legendary long before he died.

Dickie disliked snobs intensely. Though he owned a large car, he hardly ever used it, preferring always to go on foot. Even when it was raining heavily, he refused to carry an umbrella. One day, he walked into an expensive shop after having been caught in a particularly heavy shower. He wanted to buy a £300 fur coat for his wife, but he was in such a bedraggled condition that an assistant refused to serve him. Dickie left the shop without a word and returned carrying a large cloth bag. As it was extremely heavy, he dumped it on the counter. The assistant asked him to leave, but Dickie paid no attention to him and requested to see the manager. Recognizing who the customer was, the manager was most apologetic and reprimanded the assistant severely. When Dickie was given the fur coat, he presented the assistant with the cloth bag. It contained £300 in pennies. He insisted on the assistant's counting the money before he left- 72,000 pennies in all! On another occasion, he invited a number of important critics to see his private collection of modern paintings. This exhibition received a great deal of attention in the press, for though the pictures were supposed to be the work of famous artists, they had in fact been painted by Dickie. It took him four years to stage this elaborate joke simply to prove that critics do not always know what they are talking about.

32 | A lost ship

The salvage operation had been a com-
plete failure. The small ship, Elkor,
which had been searching the Barents
Sea for weeks, was on its way home. A
radio message from the mainland had been received by the ship's captain instructing him to give up the search. The captain knew that another attempt would be made later, for the sunken ship he was trying to find had been carrying a precious cargo of gold bullion.

Despite the message, the captain of the Elkor decided to try once more. The seabed was scoured with powerful nets and there was tremendous excitement on board when a chest was raised from the bottom. Though the crew were at first under the impression that the lost ship had been found, the contents of the sea-chest proved them wrong. What they had in fact found was a ship which had been sunk many years before. The chest contained the personal belongings of a seaman, Alan Fielding. There were books, clothing and photographs, together with letters which the seaman had once received from his wife. The captain of the Elkor ordered his men to salvage as much as possible from the wreck. Nothing of value was found, but the numerous items which were brought to the surface proved to be of great interest. From a heavy gun that was raised, the captain realized that the ship must have been a cruiser. In another sea-chest, which contained the belongings of a ship's officer, there was an unfinished letter which had been written on March 14th, 1943. The captain learnt from the letter that the name of

the lost ship was the Karen. The most valuable find of all was the ship's log book, parts of which it was still possible to read. From this the captain was able to piece together all the information that had come to light. The Karen had been sailing in a convoy to Russia when she was torpedoed by an enemy submarine. This was later confirmed by a naval official at the Ministry of Defense after the Elkor had returned home. All the items that were found were sent to the War Museum.

33 | A day to remember

We have all experienced days when everything goes wrong. A day may begin well enough, but suddenly everything seems to get out of control. What invariably happens is that a great number of things choose to go wrong at precisely the same moment. It is as if a single unimportant event set up a chain of reactions. Let us suppose that you are preparing a meal and keeping an eye on the baby at the same time. The telephone rings and this marks the prelude to an unforeseen series of catastrophes. While you are on the phone, the baby pulls the table-cloth off the table smashing half your best crockery and cutting himself in the process. You hang up hurriedly and attend to baby, crockery, etc. Meanwhile, the meal gets burnt. As if this were not enough to reduce you to tears, your husband arrives, unexpectedly bringing three guests to dinner. Things can go wrong on a big scale as a number of people recently discovered in Parramatta[1], a suburb of Sydney. During the rush hour one evening two cars collided and both drivers began to argue. The woman immediately behind the two cars happened to be a learner. She suddenly got into a panic and stopped her car. This made the driver following her brake hard. His wife was sitting beside him holding a large cake. As she was thrown forward, the cake went right through the windscreen and landed on the road. Seeing a cake flying through the air, a lorry-driver who was drawing up alongside the car, pulled up all of a sudden. The lorry was loaded with empty beer bottles and hundreds of them slid off the back of the vehicle and on to the road. This led to yet another angry argument. Meanwhile, the traffic piled up behind. It took the police nearly an hour to get the traffic on the move again. In the meantime, the lorry- driver had to sweep up hundreds of broken bottles. Only two stray dogs benefited from all this confusion, for they greedily devoured what was left of the cake. It was just one of those days!

34 | A happy discovery

Antique shops exert a peculiar fascination on a great many people. The more expensive kind of antique shop where rare objects are beautifully displayed in glass

[1] **Parramatta** (pronounced /□pærɑ mætɑ /) is a suburb in the west of Sydney, New South Wales, Australia.[4][11][12] It sits on the bank of the Parramatta River, 23 kilometres (14 mi) west of the Sydney central business district, approximately at the geographical centre of its metropolitan area. It is known colloquially as 'Parra'.

cases to keep them free from dust is usually a forbidding place. But no one has to muster up courage to enter a less pretentious antique shop. There is always hope that in its labyrinth of musty, dark, disordered rooms a real rarity will be found amongst the piles of assorted junk that litter the floors.

No one discovers a rarity by chance. A truly dedicated searcher for art treasures must have patience, and above all, the ability to recognize the worth of something when he sees it. To do this, he must be at least as knowledgeable as the dealer. Like a scientist bent on making a discovery, he must cherish the hope that one day he will be amply rewarded. My old friend, Frank Halliday, is just such a person. He has often described to me how he picked up a masterpiece for a mere £5. One Saturday morning, Frank visited an antique shop in my neighbourhood. As he had never been there before, he found a great deal to interest him. The morning passed rapidly and Frank was about to leave when he noticed a large packing-case lying on the floor. The dealer told him that it had just come in, but that he could not be bothered to open it. Frank begged him to do so and the dealer reluctantly prised it open. The contents were disappointing. Apart from an interesting-looking carved dagger, the box was full of crockery, much of it broken. Frank gently lifted the crockery out of the box and suddenly noticed a miniature painting at the bottom of the packing-case. As its composition and line reminded him of an Italian painting he knew well, he decided to buy it. Glancing at it briefly, the dealer told him that it was worth £5. Frank could hardly conceal his excitement, for he knew that he had made a real discovery. The tiny painting proved to be an unknown masterpiece by Correggio[1] and was worth thousands of pounds.

35 | Justice was done

The word justice is usually associated with courts of law. We might say that justice has been done when a man's innocence or guilt has been proved beyond doubt.

Justice is part of the complex machinery of the law. Those who seek it, undertake an arduous journey and can never be sure that they will find it. Judges, however wise or eminent, are human and can make mistakes.

There are rare instances when justice almost ceases to be an abstract conception. Reward or punishment are out quite independent of human interference. At such times, justice acts like a living force. When we use a phrase like it serves him right, we are, in part, admitting that a certain set of circumstances has enabled justice to act of its own accord. When a thief was caught on the premises of a large fur store one morning, the shop assistants must have found it impossible to resist the temptation to say 'it serves him right'. The shop was an old-fashioned one with many large, disused fireplaces and tall, narrow chimneys. Towards midday, a girl heard a muffled cry coming from behind one of the walls. As the cry was repeated several times, she ran to

[1] **Antonio Allegri da Correggio** (August 1489 – March 5, 1534) was the foremost painter of the Parma school of the Italian Renaissance, who was responsible for some of the most vigorous and sensuous works of the 16th century. In his use of dynamic composition, illusionistic perspective and dramatic foreshortening, Correggio prefigured the Rococo art of the 18th century.

tell the manager who promptly rang up the fire-brigade. The cry had certainly come from one of the chimneys, but as there were so many of them, the firemen could not be certain which one it was. They located the right chimney by tapping at the walls and listening for the man's cries. After chipping through a wall which was eighteen inches thick, they found that a man had been trapped in the chimney. As it was extremely narrow, the man was unable to move, but the firemen were eventually able to free him by cutting a huge hole in the wall. The sorry-looking, blackened figure that emerged, at once admitted that he had tried to break into the shop during the night but had got stuck in the chimney. He had been there for nearly ten hours. Justice had been done even before the man was handed over to the police.

36 | A chance in a million

We are less credulous than we used to be
In the nineteenth century, a novelist
would bring his story to a conclusion by
presenting his readers with a series of
coincidences—most of them wildly improbable. Readers happily accepted the fact that an obscure maid-servant was really the hero's mother. A long-lost brother, who was presumed dead, was really alive all the time and wickedly plotting to bring about the hero's downfall. And so on. Modern readers would find such naive solutions totally unacceptable. Yet, in real life, circumstances do sometimes conspire to bring about coincidences which anyone but a nineteenth century novelist would find incredible. A German taxi-driver, Franz Bussman, recently found a brother who was thought to have been killed twenty years before. While on a walking tour with his wife, he stopped to talk to a workman. After they had gone on, Mrs Bussman commented on the workman's close resemblance to her husband and even suggested that he might be his brother. Franz poured scorn on the idea, pointing out that his brother had been killed in action during the war. Though Mrs Bussman was fully acquainted with this story, she thought that there was a chance in a million that she might be right. A few days later, she sent a boy to the workman to ask him if his name was Hans Bussman, Needless to say, the man's name was Hans Bussman and he really was Franz's long-lost brother. When the brothers were re-united, Hans explained how it was that he was still alive. After having been wounded towards the end of the war, he had been sent to hospital and was separated from his unit. The hospital had been bombed and Hans had made his way back into Western Germany on foot. Meanwhile, his unit was lost and all records of him had been destroyed. Hans returned to his family home, but the house had been bombed and no one in the neighbourhood knew what had become of the inhabitants. Assuming that his family had been killed during an air-raid, Hans settled down in a village fifty miles away where he had remained ever since.

37 | The Westhaven Express

We have learnt to expect that trains will
be punctual. After years of pre-con-

ditioning, most of us have developed an unshakable faith in railway time-tables.

Ships may be delayed by storms; air flights may be cancelled because of bad weather; but trains must be on time. Only an exceptionally heavy snow fall might temporarily dislocate railway services. It is all too easy to blame the railway authorities when something does go wrong. The truth is that when mistakes occur, they are more likely to be ours than theirs. After consulting my railway time-table, I noted with satisfaction that there was an express train to Westhaven. It went direct from my local station and the journey lasted a mere hour and seventeen minutes. When I boarded the train, I could not help noticing that a great many local people got on as well. At the time, this did not strike me as odd. I reflected that there must be a great many people besides myself who wished to take advantage of this excellent service. Neither was I surprised when the train stopped at Widley[1], a tiny station a few miles along the line. Even a mighty express train can be held up by signals. But when the train dawdled at station after station, I began to wonder. It suddenly dawned on me that this express was not roaring down the line at ninety miles an hour, but barely chugging along at thirty. One hour and seventeen minutes passed and we had not even covered half the distance. I asked a passenger if this was the Westhaven Express, but he had not even heard of it. I determined to lodge a complaint as soon as we arrived. Two hours later, I was talking angrily to the station-master at Westhaven. When he denied the train's existence, I borrowed his copy of the time-table. There was a note of triumph in my voice when I told him that it was there in black and white. Glancing at it briefly, he told me to look again. A tiny asterisk conducted me to a footnote at the bottom of the page. It said: 'This service has been suspended.'

38 | The first calendar

Future historians will be in a unique position when they come to record the history of our own times. They will hardly know which facts to select from the great mass of evidence that steadily accumulates. What is more they will not have to rely solely on the written word. Films, gramophone records, and magnetic tapes will provide them with a bewildering amount of information. They will be able, as it were, to see and hear us inaction. But the historian attempting to reconstruct the distant past is always faced with a difficult task. He has to deduce what he can from the few scanty clues available. Even seemingly insignificant remains can shed interesting light on the history of early man.

Up to now, historians have assumed that calendars came into being with the advent of agriculture, for then man was faced with a real need to understand something about the seasons. Recent scientific evidence seems to indicate that this assumption is incorrect. Historians have long been puzzled by dots, lines and symbols which have

[1] **Widley** is an area of the Greater Portsmouth conurbation in the south of England near Waterlooville and Purbrook. It is on the dip slope of the South Downs just north of the ridge called Portsdown Hill.

been engraved on walls, bones, and the ivory tusk of mammoths. The nomads who made these markings lived by hunting and fishing during the last Ice Age, which began about 35,000 B.C. and ended about 10,000 B.C. By correlating markings made in various parts of the world, historians have been able to read this difficult code. They have found that it is connected with the passage of days and the phases of the moon. It is, in fact, a primitive type of calendar. It has long been known that the hunting scenes depicted on walls were not simply
a form of artistic expression. They had a definite meaning, for they were as near as early man could get to writing. It is possible that there is a definite relation between these paintings and the markings that sometimes accompany them. It seems that man was making a real effort to understand the seasons 20,000 years earlier than has been supposed.

39 | Nothing to worry about

The rough road across the plain soon
became so bad that we tried to get Bruce
to drive back to the village we had come
from. Even though the road was littered
with boulders and pitted with holes,
Bruce was not in the least perturbed. Glancing at his map, he informed us that the next village was a mere twenty miles away. It was not that Bruce always underestimated difficulties. He simply had no sense of danger at all. No matter what the conditions were, he believed that a car should be driven as fast as it could possibly go.
As we bumped over the dusty track, we swerved to avoid large boulders. The wheels scooped up stones which hammered ominously under the car. We felt sure that sooner or later a stone would rip a hole in our petrol tank or damage the engine. Because of this, we kept looking back, wondering if we were leaving a trail of oil and petrol behind us. What a relief it was when the boulders suddenly disappeared, giving way to a stretch of plain where the only obstacles were clumps of bushes. But there was worse to come. Just ahead of us there was a huge fissure. In response to renewed pleadings, Bruce stopped. Though we all got out to examine the fissure, he remained in the car. We informed him that the fissure extended for fifty yards and was two feet wide and four feet deep. Even this had no effect. Bruce engaged low gear and drove at a terrifying speed, keeping the front wheels astride the crack as he followed its zig-zag course. Before we had time to worry about what might happen, we were back on the plain again. Bruce consulted the map once more and told us that the village was now only fifteen miles away. Our next obstacle was a shallow pool of water about half a mile across. Bruce charged at it, but in the middle, the car came to a grinding halt. A yellow light on the dash- board flashed angrily and Bruce cheerfully announced that there was no oil in the engine!

40 | Who's who

It has never been explained why university students seem to enjoy practical jokes more than anyone else. Students specialize in a particular type of practical joke: the hoax. Inviting the fire-brigade to put out a non-existent fire is a crude form of deception which no self-respecting student would ever indulge in, Students often create amusing situations which are funny to everyone except the victims.
When a student recently saw two workmen using a pneumatic drill outside his university, he immediately telephoned the police and informed them that two students dressed up as workmen were tearing up the road with a pneumatic drill. As soon as he had hung up, he went over to the workmen and told them that if a policeman ordered them to go away, they were not to take him seriously. He added that a student had dressed up as a policeman and was playing all sorts of silly jokes on people. Both the police and the workmen were grateful to the student for this piece of advance information. The student hid in an archway nearby where he could watch and hear every- thing that went on. Sure enough, a policeman arrived on the scene and politely asked the workmen to go away. When he received a very rude reply from one of the workmen, he threatened to remove them by force. The workmen told him to do as he pleased and the policeman telephoned for help. Shortly afterwards, four more policemen arrived and remonstrated with the workmen. As the men refused to stop working, the police attempted to seize the pneumatic drill. The workmen struggled fiercely and one of them lost his temper. He threatened to call the police. At this, the police pointed out ironically that this would hardly be necessary as the men were already under arrest. Pretending to speak seriously, one of the workmen asked if he might make a telephone call before being taken to the station. Permission was granted and a policeman accompanied him to a call-box. Only when he saw that the man was actually telephoning the police did he realize that they had all been the victims of a hoax.

41 | Illusions of pastoral peace

The quiet life of the country has never appealed to me. City born and city bred, I have always regarded the country as something you look at through a train window, or something you occasionally visit during the week-end. Most of my friends live in the city, yet they always go into raptures at the mere mention of the country. Though they extol the virtues of the peaceful life, only one of them has ever gone to live in the country and he was back in town within six months. Even he still lives under the illusion that country life is somehow superior to town life. He is forever talking about the friendly people, the clean atmosphere, the closeness to nature and the gentle pace of living. Nothing can be compared, he maintains, with the first cock crow, the twittering of birds at dawn, the sight of the rising sun glinting on the trees and pastures. This idyllic pastoral scene is only part of the picture. My friend fails to

mention the long and friendless winter evenings which are interrupted only by an occasional visit to the local cinema-virtually the only form of entertainment. He says nothing about the poor selection of goods in the shops, or about those unfortunate people who have to travel from the country to the city every day to get to work. Why people are prepared to tolerate a four hour journey each day for the dubious privilege of living in the country is beyond my ken. They could be saved so much misery and expense if they chose to live in the city where they rightly belong. If you can do without the few pastoral pleasures of the country, you will find the city can provide you with the best that life can offer. You never have to travel miles to see your friends. They invariably live nearby and are always available for an informal chat or an evening's entertainment. Some of my acquaintances in the country come up to town once or twice a year to visit the theatre as a special treat. For them this is a major operation which involves considerable planning. As the play draws to its close, they wonder whether they will ever catch that last train home. The city dweller never experiences anxieties of this sort. The latest exhibitions, films, or plays are only a short bus ride away. Shopping, too, is always a pleasure. There is so much variety that you never have to make do with second best. Country people run wild when they go shopping in the city and stagger home loaded with as many of the necessities of life as they can carry. Nor is the city without its moments of beauty. There is something comforting about the warm glow shed by advertisements on cold wet winter nights. Few things could be more impressive than the peace that descends on deserted city streets at week-ends when the thousands that travel to work every day are tucked away in their homes in the country. It has always been a mystery to me why city dwellers, who appreciate all these things, obstinately pretend that they would prefer to live in the country.

42 | Modern cavemem

Cave exploration, or potholing, as it has come to be known, is a relatively new sport. Perhaps it is the desire for solitude or the chance of making an unexpected discovery that lures men down to the depths of the earth. It is impossible to give a satisfactory explanation for a potholer's motives. For him, caves have the same peculiar fascination which highmountains have for the climber. They arouse instincts which can only be dimly understood.

Exploring really deep caves is not a task for the Sunday afternoon rambler. Such undertakings require the precise planning and foresight of military operations. It can take as long as eight days to rig up rope ladders and to establish supply bases before a descent can be made into a very deep cave. Precautions of this sort are necessary, for it is impossible to foretell the exact nature of the difficulties which will confront the potholer. The deepest known cave in the world is the Gouffre Berger near Grenoble. It extends to a depth of 3723 feet. This immense chasm has been formed by an underground stream which has tunnelled a course through a flaw in the rocks. The

entrance to the cave is on a plateau in the Dauphine Alps. As it is only six feet across, it is barely noticeable. The cave might never have been discovered had not the entrance been spotted by the distinguished French potholer, Berger. Since its discovery, it has become a sort of potholers' Everest. Though a number of descents have been made, much of it still remains to be explored. A team of potholers recently went down the Gouffre Berger. After entering the narrow gap on the plateau, they climbed down the steep sides of the cave until they came to a narrow corridor. They had to edge their way along this, sometimes wading across shallow streams, or swimming across deep pools. Suddenly they came to a waterfall which dropped into an underground lake at the bottom of the cave. They plunged into the lake, and after loading their gear on an inflatable rubber dinghy, let the current carry them to the other side. To protect themselves from the icy water, they had to wear special rubber suits. At the far end of the lake, they came to huge piles of rubble which had been washed up by the water. In this part of the cave, they could hear an insistent booming sound which they found was caused by a small water-spout shooting down into a pool from the roof of the cave. Squeezing through a cleft in the rocks, the potholers arrived at an enormous cavern, the size of a huge concert hall. After switching on powerful arc lights, they saw great stalagmites—some of them over forty feet high—rising up like tree-trunks to meet the stalactites suspended from the roof. Round about, piles of lime-stone glistened in all the colours of the rainbow. In the eerie silence of the cavern, the only sound that could be heard was made by water which dripped continuously from the high dome above them.

43 | Fully insured

Insurance companies are normally willing to insure anything. Insuring public or private property is a standard practice in most countries in the world. If, however, you were holding an open air garden party or a fete it would be equally possible to insure yourself in the event of bad weather. Needless to say, the bigger the risk an insurance company takes, the higher the premium you will have to pay.

It is not uncommon to hear that a shipping company has made a claim for the cost of salvaging a sunken ship. But the claim made by a local authority to recover the cost of salvaging a sunken pie dish must surely be unique. Admittedly it was an unusual pie dish, for it was eighteen feet long and six feet wide. It had been purchased by a local authority so that an enormous pie could be baked for an annual fair. The pie committee decided that the best way to transport the dish would be by canal, so they insured it for the trip. Shortly after it was launched, the pie committee went to a local inn to celebrate. At the same time, a number of teenagers climbed on to the dish and held a little party of their own. Modern dances proved to be more than the disk could bear, for during the party it capsized and sank in seven feet of water. The pie committee telephoned a local garage owner who arrived in a recovery truck to salvage the pie dish. Shivering in their wet clothes, the teenagers looked on while three men dived repeatedly into the water to locate the dish. They had little difficulty in finding

it, but hauling it out of the water proved to be a serious problem. The sides of the dish were so smooth that it was almost impossible to attach hawsers and chains to the rim without damaging it. Eventually chains were fixed to one end of the dish and a powerful winch was put into operation. The dish rose to the surface and was gently drawn towards the canal bank. For one agonizing moment, the dish was perched precariously on the bank of the canal, but it suddenly overbalanced and slid back into the water. The men were now obliged to try once more. This time they fixed heavy metal clamps to both sides of the dish so that they could fasten the chains. The dish now had to be lifted vertically because one edge was resting against the side of the canal. The winch was again put into operation and one of the men started up the truck. Several minutes later, the dish was successfully hauled above the surface of the water. Water streamed in torrents over its sides with such force that it set up a huge wave in the canal. There was danger that the wave would rebound off the other side of the bank and send the dish plunging into the water again. By working at tremendous speed, the men managed to get the dish on to dry land before the wave returned.

44 | Speed and comfort

People travelling long distances fre-
quently have to decide whether they
would prefer to go by land, sea, or air.
Hardly anyone can positively enjoy sitting
in a train for more than a few hours. Train compartments soon get cramped and stuffy. It is almost impossible to take your mind off the journey. Reading is only a partial solution, for the monotonous
rhythm of the wheels clicking on the rails soon lulls you to sleep. During the day, sleep comes in snatches. At night, when you really wish to go to sleep, you rarely manage to do so. If you are lucky enough to get a couchette, you spend half the night staring at the small blue light in the ceiling, or fumbling to find your passport when you cross a frontier. Inevitably you arrive at your destination almost exhausted. Long car journeys are even less pleasant, for it is quite impossible even to read. On motor-ways you can, at least, travel fairly safely at high speeds, but more often than not, the greater part of the journey is spent on narrow, bumpy roads which are crowded with traffic. By comparison, trips by sea offer a great variety of civilized com- forts. You can stretch your legs on the spacious decks, play games, swim, meet interesting people and enjoy good food—always assuming, of course, that the sea is calm. If it is not, and you are likely to get sea-sick, no form of transport could be worse. Even if you travel in ideal weather, sea journeys take a long time. Relatively few people are prepared to sacrifice up to a third of their holidays for the pleasure of travelling on a ship. Aeroplanes have the reputation of being dangerous and even hardened travellers are intimidated by them. They also have the grave disadvantage of being the most expensive form of transport. But nothing can match them for speed and comfort. Travelling at a height of 30,000 feet, far above the clouds, and at over 500 miles an hour is an exhilarating experience. You do not have to devise ways of taking your mind off the journey, for an

aeroplane gets you to your destination rapidly. For a few hours, you settle back in a deep armchair to enjoy the flight. The real escapist can watch a free film show and sip champagne on some services. But even when such refinements are not available, there is plenty to keep you occupied. An aeroplane offers you an unusual and breathtaking view of the world. You soar effortlessly over high mountains and deep valleys. You really see the shape of the land. If the landscape is hidden from view, you can enjoy the extraordinary sight of unbroken cloud plains that stretch out for miles before you, while the sun shines brilliantly in a clear sky. The journey is so smooth that there is nothing to prevent you from reading or sleeping. However you decide to spend your time, one thing is certain: you will arrive at your destination fresh and uncrumpled. You will not have to spend the next few days recovering from a long and arduous journey.

45 | The power of press

In democratic countries any efforts to restrict the freedom of the press are rightly condemned. However, this freedom can easily be abused. Stories about people often attract far more public attention than political events. Though we may enjoy reading about the lives of others, it is extremely doubtful whether we would equally enjoy reading about ourselves. Acting on the contention that facts are sacred, reporters can cause untold suffering to individuals by publishing details about their private lives. Newspapers exert such tremendous influence that they can not only bring about major changes to the lives of ordinary people but can even overthrow a government.

The story of a poor family that acquired fame and fortune overnight, dramatically illustrates the power of the press. The family lived in Aberdeen, a small town of 23,000 inhabitants in South Dakota. As the parents had five children, life was a perpetual struggle against poverty. They were expecting their sixth child and faced with even more pressing economic problems. If they had only had one more child, the fact would have passed unnoticed. They would have continued to struggle against economic odds and would have lived in obscurity. But they suddenly became the parents of quintuplets, four girls and a boy, an event which radically changed their lives. The day after the birth of the five children, an aeroplane arrived in Aberdeen bringing sixty reporters and photographers. The news was of national importance, for the poor couple had become the parents of the only quintuplets in America. The rise to fame was swift. Television cameras and newspapers carried the news to everyone in the country. Newspapers and magazines offered the family huge sums for the exclusive rights to publish stories and photographs. Gifts poured in not only from unknown people, but from baby food and soap manufacturers who wished to advertise their products. The old farmhouse the family lived in was to be replaced by a new $100,000 home. Reporters kept pressing for interviews so lawyers had to be employed to act as spokesmen for the family at press conferences. The event brought serious changes to the town itself. Plans were announced to build a huge new highway, as Aberdeen was

now likely to attract thousands of tourists. Signposts erected on the outskirts of the town directed tourists not to Aberdeen, but to 'Quint-City U.S.A.' The local authorities discussed the possibility of erecting a 'quint museum' to satisfy the curiosity of the public and to protect the family from inquisitive tourists. While the five babies were still quietly sleeping in oxygen tents in a hospital nursery, their parents were paying the price for fame. It would never again be possible for them to lead normal lives. They had become the victims of commercialization, for their names had acquired a market value. The town itself received so much attention that almost every one of the inhabitants was affected to a greater or less degree.

46 | Do it yourself

So great is our passion for doing things for ourselves, that we are becoming increasingIy less dependent on specialized labour. No one can plead ignorance of a subject any longer, for there are countless do-it-yourself publications. Armed with the right tools and materials, newly-weds gaily embark on the task of decorating their own homes. Men of all ages spend hours of their leisure time installing their own fireplaces, laying-out their own gardens; building garages and making furniture. Some really keen enthusiasts go so far as to build their own record players and radio transmitters. Shops cater for the do-it-yourself craze not only by running special advisory services for novices, but by offering consumers bits and pieces which they can assemble at home. Such things provide an excellent outlet for pent-up creative energy, but unfortunately not all of us are born handymen.

Wives tend to believe that their husbands are infinitely resourceful and versatile. Even husbands who can hardly drive a nail in straight are supposed to be born electricians, carpenters, plumbers and mechanics. When lights fuse, furniture gets rickety, pipes get clogged, or vacuum cleaners fail to operate, wives automatically assume that their husbands will somehow put things right. The worst thing about the do-it-yourself game is that sometimes husbands live under the delusion that they can do anything even when they have been repeatedly proved wrong. It is a question of pride as much as anything else. Last spring my wife suggested that I call in a man to look at our lawn-mower. It had broken down the previous summer, and though I promised to repair it, I had never got round to it. I would not hear of the suggestion and said that I would fix it myself. One Saturday afternoon, I hauled the machine into the garden and had a close look at it. As far as I could see, it only needed a minor adjustment: a turn of a screw here, a little tightening up there, a drop of oil and it would be as good as new. Inevitably the repair job was not quite so simple. The mower firmly refused to mow, so I decided to dismantle it. The garden was soon littered with chunks of metal which had once made up a lawn-mower. But I was extremely pleased with myself I had traced the cause of the trouble. One of the links in the chain that drives the wheels had snapped. After buying a new chain I was faced with the insurmountable task of putting the confusing jigsaw puzzle together again. I was not surprised to find that the

machine still refused to work after I had reassembled it, for the simple reason that I was left with several curiously shaped bits of metal which did not seem to fit anywhere. I gave up in despair. The weeks passed and the grass grew. When my wife nagged me to do something about it, I told her that either I would have to buy a new mower or let the grass grow. Needless to say our house is now surrounded by a jungle. Buried somewhere in deep grass there is a rusting lawn-mower which I have promised to repair one day.

47 | Through the earth's crust

Satellites orbiting round the earth have provided scientists with a vast amount of information about conditions in outer space. By comparison, relatively little is known about the internal structure of the earth. It has proved easier to go up than to go down. The deepest hole ever to be bored on land went down 25,340 feet—considerably less than the height of Mount Everest. Drilling a hole under the sea has proved to be even more difficult. The deepest hole bored under sea has been about 20,000 feet. Until recently, scientists have been unable to devise a drill which would be capable of cutting through hard rock at great depths.

This problem has now been solved. Scientists have developed a method which sounds surprisingly simple. A new drill which is being tested at Leona Valley Ranch in Texas is driven by a turbine engine which is propelled by liquid mud pumped into it from the surface. As the diamond tip of the drill revolves, it is lubricated by mud. Scientists have been amazed to find that it can cut through the hardest rock with great ease. The drill has been designed to bore through the earth to a depth of 35,000 feet. It will enable scientists to obtain samples of the mysterious layer which lies immediately below the earth's crust. This layer is known as the Mohorovicic Discontinuity, but is commonly referred to as 'the Moho'. Before it is possible to drill this deep hole, scientists will have to overcome a number of problems. Geological tests will be carried out to find the point at which the earth's crust is thinnest. The three possible sites which are being considered are all at sea: two in the Atlantic Ocean and one in the Pacific. Once they have determined on a site, they will have to erect a drilling vessel which will not be swept away by ocean currents. The vessel will consist of an immense platform which will rise to 70 feet above the water. It will be supported by six hollow columns which will descend to a depth of 60 feet below the ocean surface where they will be fixed to a huge float. A tall steel tower rising to a height of nearly 200 feet will rest on the platform. The drill will be stored in the tower and will have to be lowered through about 15,000 feet of water before operations can begin. Within the tower, there will be a laboratory, living accommodation and a helicopter landing station. Keeping the platform in position at sea will give rise to further problems. To do this, scientists will have to devise methods using radar and underwater television. If, during the operations the drill has to be withdrawn, it must be possible to re-insert it. Great care will therefore have to be taken to keep the platform steady and make it strong

enough to withstand hurricanes. If the project is successful, scientists will not only learn a great deal about the earth, but possibly about the nature of the universe itself.

48 | The silent village

In this much-travelled world, there are still thousands of places which are inaccessible to tourists. We always assume that villagers in remote places are friendly and hospitable. But people who are cut off not only from foreign tourists, but even from their own countrymen can be hostile to travellers. Visits to really remote villages are seldom enjoyable—as my wife and I discovered during a tourthrough the Balkans.

We had spent several days in a small town and visited a number of old churches in the vicinity. These attracted many visitors for they were not only of great architectural interest, but contained a large number of beautifully preserved frescoes as well. On the day before our departure, several bus loads of tourists descended on the town. This was more than we could bear, so we decided to spend our last day exploring the countryside. Taking a path which led out of the town, we crossed a few fields until we came to a dense wood. We expected the path to end abruptly, but we found that it traced its way through the trees. We tramped through the wood for over two hours until we arrived at a deep stream. We could see that the path continued on the other side, but we had no idea how we could get across the stream. Suddenly my wife spotted a boat moored to the bank. In it there was a boatman fast asleep. We gently woke him up and asked him to ferry us to the other side. Though he was reluctant to do so at first, we eventually persuaded him to take us. The path led to a tiny village perched on the steep sides of a mountain. The place consisted of a straggling unmade road which was lined on either side by small houses. Even under a clear blue sky, the village looked forbidding, as all the houses were built of grey mud bricks. The village seemed deserted, the only sign of life being an ugly-looking black goat tied to a tree on a short length of rope in a field nearby. Sitting down on a dilapidated wooden fence near the field, we opened a couple of tins of sardines and had a picnic lunch. All at once, I noticed that my wife seemed to be filled with alarm. Looking up I saw that we were surrounded by children in rags who were looking at us silently as we ate. We offered them food and spoke to them kindly, but they remained motionless. I concluded that they were simply shy of strangers. When we later walked down the main street of the village, we were followed by a silent procession of children. The village which had seemed deserted, immediately came to life. Faces appeared at windows. Men in shirt sleeves stood outside their houses and glared at us. Old women in black shawls peered at us from door-ways. The most frightening thing of all was that not a sound could be heard. There was no doubt that we were unwelcome visitors. We needed no further warning. Turning back down the main street, we quickened our pace and made our way rapidly towards the stream where we hoped the boatman was waiting.

49 | The ideal servant

It is a good thing my aunt Harriet died years ago. If she were alive today she would not be able to air her views on her favourite topic of conversation: domestic servants. Aunt Harriet lived in that leisurely age when servants were employed to do housework. She had a huge, rambling country house called 'The Gables'. She was sentimentally attached to this house, for even though it was far too big for her needs, she persisted in living there long after her husband's death. Before she grew old, aunt Harriet used to entertain lavishly. I often visited The Gables when I was a boy. No matter how many guests were present, the great house was always immaculate. The parquet floors shone like mirrors; highly polished silver was displayed in gleaming glass cabinets; even my uncle's huge collection of books was kept miraculously free from dust. Aunt Harriet presided over an invisible army of servants that continuously scrubbed, cleaned, and polished. She always referred to them as 'the shifting population', for they came and went with such frequency that I never even got a chance to learn their names, Though my aunt pursued what was, in those days, an enlightened policy in that she never allowed her domestic staff to work more than eight hours a day, she was extremely difficult to please. While she always decried the fickleness of human nature, she carried on an unrelenting search for the ideal servant to the end of her days, even after she had been sadly disillusioned by Bessie. Bessie worked for aunt Harriet for three years. During that time she so gained my aunt's confidence, that she was put in charge of the domestic staff.

Aunt Harriet could not find words to praise Bessie's industry and efficiency. In addition to all her other qualifications, Bessie was an expert cook. She acted the role of the perfect servant for three years before aunt Harriet discovered her 'little weakness'. After being absent from The Gables for a week, my aunt unexpectedly returned one afternoon with a party of guests and instructed Bessie to prepare dinner. Not only was the meal well below the usual standard, but Bereie seemed unable to walk steadily. She bumped into the furniture and kept mumbling about the guests. When she came in with the last course—a huge pudding-she tripped on the carpet and the pudding went flying through the air, narrowly missed my aunt, and crashed on the dining table with considerable force. Though this occasioned great mirth among the guests, aunt Harriet was horrified. She reluctantly came to the conclusion that Bessie was drunk. The guests had, of course, realized this from the moment Bessie opened the door for them and, long before the final catastrophe, had had a difficult time trying to conceal their amusement. The poor girl was dismissed instantly. After her departure, aunt Harriet discovered that there were piles of empty wine bottles of all shapes and sizes neatly stacked in what had once been Bessie's wardrobe. They had mysteriously found their way there from the wine-cellar!

50 | New Year resolutions

The New Year is a time for resolutions. Mentally, at least, most of us could com-

pile formidable lists of 'do's' and 'don'ts'.
The same old favourites recur year in
year out with monotonous regularity. We resolve to get up earlier each morning, eat less, find more time to play with the children, do a thousand and one jobs about the house, be nice to people we don't like, drive carefully, and take the dog for a walk every day. Past experience has taught us that certain accomplishments are beyond attainment. If we remain inveterate smokers, it is only because we have so often experienced the frustration that results from failure. Most of us fail in our efforts at self-improvement because our schemes are too ambitious and we never have time to carry them out. We also make the fundamental error of announcing our resolutions to everybody so that we look even more foolish when we slip back into our bad old ways. Aware of these pitfalls, this year I attempted to keep my resolutions to myself. I limited myself to two modest ambitions: to do physical exercises every morning and to read more of an evening. An all-night party on New Year's Eve, provided me with a good excuse for not carrying out either of these new resolutions on the first day of the year, but on the second, I applied myself assiduously to the task.
The daily exercises lasted only eleven minutes and I proposed to do them early in the morning before anyone had got up. The self-discipline required to drag myself out of bed eleven minutes earlier than usual was considerable.
Nevertheless, I managed to creep down into the living-room for two days before anyone found me out. After jumping about on the carpet and twisting the human frame into uncomfortable positions, I sat down at the breakfast table in an exhausted condition. It was this that betrayed me. The next morning the whole family trooped in to watch the performance. That was really unsettling but I fended off the taunts and jibes of the family good-humouredly and soon everybody got used to the idea.
However, my enthusiasm waned. The time I spent at exercises gradually diminished. Little by little the eleven minutes fell to zero. By January 10th, I was back to where I had started from. I argued that if I spent less time exhausting myself at exercises in the morning I would keep my mind fresh for reading when I got home from work.
Resisting the hypnotizing effect of television, I sat in my room for a few evenings with my eyes glued to a book, one night, however, feeling cold and lonely, I went downstairs and sat in front of the television pretending to read. That proved to be my undoing, for I soon got back to my old bad habit of dozing off in front of the screen. I still haven't given up my resolution to do more reading. In fact, I have just bought a book entitled 'How to Read a Thousand Words a Minute'. Perhaps it will solve my problem, but I just haven't had time to read it!

51 | Predicting the Future

One of the greatest advances in modern
technology has been the invention of
computers. They are already widely used
in industry and in universities and the

time may come when it will be possible for ordinary people to use them as well. Computers are capable of doing extremely complicated work in all branches of learning. They can solve the most complex mathematical problems or put thousands of unrelated facts in order. These machines can be put to varied uses.

For instance, they can provide information on the best way to prevent traffic accidents, or they can count the number of times the word 'and' has been used in the Bible. Because they work accurately and at high speeds, they save research workers years of hard work. This whole process by which machines can be used to work for us has been called automation. In the future, automation may enable human beings to enjoy far more leisure than they do today. The coming of automation is bound to have important social consequences. Some time ago an expert on automation, Sir Leon Bagrit, pointed out that it was a mistake to believe that these machines could 'think'. There is no possibility that human beings will be 'controlled by machines'. Though computers are capable of learning from their mistakes and improving on their performance they need detailed instructions from human beings in order to be able to operate. They can never, as it were, lead independent lives, or 'rule the world' by making decisions of their own. Sir Leon said that in the future, computers would be developed which would be small enough to carry in the pocket. Ordinary people would then be able to use them to obtain valuable information. Computers could be plugged into a national network and be used like radios. For instance, people going on holiday could be informed about weather conditions; car drivers could be given alternative routes when there are traffic jams. It will also be possible to make tiny translating machines. This will enable people who do not share a common language to talk to each other without any difficulty or to read foreign publications. It is impossible to assess the importance of a machine of this sort, for many international misunderstandings are caused simply through our failure to understand each other.

Computers will also be used in hospitals. By providing a machine with a patient's symptoms, a doctor will be able to diagnose the nature of his illness. Similarly, machines could be used to keep a check on a patient's health record and bring it up to date. Doctors will therefore have immediate access to a great many facts which will help them in their work.

Book-keepers and accountants, too, could be relieved of dull clerical work, for the tedious task of compiling and checking lists of figures could be done entirely by machines. Computers are the most efficient servants man has ever had and there is no limit to the way they can be used to improve our lives.

52 | Mud is mud

My cousin, Harry, keeps a large curiously shaped bottle on permanent display in his study. Despite the fact that the bottle is tinted a delicate shade of green, an observant visitor would soon notice that it is filled with what looks like a thick greyish substance. If you were to ask Harry what was in the bottle, he would tell you that it

contained perfumed mud. If you expressed doubt or surprise, he would immediately invite you to smell it and then to rub some into your skin. This brief experiment would dispel any further doubts you might entertain. The bottle really does contain perfumed mud. How Harry came into the possession of this outlandish stuff makes an interesting story which he is fond of relating. Furthermore, the acquisition of this bottle cured him of a bad habit he had been developing for years.

Harry used to consider it a great joke to go into expensive cosmetic shops and make outrageous requests for goods that do not exist. He would invent fanciful names on the spot. On entering a shop, he would ask for a new perfume called 'Scented Shadow' or for 'insoluble bath cubes'. If a shop girl told him she had not heard of it, he would pretend to be considerably put out. He loved to be told that one of his imaginary products was temporarily out of stock and he would faithfully promise to call again at some future date, but of course he never did. How Harry managed to keep a straight face during these performances is quite beyond me. Harry does not need to be prompted to explain how he bought his precious bottle of mud. One day, he went to an exclusive shop in London and asked for 'Myrolite'. The shop assistant looked puzzled and Harry repeated the word, slowly stressing each syllable. When the girl shook her head in bewilderment, Harry went on to explain that 'myrolite' was a hard, amber-like substance which could be used to remove freckles. This explanation evidently conveyed something to the girl who searched shelf after shelf. She produced all sorts of weird concoctions, but none of them met with Harry's requirements. When Harry put on his act of being mildly annoyed, the girl promised to order some for him. Intoxicated by his success, Harry then asked for perfumed mud. He expected the girl to look at him in blank astonishment. However, it was his turn to be surprised, for the girl's eyes immediately lit up and she 'fetched several botties which she placed on the counter for Harry to inspect. For once, Harry had to admit defeat. He picked up what seemed to be the smallest bottle and discreetly asked the price. He was glad to get away with a mere five guineas and he beat a hasty retreat, clutching the precious bottle under his arm. From then on, Harry decided that this little game he had invented might prove to be expensive. The curious bottle which now adorns the bookcase in his study was his first and last purchase of rare cosmetics.

53 | In the public interest

The Scandinavian countries are much admired all over the world for their enlightened social policies. Sweden has evolved an excellent system for protecting the individual citizen from high-handed or incompetent public officers. The system has worked so well, that it has been adopted in other countries like Denmark, Norway, Finland, and New Zealand. Even countries with large populations like Britain and the United States are seriously considering imitating the Swedes. The Swedes were the first to recognize that public officials like civil servants, collectors can make mistakes or act over-zealously in the belief that they are serving the public. As

long ago as 1809, the Swedish Parliament introduced a scheme to safeguard the interest of the individual. A parliamentary committee representing all political parties appoints a person who is suitably qualified to investigate private grievances against the State. The official title of the person is 'Justice ombudsman', but the Swedes commonly refer to him as the 'J.O.' or 'Ombudsman'. The Ombudsman is not subject to political pressure. He investigates complaints large and small that come to him from all levels of society. As complaints must be made in writing, the Ombudsman receives an average of 1200 letters a year. He has eight lawyer assistants to help him and he examines every single letter in detail. There is nothing secretive about the Ombudsman's work, for his correspondence is open to public inspection. If a citizen's complaint is justified, the Ombudsman will act on his behalf. The action he takes varies according to the nature of the complaint. He may gently reprimand an official or even suggest to parliament that a law be altered. The following case is a typical example of the Ombudsman's work.

A foreigner living in a Swedish village wrote to the Ombudsman complaining that he had been ill-treated by the police, simply because he was a foreigner. The Ombudsman immediately wrote to the Chief of Police in the district asking him to send a record of the case. There was nothing in the record to show that the foreigner's complaint was justified and the Chief of Police stoutly denied the accusation. It was impossible for the Ombudsman to take action, but when he received a similar complaint from another foreigner in the same village, he immediately sent one of his lawyers to investigate the matter. The lawyer ascertained that a policeman had indeed dealt roughly with foreigners on several occasions. The fact that the policeman was prejudiced against foreigners could not be recorded in he official files. It was only possible for the Ombudsman to find this out by sending one of his representatives to check the facts. The policeman in question was severely reprimanded and was informed that if any further complaints were lodged against him, he would be prosecuted. The Ombudsman's prompt action at once put an end to an unpleasant practice which might have gone unnoticed.

54 | Instinct or cleverness

We have been brought up to fear insects. We regard them as unnecessary creatures that do more harm than good. Man continually wages war on item, for they contaminate his food, carry diseases, or devour his crops. They sting or bite without provocation; they fly uninvited into our rooms on summer nights, or beat against our lighted windows. We live in dread not only of unpleasant insects like spiders or wasps, but of quite harmless ones like moths. Reading about them increases our understanding without dispelling our fears. Knowing that the industrious ant lives in a highly organized society does nothing to prevent us from being filled with revulsion when we find hordes of them crawling over a carefully prepared picnic lunch. No matter how much we like honey, or how much

we have read about the uncanny sense of direction which bees possess, we have a horror of being stung. Most of our fears are unreasonable, but they are impossible to erase. At the same time, however, insects are strangely fascinating. We enjoy reading about them, especially when we find that, like the praying mantis, they lead perfectly horrible lives. We enjoy staring at them entranced as they go about their business, unaware (we hope) of our presence. Who has not stood in awe at the sight of a spider pouncing on a fly, or a column of ants triumphantly bearing home an enormous dead beetle?

Last summer I spent days in the garden watching thousands of ants crawling up the trunk of my prize peach tree. The tree has grown against a warm wall on a sheltered side of the house. I am especially proud of it, not only because it has survived several severe winters, but because it occasionally produces luscious peaches. During the summer, I noticed that the leaves of the tree were beginning to wither. Clusters of tiny insects called aphides were to be found on the underside of the leaves. They were visited by a *loop* colony of ants which obtained a sort of honey from them. I immediately embarked on an experiment which, even though it failed to get rid of the ants, kept me fascinated for twenty-four hours. I bound the base of the tree with sticky tape, making it impossible for the ants to reach the aphides. The tape was so sticky that they did not dare to cross it. For a long time, I watched them scurrying around the base of the tree in bewilderment. I even went out at midnight with a torch and noted with satisfaction (and surprise) that the ants were still swarming around the sticky tape without being able to do anything about it. I got up early next morning hoping to find that the ants had given up in despair. Instead, I saw that they had discovered a new route. They were climbing up the wall of the house and then on to the leaves of the tree. I realized sadly that I had been completely defeated by their ingenuity. The ants had been quick to find an answer to my thoroughly unscientific methods!

55 | From the earth: Greetings

Radio astronomy has greatly increased
our understanding of the universe. Radio
telescopes have one big advantage over
conventional telescopes in that they can operate in all weather conditions and can pick up signals coming from very distant stars. These signals are produced by colliding stars or nuclear reactions in outer space. The most powerful signals that have been received have been emitted by what seem to be truly colossal stars which scientists have named 'quasars'.

A better understanding of these phenomena may completely alter our conception of the nature of the universe. The radio telescope at Jodrell Bank in England was for many years the largest in the world. A new telescope, over twice the size, was recently built at Sugar Grove in West Virginia. Astronomers no longer regard as fanciful the idea that they may one day pick up signals which have been sent by intelligent beings on other worlds. This possibility gives rise to interesting speculations. Highly advanced

civilizations may have existed on other planets long before intelligent forms of life evolved on the earth. Conversely, intelligent being which are just beginning to develop on remote worlds may be ready to pick up our signals in thousands of years' time, or when life on earth has become extinct. Such speculations no longer belong to the realm of science fiction, for astronomers are now exploring the chances of communicating with living creatures (if they exist) on distant planets. This undertaking which has been named Project Ozma was begun in 1960, but it may take a great many years before results are obtained.

Aware of the fact that it would be impossible to wait thousands or millions of years to receive an answer from a distant planet, scientists engaged in Project Ozma are concentrating their attention on stars which are relatively close. One of the most likely stars is Tau Ceti which is eleven light years away. If signals from the earth were received by intelligent creatures on a planet circling this star, we would have to wait twenty-two years for an answer. The Green Bank telescope in West Virginia has been specially designed to distinguish between random signals and signals which might be in code. Even if contact were eventually established, astronomers would not be able to rely on language to communicate with other beings. They would use mathematics as this is the only truly universal language. Numbers have the same value anywhere. For this reason, intelligent creatures in any part of the universe would be able to understand a simple arithmetical sequence. They would be able to reply to our signals using similar methods. The next step would be to try to develop means for sending television pictures. A single picture would tell us more than thousands of words. In an age when anything seems to be possible, it would be narrow-minded in the extreme to ridicule these attempts to find out if there is life in other parts of the universe.

56 | Our neighbour, the river

The river which forms the eastern boundary of our farm has always played an important part in our lives. Without it we could not make a living. There is only enough spring water to supply the needs of the house, so we have to pump from the river for farm use. We tell the river all our secrets. We know instinctively, just as beekeepers with their bees, that misfortune might overtake us if the important events of our lives were not related to it.

We have special river birthday parties in the summer. Sometimes we go upstream to a favourite backwater, sometimes we have our party at the boathouse, which a predecessor of ours at the farm built in the meadow hard by the deepest pool for swimming and diving. In a heat-wave we choose a midnight birthday party and that is the most exciting of all. We welcome the seasons by the riverside, crowning the youngest girl with flowers in the spring, holding a summer festival on Midsummer Eve, giving thanks for the harvest in the autumn, and throwing a holly wreath into the current in the winter.

After a long period of rain the river may overflow its banks. This is a rare occurrence as our climate seldom god to extremes. We are lucky in that only the lower fields, which make up a very small proportion of our farm, are affected by flooding, but other farms are less favourably sited, and flooding can sometimes spell disaster for their owners. One bad winter we watched the river creep up the lower meadows. All the cattle had been moved into stalls and we stood to lose little. We were, however, worried about our nearest neighbours, whose farm was low lying and who were newcomers to the district. As the floods had put the telephone out of order, we could not find out how they were managing. From an attic window we could get a sweeping view of the river where their land joined ours, and at the most critical juncture we took turns in watching that point. The first sign of disaster was a dead sheep floating down. Next came a horse, swimming bravely, but we were afraid that the strength of the current would prevent its landing anywhere before it became exhausted. Suddenly a raft appeared, looking rather like Noah's ark, carrying the whole family, a few hens, the dogs, a cat, and a bird in a cage. We realized that they must have become unduly frightened by the rising flood, for their house, which had sound foundations, would have stood stoutly even if it had been almost submerged. The men of our family waded down through our flooded meadows with boathooks, in the hope of being able to grapple a corner of the raft and pull it out of the current towards our bank. We still think it a miracle that they were able to do so.

57 | Back in the old country

I stopped to let the car cool off and to
study the map. I had expected to be near
my objective by now, but everything still
seemed alien to me. I was only five when
my father had taken me abroad, and that was eighteen years ago. When my mother had died after a tragic accident, he did not quickly recover from the shock and loneliness. Everything around him was full of her presence, continually reopening the wound. So he decided to emigrate. In the new country he became absorbed in making a new life for the two of us, so that he gradually ceased to grieve. He did not marry again and I was brought up without a woman's care; but I lacked for nothing, for he was both father and mother to me. He always meant to go back one day but not to stay. His roots and mine had become too firmly embedded in the new land. But he wanted to see the old folk again and to visit my mother's grave. He became mortally ill a few months before we had planned to go and, when he knew that he was dying, he made me promise to go on my own. I hired a car the day after landing and bought a comprehensive book of maps, which I found most helpful on the cross country journey, but which I did not think I should need on the last stage. It was not that I actually remembered anything at all. But my father had described over and over again what we should see at every milestone, after leaving the nearest town, so that I was positive I should recognize it as familiar territory. Well, I had been wrong, for I was now lost.

I looked at the map and then at the milometer. I had come ten miles since leaving the town, and at this point, according to my father, I should be looking at farms and cottages in a valley, with the spire of the church of our village showing in the far distance. I could see no valley, no farms, no cottages and no church spire—only a lake. I decided that I must have taken a wrong turning somewhere. So I drove back to the town and began to retrace the route, taking frequent glances at the map. I landed up at the same corner. The curious thing was that the lake was not marked on the map. I felt as if I had stumbled into a nightmare country, as you sometimes do in dreams. And, as in a nightmare, there was nobody in sight to help me. Fortunately for me, as I was wondering what to do next, there appeared on the horizon a man on horseback, riding in my direction. I waited till he came near, then I asked him the way to our old village. He said that there was now no village. I thought he must have misunderstood me. so I repeated its name. This time he pointed to the lake. The village no longer existed because it had been submerged, and all the valley too. The lake was not a natural one, but a man made reservoir.

58 | A spot of bother

The old lady was glad to be back at the block of flats where she lived. Her shopping had tired her and her basket had grown heavier with every step of the way home. In the lift her thoughts were on lunch and a good rest; but when she got out at her own floor, both were forgotten in her sudden discovery that her front door was open. She was thinking that she must reprimand her daily maid the next morning for such a monstrous piece of negligence, when she remembered that she had gone shopping after the maid had left and she knew that she had turned both keys in their locks. She walked slowly into the hall and at once noticed that all the room doors were open, yet following her regular practice she had shut them before going out. Looking into the drawing room, she saw a scene of confusion over by her writing desk. It was as clear as daylight then that burglars had forced an entry during her absence. Her first impulse was to go round all the rooms looking for the thieves, but then she decided that at her age it might be more prudent to have someone with her, so she went to fetch the porter from his basement. By this time her legs were beginning to tremble, so she sat down and accepted a cup of very strong tea, while he telephoned the police. Then, her composure regained, she was ready to set off with the porter's assistance to search for any intruders who might still be lurking in her flat.

They went through the rooms, being careful to touch nothing, as they did not want to hinder the police in their search for fingerprints. The chaos was inconceivable. She had lived in the flat for thirty years and was a veritable magpie at hoarding; and it seemed as though everything she possessed had been tossed out and turned over and over. At least sorting out the things she should have discarded years ago was now being made easier for her. Then a police inspector arrived with a constable and she told them of her discovery of the ransacked flat. The inspector began to look for fingerprints, while the constable checked that the front door locks had not been forced, thereby proving that the burglars had either used skeleton keys or entered over the balcony. There was

no trace of fingerprints, but the inspector found a dirty red bundle that contained jewellery which the old lady said was not hers. So their entry into this flat was apparently not the burglars' first job that day and they must have been disturbed. The inspector then asked the old lady to try to check what was missing by the next day and advised her not to stay alone in the flat for a few nights. The old lady thought he was a fussy creature, but since the porter agreed with him, she rang up her daughter and asked for her help in what she described as a little spot of bother.

59 | Collecting

People tend to amass possessions, sometimes without being aware of doing so.
Indeed they can have a delightful surprise
when they find something useful which
they did not know they owned. Those who never have to change house become indiscriminate collectors of what can only be described as clutter. They leave unwanted objects in drawers, cupboards and attics for years, in the belief that they may one day need just those very things. As they grow old, people also accumulate belongings for two other reasons, lack of physical and mental energy, both of which are essential in turning out and throwing away, and sentiment. Things owned for a long time are full of associations with the past, perhaps with relatives who are dead, and so they gradually acquire a value beyond their true worth. Some things are collected deliberately in the home in an attempt to avoid waste. Among these I would list string and brown paper, kept by thrifty people when a parcel has been opened, to save buying these two requisites. Collecting small items can easily become a mania. I know someone who always cuts out from newspapers sketches of model clothes that she would like to buy, if she had the money. As she is not rich, the chances that she will ever be able to afford such purchases are remote; but she is never sufficiently *strong-minded* to be able to stop the practice. It is a harmless habit, but it litters up her desk to such an extent that every time she opens it, loose bits of paper fall out in every direction.

Collecting as a serious hobby is quite different and has many advantages. It provides relaxation for leisure hours, as just looking at one's treasures is always a joy. One does not have to go outside for amusement, since the collection is housed at home. Whatever it consists of stamps, records, first editions of books, china, glass, antique furniture, pictures, model cars, stuffed birds, toy animals, there is always something to do in connection with it, from finding the right place for the latest addition to verifying facts in reference books. This hobby educates one not only in the chosen subject, but also in general matters which have some bearing on it. There are also other benefits. One wants to meet like-minded collectors, to get advice, to compare notes, to exchange articles, to show off the latest find. So one's circle of friends grows. Soon the hobby leads to travel, perhaps to a meeting in another town, possibly a trip abroad in search of a rare specimen, for collectors are not confined to any one country. Over the years one may well become an authority on one's hobby and will very probably be

asked to give informal talks to little gatherings and then, if successful, to larger audiences. In this way self-confidence grows, first from mastering a subject, then from being able to talk about it. Collecting, by occupying spare time so constructively, makes a person contented, with no time for boredom.

60 | Punctuality

Punctuality is a necessary habit in all public affairs of a civilized society. Without it, nothing could ever be brought to a conclusion; everything would be in a state of chaos. Only in a sparsely populated rural community is it possible to disregard it. In ordinary living there can be some tolerance of unpunctuality. The intellectual, who is working on some abstruse problem, has everything coordinated and organized for the matter in hand. He is therefore forgiven, if late for a dinner party. But people are often reproached for unpunctuality when their only fault is cutting things fine. It is hard for energetic, quick-minded people to waste time, so they are often tempted to finish a job before setting out to keep an appointment. If no accidents occur on the way, like punctured tyres, diversions of traffic, sudden descent of fog, they will be on time. They are often more industrious, useful citizens than those who are never late. The over-punctual can be as much a trial to others as the unpunctual. The guest who arrives half an hour too soon is the greatest nuisance. Some friends of my family had this irritating habit. The only thing to do was ask them to come half an hour later than the other guests. Then they arrived just when we wanted them. If you are catching a train, it is always better to be comfortably early than even a fraction of a minute too late. Although being early may mean wasting a little time, this will be less than if you miss the train and have to wait an hour or more for the next one; and you avoid the frustration of arriving at the very moment when the train is drawing out of the station and being unable to get on it. An even harder situation is to be on the platform in good time for a train and still to see it go off without you. Such an experience befell a certain young girl the first time she was travelling alone.

She entered the station twenty minutes before the train was due, since her parents had impressed upon her that it would be unforgivable to miss it and cause the friends with whom she was going to stay to make two journeys to meet her. She gave her luggage to a porter and showed him her ticket. To her horror he said that she was two hours too soon. She felt in her handbag for the piece of paper on which her father had written down all the details of the journey and give it to the porter. He agreed that a train did come into the station at the time on the paper and that it did stop, but only to take on water, not passengers. The girl asked to see a timetable, feeling sure that her father could not have made such a mistake. The porter went to fetch one and arrived back with the stationmaster, who produced it with a flourish and pointed out a microscopic 'o' beside the time of the arrival of the train at his station; this little 'o' indicated that the train only stopped for water. Just as that moment the train came into the station. The girl, tears streaming down her face, begged to be allowed to slip into the guard's

van. But the stationmaster was adamant: rules could not be broken. And she had to watch that train disappear towards her destination while she was left behind.

2000 年外研社新版增加篇目

Lesson 7 | Mutilated ladies*

Has it ever happened to you? Have you ever put your trousers in the washing machine and then remembered there was a large bank note in your back pocket? When you rescued your trousers, did note in your back pocket? When you rescued your trousers, did you find the note was whiter than white? People who live in Britain needn't despair when they made mistakes like this (and a lot of people do)! Fortunately for them, the Bank of England has a team called Mutilated Ladies which deals with claims from people who fed their money to a machine or to their dog. Dogs, it seems, love to chew up money!

A recent case concerns Jane Butlin whose fiancé, John, runs a successful furniture business. John had very good day and put his wallet containing £3,000 into the microwave oven for safekeeping. Then he and Jane went horse-riding. When they got home, Jane cooked their dinner in the microwave oven and without realizing it, cooked her fiancé's wallet as well. Imagine their dismay when they found a beautifully-cooked wallet and notes turned to ash! John went to see his bank manager who sent the remains of wallet and the money to the special department of the Bank of England in Newcastle: the Mutilate Ladies! They examined the remain and John got all his money back. 'So long as there's something to identify, we will give people their money back,' said a spokeswoman for the Bank. 'Last year, we paid £1.5m on 21,000 claims.'

* Damaged bank notes. The Queen's head appears on English bank notes, and 'lady' refers to this.

Lesson 9 | Flying Cats

Cats never fail to fascinate human beings. They can be friendly and affectionate towards humans, but they lead mysterious lives of their own as well. They never become submissive like dogs and horses. As a result, humans have learned to respect feline independence. Most cats remain suspicious of humans all their lives. One of the things that fascinates us most about cats is the popular belief that they have nine lives. Apparently, there is a good deal of truth in this idea. A cat's ability to survive falls is based on fact.

Recently the New York Animal Medical Centre made a study of 132 cats over a period of five months. All these cats had one experience in common: they had fallen off high buildings, yet only eight of them died from shock of injuries. Of course, New York is the ideal place for such an interesting study, because there is no shortage of tall buildings. There are plenty of high-rise windowsills to fall from! One cat, Sabrina, fell 32 stories, yet only suffered from a broken tooth. 'Cats behave like well-trained paratroopers, 'a doctor said. It seems that the further cats fall, the less they are likely to injure themselves. In a long drop, they reach speeds of 60 miles an hour and more. At

high speeds, falling cats have time to relax. They stretch out their legs like flying squirrels. This increases their air-resistance and reduces the shock of impact when they hit the ground.

—FINIS—

—NEW CONCEPT ENGLISH—

BOOK IV

新概念英语 第四册课文

1967 年朗文版与 2000 年外研版 注释精校和合本

An Integrated English Course

By Louis Gorge Alexander

Longman, 1967

外语教学与研究出版社, 2000

1

We can read of things that happened 5,000 years ago in the Near East, where people first learned to write. But there are some parts of the world where even now people cannot write. The only way that they can preserve their history is to recount it as sagas—legends handed down from one generation of story-tellers to another. These legends are useful because they can tell us something about migrations of people who lived long ago, but none could write down what they did. Anthropologists wondered where the remote ancestors of the Polynesian* peoples now living in the Pacific Islands came from. The sagas of these people explain that some of them came from Indonesia about 2,000 years ago.

But the first people who were like ourselves lived so long ago that even their sagas, if they had any, are forgotten. So archaeologists have neither history nor legends to help them to find out where the first 'modern men' came from.

Fortunately, however, ancient men made tools of stone, especially flint, because this is easier to shape than other kinds. They may also have used wood and skins, but these have rotted away. Stone does not decay, and so the tools of long ago have remained when even the bones of the men who made them have disappeared without trace.

ROBIN PLACE *Finding Fossil Man*

2

* **Polynesia** (from Greek: πολύς many, νῆσος island) is a subregion of Oceania, comprising a large grouping of over 1,000 islands scattered over the central and southern Pacific Ocean.

Why, you may wonder, should spiders be our friends? Because they destroy so many insects, and insects include some of the greatest enemies of the human race. Insects would make it impossible for us to live in the world; they would devour all our crops and kill our flocks and herds, if it were not for the protection we get from insect-eating animals. We owe a lot to the birds and beasts who eat insects but all of them put together kill only a fraction of the number destroyed by spiders. Moreover, unlike some of the other insect eaters, spiders never do the least harm to us or our belongings.

Spiders are not insects, as many people think, nor even nearly related to them. One can tell the difference almost at a glance for a spider always has eight legs and an insect never more than six.

How many spiders are engaged in this work on our behalf? One authority on spiders made a census of the spiders in a grass field in the south of England, and he estimated that there were more than 2,250,000 in one acre; that is something like 6,000,000 spiders of different kinds on a football pitch. Spiders are busy for at least half the year in killing insects. It is impossible to make more than the wildest guess at how many they kill, but they are hungry creatures, not content with only three meals a day. It has been estimated that the weight of all the insects destroyed by spiders in Britain in one year would be greater than the total weight of all the human beings in the country.

T.H. GILLESPIE[*] *Spare That Spider* from *The Listener*[†]

3

Modern alpinists try to climb mountains by a route which will give them good sport, and the more difficult it is, the more highly it is regarded. In the pioneering days, however, this was not the case at all. The early climbers were looking for the easiest way to the top because the summit was the prize they sought, especially if it had never been attained before. It is true that during their explorations they often faced difficulties and dangers of the most perilous nature, equipped in a manner which would make a modern climber shudder at the thought, but they did not go out of their way to court such excitement. They had a single aim, a solitary goal—the top!

It is hard for us to realize nowadays how difficult it was for the pioneers. Except for one or two places such as Zermatt and Chamonix, which had rapidly become popular, Alpine villages tended to be impoverished settlements cut off from civilization by the high mountains. Such inns as there were were generally dirty and flea-ridden; the food simply local cheese accompanied by bread often twelve months old, all washed down with coarse wine. Often a valley boasted no inn at all, and climbers found shelter wherever they could—sometimes with the local priest (who was usually as poor as his parishioners), sometimes with shepherds or cheesemakers. Invariably the background was the same: dirt and poverty, and very uncomfortable. For men accustomed to eating seven-course dinners and sleeping between fine linen sheets at home, the change to the Alps must have been very hard indeed.

WALTER UNSWORTH *Matterhorn Man*

4

[*] **Thomas Hailing Gillespie** was the founder of the Royal Zoological Society of Scotland and the Edinburgh Zoo.

[†] The **Listener** was a weekly magazine established by the BBC under Lord Reith in January 1929. It ceased publication in 1991.

In the Soviet Union several cases have been reported recently of people who can read and detect colours with their fingers, and even see through solid doors and walls. One case concerns an eleven-year-old schoolgirl, Vera Petrova, who has normal vision but who can also perceive things with different parts of her skin, and through solid walls. This ability was first noticed by her father. One day she came into his office and happened to put her hands on the door of a locked safe. Suddenly she asked her father why he kept so many old newspapers locked away there, and even described the way they were done up in bundles.

Vera's curious talent was brought to the notice of a scientific research institute in the town of UIyanovsk*, near where she lives, and in April she was given a series of tests by a special commission of the Ministry of Health of the Russian Federal Republic. During these tests she was able to read a newspaper through an opaque screen and, stranger still, by moving her elbow over a child's game of Lotto she was able to describe the figures and colours printed on it; and, in another instance, wearing stockings and slippers, to make out with her foot the outlines and colours of a picture hidden under a carpet. Other experiments showed that her knees and shoulders had a similar sensitivity. During all these tests Vera was blindfold; and, indeed, except when blindfold she lacked the ability to perceive things with her skin. It was also found that although she could perceive things with her fingers this ability ceased the moment her hands were wet.

ERIC DE MAUNY† *Seeing Hands* from *The Listener*

5

The gorilla is something of a paradox in the African scene. One thinks one knows him very well. For a hundred years or more he has been killed, captured, and imprisoned in zoos. His bones have been mounted in natural history museums everywhere, and he has always exerted a strong fascination upon scientists and romantics alike. He is the stereotyped monster of the horror films and the adventure books, and an obvious (though not perhaps strictly scientific) link with our ancestral past.

Yet the fact is we know very little about gorillas. No really satisfactory photograph has ever been taken of one in a wild state, no zoologist, however intrepid, has been able to keep the animal under close and constant observation in the dark jungles in which he lives. Carl Akeley‡, the American naturalist, led two expeditions in the nineteen-twenties, and now lies buried among the animals he loved so well. But even he was unable to discover how long the gorilla lives, or how or why it dies, nor was he able to define the exact social pattern of the family groups, or indicate the final extent of their intelligence. All this and many other things remain almost as much a mystery as they were when the French explorer Du Chaillu§ first described the animal to the civilized

* **Ulyanovsk**—(Russian: Ульяновск), formerly Simbirsk (Симби́рск), is a city on the Volga River in Russia, 893 km east from Moscow. It is the administrative center of Ulyanovsk Oblast, and the birthplace of Vladimir Lenin.

† **Erik de Mauny**—BBC Radio's correspondent in a number of countries but was best known for his reporting from Moscow.

‡ **Carl Ethan Akeley—**American naturalist and explorer who developed the taxidermic method for mounting museum displays to show animals in their natural surroundings. His method of applying skin on a finely molded replica of the body of the animal gave results of unprecedented realism and elevated taxidermy from a craft…

§ **Paul Belloni du Chaillu** (July 31, 1835 – April 29, 1903) was a French-American traveler and anthropologist. He became famous in the 1860s as the first modern outsider to confirm the existence of gorillas and the Pygmy people of central Africa. He later researched the prehistory of Scandinavia.

world a century ago. The Abominable Snowman* who haunts the imagination of climbers in the Himalayas is hardly more elusive.

ALAN MOOREHEAD *No Room in the Ark*

6

People are always talking about 'the problem of youth'. If there is one—which I take leave to doubt—then it is older people who create it, not the young themselves. Let us get down to fundamentals and agree that the young are after all human beings—people just like their elders. There is only one difference between an old man and a young one: the young man has a glorious future before him and the old one has a splendid future behind him: and maybe that is where the rub is.

When I was a teenager, I felt that I was just young and uncertain—that I was a new boy in a huge school, and I would have been very pleased to be regarded as something so interesting as a problem. For one thing, being a problem gives you a certain identity, and that is one of the things the young are busily engaged in seeking.

I find young people exciting. They have an air of freedom, and they have not a dreary commitment to mean ambitions or love of comfort. They are not anxious social climbers, and they have no devotion to material things. All this seems to me to link them with life, and the origins of things. It's as if they were in some sense cosmic beings in violent and lovely contrast with us suburban creatures.

All that is in my mind when I meet a young person. He may be conceited, illmannered, presumptuous or fatuous, but I do not turn for protection to dreary clichés about respect for elders—as if mere age were a reason for respect. I accept that we are equals, and I will argue with him, as an equal, if I think he is wrong.

FIELDEN HUGHES [from] *Out of the Air, The Listener*

7

I am always amazed when I hear people saying that sport creates goodwill between the nations, and that if only the common peoples of the world could meet one another at football or cricket, they would have no inclination to meet on the battlefield. Even if one didn't know from concrete examples (the 1936 Olympic Games†, for instance) that international sporting contests lead to orgies of hatred, one could deduce it from general principles.

Nearly all the sports practised nowadays are competitive. You play to win, and the game has little meaning unless you do your utmost to win. On the village green, where you pick up sides and no feeling of local patriotism is involved, it is possible to play simply for the fun and exercise; but as soon as the question of prestige arises, as soon as you feel that you and some larger unit will be disgraced if you lose, the most savage combative instincts are aroused. Anyone who has played even in a school football

* The Yeti or **Abominable Snowman** is an apelike animal cryptid said to inhabit the Himalaya region of Nepal and Tibet. Although the scientific community largely dismisses the Yeti as a fraud supported by legend and weak evidence, it remains one of the most famous creatures of cryptozoology; the study of unconfirmed animals. The Yeti can be considered a Himalayan parallel to the Sasquatch or man-beast.

† **The 1936 Berlin Olympic Games** had been handed to Berlin before the Nazis came to power but now it was the perfect opportunity for Hitler to demonstrate to the world, how efficient the Nazi Germany was. It was also the perfect opportunity for the Nazis to prove to the world the reality of the Master Race. The Berlin Olympic Games gave the Nazis an opportunity to show off to the world as 49 countries were competing bringing with them their assorted media. For Propaganda Minister Joseph Goebbels, it was the perfect scenario.

match knows this. At the international level sport is frankly mimic warfare. But the significant thing is not the behaviour of the players but the attitude of the spectators; and, behind the spectators, of the nations who work themselves into furies over these absurd contests, and seriously believe—at any rate for short periods—that running, jumping and kicking a ball are tests of national virtue.

GEORGE ORWELL *The Sporting Spirit*

8

Parents have to do much less for their children today than they used to do, and home has become much less of a workshop. Clothes can be bought ready made, washing can go to the laundry, food can be bought cooked, canned or preserved, bread is baked and delivered by the baker, milk arrives on the doorstep, meals can be had at the restaurant, the works' canteen, and the school dining-room.

It is unusual now for father to pursue his trade or other employment at home, and his children rarely, if ever, see him at his place of work. Boys are therefore seldom trained to follow their father's occupation, and in many towns they have a fairly wide choice of employment and so do girls. The young wage-earner often earns good money, and soon acquires a feeling of economic independence. In textile areas it has long been customary for mothers to go out to work, but this practice has become so widespread that the working mother is now a not unusual factor in a child's home life, the number of married women in employment having more than doubled in the last twenty-five years. With mother earning and his older children drawing substantial wages father is seldom the dominant figure that he still was at the beginning of the century. When mother works economic advantages accrue, but children lose something of great value if mother's employment prevents her from being home to greet them when they return from school.

W.O. LESTER SMITH *Education*

9

Not all sounds made by animals serve as language, and we have only to turn to that extraordinary discovery of echo-location in bats to see a case in which the voice plays a strictly utilitarian rôle.

To get a full appreciation of what this means we must turn first to some recent human inventions. Everyone knows that if he shouts in the vicinity of a wall or a mountainside, an echo will come back. The further off this solid obstruction the longer time will elapse for the return of the echo. A sound made by tapping on the hull of a ship will be reflected from the sea bottom, and by measuring the time interval between the taps and the receipt of the echoes the depth of the sea at that point can be calculated. So was born the echo-sounding apparatus, now in general use in ships. Every solid object will reflect a sound, varying according to the size and nature of the object. A shoal of fish will do this. So it is a comparatively simple step from locating the sea bottom to locating a shoal of fish. With experience, and with improved apparatus, it is now possible not only to locate a shoal but to tell if it is herring, cod, or other well-known fish, by the pattern of its echo.

A few years ago it was found that certain bats emit squeaks and by receiving the echoes they could locate and steer clear of obstacles—or locate flying insects on which they feed. This echo-location in bats is often compared with radar, the principle of which is similar.

MAURICE BURTON *Curiosities of Animal Life*

10

In our new society there is a growing dislike of original, creative men. The manipulated do not understand them; the manipulators fear them. The tidy committee men regard them with horror, knowing that no pigeonholes can be found for them. We could do with a few original, creative men in our political life—if only to create some enthusiasm, release some energy—but where are they? We are asked to choose between various shades of the negative. The engine is falling to pieces while the joint owners of the car argue whether the footbrake or the handbrake should be applied. Notice how the cold, colourless men, without ideas and with no other passion but a craving for success, get on in this society, capturing one plum after another and taking the juice and taste out of them. Sometimes you might think the machines we worship make all the chief appointments, promoting the human beings who seem closest to them. Between midnight and dawn, when sleep will not come and all the old wounds begin to ache, I often have a nightmare vision of a future world in which there are billions of people, all numbered and registered, with not a gleam of genius anywhere, not an original mind, a rich personality, on the whole packed globe. The twin ideals of our time, organization and quantity, will have won for ever.

J.B. PRIESTLEY *Thoughts in the Wilderness*

11

Alfred the Great* acted as his own spy, visiting Danish camps disguised as a minstrel. In those days wandering minstrels were welcome everywhere. They were not fighting men, and their harp was their passport. Alfred had learned many of their ballads in his youth, and could vary his programme with acrobatic tricks and simple conjuring.

While Alfred's little army slowly began to gather at Athelney†, the king himself set out to penetrate the camp of Guthrum‡, the commander of the Danish invaders. These had settled down for the winter at Chippenham§: thither Alfred went. He noticed at once that discipline was slack: the Danes had the self-confidence of conquerors, and their security precautions were casual. They lived well, on the

* **Alfred the Great**—(also Ælfred from the Old English Ælfrēd) (c. 849 – 26 October 899) king of the southern Anglo-Saxon kingdom of Wessex from 871 to 899. Alfred is noted for his defence of the kingdom against the Danish Vikings, becoming the only English King to be awarded the epithet "the Great".

† **Athelney**—located between the villages of Burrowbridge and East Lyng in the Sedgemoor district of Somerset, England. The area is known as the Isle of Athelney, because it was once a very low isolated island in the 'very great swampy and impassable marshes' of the Somerset Levels. Much of the Levels are below sea level. They are now drained for agricultural use during the summer, but are regularly flooded in the winter.

‡ **Guthrum** (died c. 890), christened Æthelstan, was king of the Danish Vikings in the Danelaw. He is mainly known for his conflict with Alfred the Great.

§ **Chippenham** is set on a prominent crossing of the River Avon and lies between the Malborough Downs to the East, the Cotswolds to the North and West and Salisbury Plain to the South. Surrounding the town are a number of stone-built villages, including Lacock (National Trust), Biddestone and Castle Combe. The great house and art treasures of Longleat, Bowood, Lacock Abbey, Sheldon Manor and Corsham Court are within easy reach. Chippenham is one of the West Country's most dynamic market towns with a population of over 40,000.

proceeds of raids on neighbouring regions. There they collected women as well as food and drink, and a life of ease had made them soft.

Alfred stayed in the camp a week before he returned to Athelney. The force there assembled was trivial compared with the Danish horde. But Alfred had deduced that the Danes were no longer fit for prolonged battle; and that their commissariat had no organization, but depended on irregular raids.

So, faced with the Danish advance, Alfred did not risk open battle but harried the enemy. He was constantly on the move, drawing the Danes after him. His patrols halted the raiding parties: hunger assailed the Danish army. Now Alfred began a long series of skirmishes—and within a month the Danes had surrendered. The episode could reasonably serve as a unique epic of royal espionage!

BERNARD NEWMAN *Spies of Britain*

12

What characterizes almost all Hollywood pictures is their inner emptiness. This is compensated for by an outer impressiveness. Such impressiveness usually takes the form of truly grandiose realism. Nothing is spared to make the setting, the costumes, all of the surface details correct. These efforts help to mask the essential emptiness of the characterization, and the absurdities and trivialities of the plots. The houses look like houses, the streets look like streets; the people look and talk like people; but they are empty of humanity, credibility, and motivation. Needless to say, the disgraceful censorship code is an important factor in predetermining the content of these pictures. But the code does not disturb the profits, nor the entertainment value of the films; it merely helps to prevent them from being credible. It isn't too heavy a burden for the industry to bear. In addition to the impressiveness of the settings, there is a use of the camera, which at times seems magical. But of what human import is all this skill, all this effort, all this energy in the production of effects, when the story, the representation of life is hollow, stupid, banal, childish?

JAMES T. FARRELL *The Language of Hollywood*

13

Oxford has been ruined by the motor industry. The peace which Oxford once knew, and which a great university city should always have, has been swept ruthlessly away; and no benefactions and research endowments can make up for the change in character which the city has suffered. At six in the morning the old courts shake to the roar of buses taking the next shift to Cowley and Pressed Steel; great lorries with a double deck cargo of cars for export lumber past Magdalen and the University Church. Loads of motor-engines are hurried hither and thither and the streets are thronged with a population which has no interest in learning and knows no studies beyond servo-systems and distributors, compression ratios and camshafts.

Theoretically the marriage of an old seat of learning and tradition with a new and wealthy industry might be expected to produce some interesting children. It might have been thought that the culture of the university would radiate out and transform the lives of the workers. That this has not happened may be the fault of the university, for at both Oxford and Cambridge the colleges tend to live in an era which is certainly

not of the twentieth century, and upon a planet which bears little resemblance to the war-torn Earth. Wherever the fault may lie the fact remains that it is the theatre at Oxford and not at Cambridge which is on the verge of extinction, and the only fruit of the combination of industry and the rarefied atmosphere of learning is the dust in the streets, and a pathetic sense of being lost which hangs over some of the colleges.

ROGER PILKINGTON *Thames Waters*

14

Some old people are oppressed by the fear of death. In the young there is a justification for this feeling. Young men who have reason to fear that they will be killed in battle may justifiably feel bitter in the thought that they have been cheated of the best things that life has to offer. But in an old man who has known human joys and sorrows, and has achieved whatever work it was in him to do, the fear of death is somewhat abject and ignoble. The best way to overcome it— so at least it seems to me—is to make your interests gradually wider and more impersonal, until bit by bit the walls of the ego recede, and your life becomes increasingly merged in the universal life. An individual human existence should be like a river—small at first, narrowly contained within its banks, and rushing passionately past boulders and over waterfalls. Gradually the river grows wider, the banks recede, the waters flow more quietly, and in the end, without any visible break, they become merged in the sea, and painlessly lose their individual being. The man who, in old age, can see his life in this way, will not suffer from the fear of death, since the things he cares for will continue. And if, with the decay of vitality, weariness increases, the thought of rest will be not unwelcome. I should wish to die while still at work, knowing that others will carry on what I can no longer do, and content in the thought that what was possible has been done.

BERTRAND RUSSELL *How to Grow Old* from *Portraits from Memory*

15

When anyone opens a current account at a bank, he is lending the bank money, repayment of which he may demand at any time, either in cash or by drawing a cheque in favour of another person. Primarily, the banker-customer relationship is that of debtor and creditor—who is which depending on whether the customer's account is in credit or is overdrawn. But, in addition to that basically simple concept, the bank and its customer owe a large number of obligations to one another. Many of these obligations can give rise to problems and complications but a bank customer, unlike, say, a buyer of goods, cannot complain that the law is loaded against him.

The bank must obey its customer's instructions, and not those of anyone else. When, for example, a customer first opens an account, he instructs the bank to debit his account only in respect of cheques drawn by himself. He gives the bank specimens of his signature, and there is a very firm rule that the bank has no right or authority to pay out a customer's money on a cheque on which its customer's signature has been forged. It makes no difference that the forgery may have been a very skilful one; the bank must recognize its customer's signature. For this reason there is no risk to the customer in the modern practice, adopted by some banks, of printing the customer's

name on his cheques. If this facilitates forgery it is the bank which will lose, not the customer.

GORDON BARRIE and AUBREY L. DIAMOND
The Consumer Society and the Law

16

The deepest holes of all are made for oil, and they go down to as much as 25,000 feet. But we do not need to send men down to get the oil out, as we must with other mineral deposits. The holes are only borings, less than a foot in diameter. My particular experience is largely in oil, and the search for oil has done more to improve deep drilling than any other mining activity. When it has been decided where we are going to drill, we put up at the surface an oil derrick. It has to be tall because it is like a giant block and tackle, and we have to lower into the ground and haul out of the ground great lengths of drill pipe which are rotated by an engine at the top and are fitted with a cutting bit at the bottom.

The geologist needs to know what rocks the drill has reached, so every so often a sample is obtained with a coring bit. It cuts a clean cylinder of rock, from which can be seen the strata the drill has been cutting through. Once we get down to the oil, it usually flows to the surface because great pressure, either from gas or water, is pushing it. This pressure must be under control, and we control it by means of the mud which we circulate down the drill pipe. We endeavour to avoid the old, romantic idea of a gusher, which wastes oil and gas. We want it to stay down the hole until we can lead it off in a controlled manner.

T.F. GASKELL *The Search for the Earth's Minerals* from *Discovery*

17

The fact that we are not sure what 'intelligence' is, nor what is passed on, does not prevent us from finding it a very useful working concept, and placing a certain amount of reliance on tests which 'measure' it. In an intelligence test we take a sample of an individual's ability to solve puzzles and problems of various kinds, and if we have taken a representative sample it will allow us to predict successfully the level of performance he will reach in a wide variety of occupations.

This became of particular importance when, as a result of the 1944 Education Act*, secondary schooling for all became law, and grammar schools, with the exception of a small number of independent foundation schools, became available to the whole population. Since the number of grammar schools in the country could accommodate at most approximately 25 per cent of the total child population of eleven-plus, some kind of selection had to be made. Narrowly academic examinations and tests were felt, quite rightly, to be heavily weighted in favour of children who had had the advantage of highly-academic primary schools and academically biased homes. Intelligence tests were devised to counteract this narrow specialization, by introducing problems which were not based on specifically scholastically-acquired knowledge. The intelligence test is an attempt to assess the general ability of any child to think, reason, judge, analyse

* The **Education Act 1944** changed the education system for secondary schools in England and Wales. This Act, commonly named after the Conservative politician R.A. Butler, introduced the Tripartite System of secondary education and made secondary education free for all pupils.

and synthesize by presenting him with situations, both verbal and practical, which are within his range of competence and understanding.

BEATRIX TUDOR-HART *Leaning to Live*
(subtitle: Understanding Children from Birth to Adolescence, 1963)

18

Two factors weigh heavily against the effectiveness of scientific research in industry. One is the general atmosphere of secrecy in which it is carried out, the other the lack of freedom of the individual research worker. In so far as any inquiry is a secret one, it naturally limits all those engaged in carrying it out from effective contact with their fellow scientists either in other countries or in universities, or even, often enough, in other departments of the same firm. The degree of secrecy naturally varies considerably. Some of the bigger firms are engaged in researches which are of such general and fundamental nature that it is a positive advantage to them not to keep them secret. Yet a great many processes depending on such research are sought for with complete secrecy until the stage at which patents can be taken out. Even more processes are never patented at all but kept as secret processes. This applies particularly to chemical industries, where chance discoveries play a much larger part than they do in physical and mechanical industries. Sometimes the secrecy goes to such an extent that the whole nature of the research cannot be mentioned. Many firms, for instance, have great difficulty in obtaining technical or scientific books from libraries because they are unwilling to have their names entered as having taken out such and such a book for fear the agents of other firms should be able to trace the kind of research they are likely to be undertaking.

J.D. BERNAL* *The Social Function of Science* (1939)

19

A gentleman is, rather than does. He is interested in nothing in a professional way. He is allowed to cultivate hobbies, even eccentricities, but must not practise a vocation. He must know how to ride and shoot and cast a fly. He should have relatives in the army and navy and at least one connection in the diplomatic service. But there are weaknesses in the English gentleman's ability to rule us today. He usually knows nothing of political economy and less about how foreign countries are governed. He does not respect learning and prefers 'sport'. The problem set for society is not the virtues of the type so much as its adequacy for its function, and here grave difficulties arise. He refuses to consider sufficiently the wants of the customer, who must buy, not the thing he desires but the thing the English gentleman wants to sell. He attends inadequately to technological development. Disbelieving in the necessity of large-scale production in the modern world, he is passionately devoted to excessive secrecy, both in finance and method of production. He has an incurable and widespread nepotism in appointment, discounting ability and relying upon a mystic entity called 'character', which means, in a gentleman's mouth, the qualities he traditionally possesses himself. His lack of imagination and the narrowness of his social loyalties have ranged against

* **John Desmond Bernal** FRS (b.10 May 1901, Nenagh, Co. Tipperary, Ireland, d. London, 15 September 1971) was an Irish-born British scientist known for pioneering X-ray crystallography.

him one of the fundamental estates of the realm. He is incapable of that imaginative realism which admits that this is a new world to which he must adjust himself and his institutions, that every privilege he formerly took as of right he can now attain only by offering proof that it is directly relevant to social welfare.

T.H. PEAR *English Social Differences*[*]

20

In the organization of industrial life the influence of the factory upon the physiological and mental state of the workers has been completely neglected. Modern industry is based on the conception of the maximum production at lowest cost, in order that an individual or a group of individuals may earn as much money as possible. It has expanded without any idea of the true nature of the human beings who run the machines, and without giving any consideration to the effects produced on the individuals and on their descendants by the artificial mode of existence imposed by the factory. The great cities have been built with no regard for us. The shape and dimensions of the skyscrapers depend entirely on the necessity of obtaining the maximum income per square foot of ground, and of offering to the tenants offices and apartments that please them. This caused the construction of gigantic buildings where too large masses of human beings are crowded together. Civilized men like such a way of living. While they enjoy the comfort and banal luxury of their dwelling, they do not realize that they are deprived of the necessities of life. The modern city consists of monstrous edifices and of dark, narrow streets full of petrol fumes, coal dust, and toxic gases, torn by the noise of the taxi-cabs, lorries and buses, and thronged ceaselessly by great crowds. Obviously, it has not been planned for the good of its inhabitants.

ALEXIS CARREL *Man, the Unknown*

21

In the early days of the settlement of Australia, enterprising settlers unwisely introduced the European rabbit. This rabbit had no natural enemies in the Antipodes[†], so that it multiplied with that promiscuous abandon characteristic of rabbits. It overran a whole continent. It caused devastation by burrowing and by devouring the herbage which might have maintained millions of sheep and cattle. Scientists discovered that this particular variety of rabbit (and apparently no other animal) was susceptible to a fatal virus disease, *myxomatosis*[‡]. By infecting animals and letting them loose in the burrows, local epidemics of this disease could be created. Later it was found that there was a type of mosquito which acted as the carrier of this disease and passed it on to the rabbits. So while the rest of the world was trying to get rid of mosquitoes, Australia was encouraging this one. It effectively spread the disease all over the continent and drastically reduced the rabbit population. lt later became apparent that rabbits were developing a degree of resistance to this disease, so that the rabbit

[*] http://www.questia.com/library/book/english-social-differences-by-t-h-pear.jsp

[†] In geography, the **antipodes** (from Greek αντίποδες[1], from anti- "opposed" and pous "foot"; pronounced /æn□tɪpə□di z/) of any place on Earth is its antipodal point; that is, the region on the Earth's surface which is diametrically opposite to it. In vernacular British English and Irish English, "The Antipodes" is sometimes used to refer to Australia, New Zealand and South Africa, and "Antipodeans" to their inhabitants.

[‡] **Myxomatosis** (commonly called 'myxi') is a disease which infects rabbits. It is caused by the Myxoma virus. First observed in Uruguay in the late 1800s, it was deliberately introduced into Australia in 1950 in an attempt to control rabbit infestation and population there; see rabbits in Australia. It was introduced illegally to France in 1952 and as a result spread to the rest of Europe.

population was unlikely to be completely exterminated. There were hopes, however, that the problem of the rabbit would become manageable.

Ironically, Europe, which had bequeathed the rabbit as a pest to Australia, acquired this man-made disease as a pestilence. A French physician decided to get rid of the wild rabbits on his own estate and introduced *myxomatosis*. It did not, however, remain within the confines of his estate. It spread through France, where wild rabbits are not generally regarded as a pest but as a sport and a useful food supply, and it spread to Britain where wild rabbits are regarded as a pest but where domesticated rabbits, equally susceptible to the disease, are the basis of a profitable fur industry. The question became one of whether Man could control the disease he had invented.

RITCHIE CALDER* *Science Makes Sense*

22

There has long been a superstition among mariners that porpoises will save drowning men by pushing them to the surface, or protect them from sharks by surrounding them in defensive formation. Marine Studio biologists have pointed out that, however intelligent they may be, it is probably a mistake to credit dolphins with any motive of life-saving. On the occasions when they have pushed to shore an unconscious human being they have much more likely done it out of curiosity or for sport, as in riding the bow waves of a ship. In 1928 some porpoises were photographed working like beavers to push ashore a waterlogged mattress. If, as has been reported, they have protected humans from sharks, it may have been because curiosity attracted them and because the scent of a possible meal attracted the sharks. Porpoises and sharks are natural enemies. It is possible that upon such an occasion a battle ensued, with the sharks being driven away or killed.

Whether it be bird, fish or beast, the porpoise is intrigued with anything that is alive. They are constantly after the turtles, the Ferdinands† of marine life, who peacefully submit to all sorts of indignities. One young calf especially enjoyed raising a turtle to the surface with his snout and then shoving him across the tank like an aquaplane. Almost any day a young porpoise may be seen trying to turn a 300-pound sea turtle over by sticking his snout under the edge of his shell and pushing up for dear life. This is not easy, and may require two porpoises working together. In another game, as the turtle swims across the oceanarium, the first porpoise swoops down from above and butts his shell with his belly. This knocks the turtle down several feet. He no sooner recovers his equilibrium than the next porpoise comes along and hits him another crack. Eventually the turtle has been butted all the way down to the floor of the tank. He is now satisfied merely to try to stand up, but as soon as he does so a porpoise knocks him flat. The turtle at last gives up by pulling his feet under his shell and the game is over.

RALPH NADING HILL‡ *Window in the Sea*

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* Peter Ritchie Ritchie-Calder, Baron Ritchie-Calder (1906, Forfar, Angus - 1982, Edinburgh) was a noted Scottish author, journalist and academic.

† The Story of **Ferdinand** (1936) is the best-known work written by American author Munro Leaf and illustrated by Robert Lawson . The children's book tells the story of a bull who would rather smell flowers than fight in bullfights. He sits in the middle of the bull ring failing to take heed of any of the provocations of the matador and others to fight.

‡ Ralph Nading Hill (September 19, 1917 - December 10, 1987) was a Vermont writer and preservationist.

23

It is fairly clear that the sleeping period must have some function, and because there is so much of it the function would seem to be important. Speculations about its nature have been going on for literally thousands of years, and one odd finding that makes the problem puzzling is that it looks very much as if sleeping is not simply a matter of giving the body a rest. 'Rest', in terms of muscle relaxation and so on, can be achieved by a brief period lying, or even sitting down. The body's tissues are self-repairing and self-restoring to a degree, and function best when more or less continuously active. In fact a basic amount of movement occurs during sleep which is specifically concerned with preventing muscle inactivity.

If it is not a question of resting the body, then perhaps it is the brain that needs resting? This might be a plausible hypothesis were it not for two factors. First the electroencephalograph (which is simply a device for recording the electrical activity of the brain by attaching electrodes to the scalp) shows that while there is a change in the pattern of activity during sleep, there is no evidence that the total amount of activity is any less. The second factor is more interesting and more fundamental. In l960 an American psychiatrist named William Dement* published experiments† dealing with the recording of eye-movements during sleep. He showed that the average individual's sleep cycle is punctuated with peculiar bursts of eye-movements, some drifting and slow, others jerky and rapid. People woken during these periods of eye-movements generally reported that they had been dreaming. When woken at other times they reported no dreams. If one group of people were disturbed from their eye-movement sleep for several nights on end, and another group were disturbed for an equal period of time but when they were not exhibiting eye-movements, the first group began to show some personality disorders while the others seemed more or less unaffected. The implications of all this were that it was not the disturbance of sleep that mattered, but the disturbance of dreaming.

CHRISTOPHER EVANS *The Stuff of Dreams* from *The Listener*

24

Walking for walking's sake may be as highly laudable and exemplary a thing as it is held to be by those who practise it. My objection to it is that it stops the brain. Many a man has professed to me that his brain never works so well as when he is swinging along the high road or over hill and dale. This boast is not confirmed by my memory of anybody who on a Sunday morning has forced me to partake of his adventure. Experience teaches me that whatever a fellow-guest may have of power to instruct or to amuse when he is sitting in a chair, or standing on a hearth-rug, quickly leaves him when he takes one out for a walk. The ideas that come so thick and fast to him in any room, where are they now? where that encyclopaedic knowledge which he bore so lightly? where the kindling fancy that played like summer lightning over *any* topic that was started? The man's face that was so mobile is set now; gone is the light from his

* **William C. Dement** MD PhD (born 1928), is a pioneering US sleep researcher, and founder of the Sleep Research Center, the world's first sleep laboratory, at Stanford University. He is a leading authority on sleep, sleep deprivation, and the diagnosis and treatment of sleep disorders such as sleep apnea and narcolepsy.

† DEMENT WC, FISHER C, THE EFFECT OF DREAM DEPRIVATION AND EXCESS - AN EXPERIMENTAL DEMONSTRATION OF THE NECESSITY FOR DREAMING. **PSYCHOANALYTIC QUARTERLY** Volume: 29 Issue: 2 Pages: 607-608 Published: ~1960

fine eyes. He says that A (our host) is a thoroughly good fellow. Fifty yards further on, he adds that A is one of the best fellows he has ever met. We tramp another furlong or so, and he says that Mrs A is a charming woman. Presently he adds that she is one of the most charming women he has ever known. We pass an inn. He reads vapidly aloud to me: 'The King's Arms. Licensed to sell Ales and Spirits.' I foresee that during the rest of the walk he will read aloud any inscription that occurs. We pass a milestone. He points at it with his stick, and says 'Uxminster. 11 Miles.' We turn a sharp corner at the foot of the hill. He points at the wall, and says 'Drive Slowly.' I see far ahead, on the other side of the hedge bordering the high road, a small notice-board. He sees it too. He keeps his eye on it. And in due course 'Trespassers,' he says, 'will be Prosecuted.' Poor man!—mentally a wreck.

MAX BEERBOHM* *Going out for a Walk*

25

How it came about that snakes manufactured poison is a mystery. Over the periods their saliva, a mild, digestive juice like our own, was converted into a poison that defies analysis even today. It was not forced upon them by the survival competition; they could have caught and lived on prey without using poison just as the thousands of non-poisonous snakes still do. Poison to a snake is merely a luxury; it enables it to get its food with very little effort, no more effort than one bite. And why only snakes? Cats, for instance, would be greatly helped; no running fights with large, fierce rats or tussles with grown rabbits—just a bite and no more effort needed. In fact, it would be an assistance to all the carnivorae—though it would be a two-edged weapon when they fought each other. But, of the vertebrates, unpredictable Nature selected only snakes (and one lizard). One wonders also why Nature, with some snakes concocted poison of such extreme potency.

In the conversion of saliva into poison one might suppose that a fixed process took place. It did not; some snakes manufactured a poison different in every respect from that of others, as different as arsenic is from strychnine, and having different effects. One poison acts on the nerves, the other on the blood.

The makers of the nerve poison include the mambas and the cobras and their venom is called *neurotoxic*. Vipers (adders) and rattlesnakes manufacture the blood poison, which is known as *haemolytic*. Both poisons are unpleasant, but by far the more unpleasant is the blood poison. It is said that the nerve poison is the more primitive of the two, that the blood poison is, so to speak, a newer product from an improved formula. Be that as it may, the nerve poison does its business with man far more quickly than the blood poison. This, however, means nothing. Snakes did not acquire their poison for use against man but for use against prey such as rats and mice, and the effects on these of viperine poison is almost immediate.

JOHN CROMPTON *The Snake*

26

* Sir Henry Maximilian Beerbohm (August 24, 1872 – May 20, 1956) was an English parodist and caricaturist.

William S. Hart* was, perhaps, the greatest of all Western stars, for unlike Gary Cooper† and John Wayne‡ he appeared in nothing but Westerns. From 1914 to 1924 he was supreme and unchallenged. It was Hart who created the basic formula of the Western film, and devised the protagonist he played in every film he made, the good-bad man, the accidental, noble outlaw, or the honest but framed cowboy, or the sheriff made suspect by vicious gossip; in short, the individual in conflict with himself and his frontier environment.

Unlike most of his contemporaries in Hollywood, Hart actually knew something of the old West. He had lived in it as a child when it was already disappearing, and his hero was firmly rooted in his memories and experiences, and in both the history and the mythology of the vanished frontier. And although no period or place in American history has been more absurdly romanticized, myth and reality did join hands in at least one arena, the conflict between the individual and encroaching civilization.

Men accustomed to struggling for survival against the elements and Indians were bewildered by politicians, bankers and business-men, and unhorsed by fences, laws and alien taboos. Hart's good-bad man was always an outsider, always one of the disinherited, and if he found it necessary to shoot a sheriff or rob a bank along the way, his early audiences found it easy to understand and forgive, especially when it was Hart who, in the end, overcame the attacking Indians.

Audiences in the second decade of the twentieth century found it pleasant to escape to a time when life, though hard, was relatively simple. We still do; living in a world in which undeclared aggression, war, hypocrisy, chicanery, anarchy and impending immolation are part of our daily lives, we all want a code to live by.

CARL FOREMAN§ *Virtue and a Fast Gun* from *The Observer*

27

Why does the idea of progress loom so large in the modern world? Surely because progress of a particular kind is actually taking place around us and is becoming more and more manifest. Although mankind has undergone no general improvement in intelligence or morality, it has made extraordinary progress in the accumulation of knowledge. Knowledge began to increase as soon as the thoughts of one individual could be communicated to another by means of speech. With the invention of writing, a great advance was made, for knowledge could then be not only communicated but also stored. Libraries made education possible, and education in its turn added to libraries: the growth of knowledge followed a kind of compound-interest law, which was greatly enhanced by the invention of printing. All this was comparatively slow until, with the coming of science, the *tempo* was suddenly raised. Then knowledge began to be accumulated according to a systematic plan. The trickle became a stream; the stream has now become a torrent. Moreover, as soon as new knowledge is acquired,

* **William Surrey Hart** (December 6, 1864 – June 23, 1946) was an American silent film actor, screenwriter, director and producer.
† **Frank James "Gary" Cooper** (May 7, 1901 – May 13, 1961) was an American two-time Academy Award-winning film actor of English heritage. He was renowned for his quiet, understated acting style and his stoic, individualistic, emotionally restrained, but at times intense screen persona, which was particularly well suited for the many Westerns he made.
‡ **John Wayne** (May 26, 1907 – June 11, 1979) was an Academy Award-winning American film actor. He epitomized ruggedly individualistic masculinity, and has become an enduring American icon.
§ Carl Foreman CBE (July 23, 1914 – June 26, 1984) was an American screenwriter and film producer who was blacklisted by the Hollywood movie studio bosses in the 1950s.

it is now turned to practical account. What is called 'modern civilization' is not the result of a balanced development of all man's nature, but of accumulated knowledge applied to practical life. The problem now facing humanity is: What is going to be done with all this knowledge? As is so often pointed out, knowledge is a two-edged weapon which can be used equally for good or evil. It is now being used indifferently for both. Could any spectacle, for instance, be more grimly whimsical than that of gunners using science to shatter men's bodies while, close at hand, surgeons use it to restore them? We have to ask ourselves very seriously what will happen if this twofold use of knowledge, with its ever-increasing power, continues.

G.N.M. TYRRELL *The Personality of Man*

28

No two sorts of birds practise quite the same sort of flight; the varieties are infinite; but two classes may be roughly seen. Any ship that crosses the pacific is accompanied for many days by the smaller albatross, which may keep company with the vessel for an hour without visible or more than occasional movement of wing. The currents of air that the walls of the ship direct upwards, as well as in the line of its course are enough to give the great bird with its immense wings sufficient sustenance and progress. The albatross is the king of the gliders, the class of fliers which harness the air to their purpose, but must yield to its opposition. In the contrary school the duck is supreme. It comes nearer to the engines with which man has 'conquered' the air, as he boasts. Duck, and like them the pigeons, are endowed with steel-like muscles, [that] are a good part of the weight of the bird, and these will ply the short wings with irresistible power that they can bore for long distances through an opposite gale before exhaustion follows. Their humbler followers, such as partridges, have a like power of strong propulsion, but soon tire. You may pick them up in utter exhaustion, if wind over the sea has driven them to a long journey. The swallow shares the virtues of both schools in highest measure. It tires not nor does it boast of its power; but belongs to the air, travelling it may be six thousand miles to and from its northern nesting home feeding its flown young as it flies and slipping through a medium that seems to help its passage even when the wind is adverse. Such birds do us good, though we no longer take omens from their flight on this side and that; and even the most superstitious villagers no longer take off their hats to the magpie and wish it good-morning.

WILLIAM BEACH THOMAS *A Countryman's Creed*[*]

29

A young man sees a sunset and, unable to understand or to express the emotion that it rouses in him, concludes that it must be the gateway to a world that lies beyond. It is difficult for any of us in moments of intense aesthetic experience to resist the suggestion that we are catching a glimpse of a light that shines down to us from a different realm of existence, different and, because the experience is intensely moving, in some way higher. And, though the gleams blind and dazzle, yet do they convey a hint of beauty and serenity greater than we have known or imagined. Greater too than

[*] Published by Michael Joseph Ltd., 26 Bloomsbury Street, London First Edition 1946. London 1946

we can describe, for language, which was invented to convey the meanings of this world, cannot readily be fitted to the uses of another.

That all great art has this power of suggesting a world beyond is undeniable. In some moods Nature shares it. There is no sky in June so blue that it does not point forward to a bluer, no sunset so beautiful that it does not waken the vision of a greater beauty, a vision which passes before it is fully glimpsed, and in passing leaves an indefinable longing and regret. But, if this world is not merely a bad joke, life a vulgar flare amid the cool radiance of the stars, and existence an empty laugh braying across the mysteries; if these intimations of a something behind and beyond are not evil humour born of indigestion, or whimsies sent by the devil to mock and madden us, if, in a word, beauty means something, yet we must not seek to interpret the meaning. If we glimpse the unutterable, it is unwise to try to utter it, nor should we seek to invest with significance that which we cannot grasp. Beauty in terms of our human meanings *is* meaningless.

C.E.M JOAD[*] *Pieces of Mind*

30

Each civilization is born, it culminates, and it decays. There is a widespread testimony that this ominous fact is due to inherent biological defects in the crowded life of cities. Now, slowly and at first faintly, an opposite tendency is showing itself. Better roads and better vehicles at first induced the wealthier classes to live on the outskirts of the cities. The urgent need for defence had also vanished. This tendency is now spreading rapidly downwards. But a new set of conditions is just showing itself. Up to the present time, throughout the eighteenth and nineteenth centuries, this new tendency placed the home in the immediate suburbs, but concentrated manufacturing activity, business relations, government, and pleasure in the centres of the cities. Apart from the care of children and periods of sheer rest, the active lives were spent in the cities. In some ways the concentration of such activities was even more emphasized, and the homes were pushed outwards even at the cost of the discomfort of commuting. But, if we examine the trend of technology during the past generation, the reasons for this concentration are largely disappearing. Still more, the reasons for the choice of sites for cities are also altering. Mechanical power can be transmitted for hundreds of miles, men can communicate almost instantaneously by telephone, the chiefs of great organizations can be transported by airplanes, the cinemas can produce plays in every village, music, speeches, and sermons can be broadcast. Almost every reason for the growth of the cities, concurrently with the growth of civilization has been profoundly modified.

A.N. WHITEHEAD *Adventures of Ideas*

31

Many people in industry and the Services, who have practical experience of noise, regard any investigation of this question as a waste of time; they are not prepared even to admit the possibility that noise affects people. On the other hand, those who dislike

[*] **Cyril Edwin Mitchinson Joad** (August 12, 1891 – April 9, 1953) was an English philosopher and broadcasting personality. He is most famous for his appearance on the The Brains Trust, an extremely popular BBC Radio wartime discussion programme

noise will sometimes use most inadequate evidence to support their pleas for a quieter society. This is a pity, because noise abatement really is a good cause, and it is likely to be discredited if it gets to be associated with bad science.

One allegation often made is that noise produces mental illness. A recent article in a weekly newspaper, for instance, was headed with a striking illustration of a lady in a state of considerable distress, with the caption 'She was yet another victim, reduced to a screaming wreck'. On turning eagerly to the text, one learns that the lady was a typist who found the sound of office typewriters worried her more and more until eventually she had to go into a mental hospital. Now the snag in this sort of anecdote is of course that one cannot distinguish cause and effect. Was the noise a cause of the illness, or were the complaints about noise merely a symptom? Another patient might equally well complain that her neighbours were combining to slander her and persecute her, and yet one might be cautious about believing this statement.

What is needed in the case of noise is a study of large numbers of people living under noisy conditions, to discover whether they are mentally ill more often than other people are. The United States Navy, for instance, recently examined a very large number of men working on aircraft carriers: the study was known as Project Anehin. It can be unpleasant to live even several miles from an aerodrome; if you think what it must be like to share the deck of a ship with several squadrons of jet aircraft, you will realize that a modern navy is a good place to study noise. But neither psychiatric interviews nor objective tests were able to show any effects upon these American sailors. This result merely confirms earlier American and British studies: if there is any effect of noise upon mental health it must be so small that present methods of psychiatric diagnosis cannot find it. That does not prove that it does not exist; but it does mean that noise is less dangerous than, say, being brought up in an orphanages—which really is a mental health hazard.

D.E. BROADBENT* *Non-auditory Effects of Noise* from *Science Survey*

32

It is animals and plants which lived in or near water whose remains are most likely to be preserved, for one of the necessary conditions of preservation is quick burial, and it is only in the seas and rivers, and sometimes lakes, where mud and silt have been continuously deposited, that bodies and the like can be rapidly covered over and preserved.

But even in the most favourable circumstances only a small fraction of the creatures that die are preserved in this way before decay sets in or, even more likely, before scavengers eat them. After all, all living creatures live by feeding on something else, whether it be plant or animal, dead or alive, and it is only by chance that such a fate is avoided. The remains of plants and animals that lived on land are much more rarely preserved, for there is seldom anything to cover them over. When you think of the innumerable birds that one sees flying about, not to mention the equally numerous

* Donald E. Broadbent (Birmingham, 1926-1993) was an influential British experimental psychologist. His career and his research work bridged the gap between the pre-Second World War approach of Sir Frederick Bartlett and its wartime development into applied psychology, and what from the late 1960s became known as cognitive psychology.

small animals like field mice and voles which you do not see, it is very rarely that one comes across a dead body, except, of course, on the roads. They decompose and are quickly destroyed by the weather or eaten by some other creature.

It is almost always due to some very special circumstances that traces of land animals survive, as by falling into inaccessible caves, or into an ice crevasse, like the Siberian mammoths, when the whole animal is sometimes preserved, as in a refrigerator. This is what happened to the famous Beresovka mammoth which was found preserved and in good condition. In his mouth were the remains of fir trees—the last meal that he had before he fell into the crevasse and broke his back. The mammoth has now been restored in the Palaeontological Museum in Leningrad. Other animals were trapped in tar pits, like the elephants, sabretoothed cats, and numerous other creatures that are found at Rancho la Brea, which is now just a suburb of Los Angeles. Apparently what happened was that water collected on these tar pits, and the bigger animals like the elephants ventured out on to the apparently firm surface to drink, and were promptly bogged in the tar. And then, when they were dead, the carnivores, like the sabre-toothed cats and the giant wolves, came out to feed and suffered exactly the same fate. There are also endless numbers of birds in the tar as well.

ERROL WHITE *The Past Life of the Earth* from *Discovery*

33

From the seventeenth-century empire of Sweden, the story of a galleon that sank at the start of her maiden voyage in 1628 must be one of the strangest tales of the sea. For nearly three and a half centuries she lay at the bottom of Stockholm harbour until her discovery in 1956. This was the *Vasa*, royal flagship of the great imperial fleet.

King Gustavus Adolphus*, 'The Northern Hurricane', then at the height of his military success in the Thirty Years' War, had dictated her measurements and armament. Triple gun-decks mounted sixty-four bronze cannon. She was intended to play a leading rôle in the growing might of Sweden.

As she was prepared for her maiden voyage on August 10, 1628, Stockholm was in a ferment. From the Skeppsbron and surrounding islands the people watched this thing of beauty begin to spread her sails and catch the wind. They had laboured for three years to produce this floating work of art; she was more richly carved and ornamented than any previous ship. The high stern castle was a riot of carved gods, demons, knights, kings, warriors, mermaids, cherubs; and zoomorphic animal shapes ablaze with red and gold and blue, symbols of courage, power, and cruelty, were portrayed to stir the imaginations of the superstitious sailors of the day.

Then the cannons of the anchored warships thundered a salute to which the *Vasa* fired in reply. As she emerged from her drifting cloud of gun smoke with the water churned to foam beneath her bow, her flags flying, pennants waving, sails filling in the breeze, and the red and gold of her superstructure ablaze with colour, she presented a more majestic spectacle than Stockholmers had ever seen before. All gun-ports were

* **King Gustav II Adolf**, (9 December 1594 – 6 November 1632 (O.S.)[1] or Gustav II Adolphus, widely known by the Latinized name Gustavus Adolphus and variously in historical writings sometimes as simply just Gustavus, or Gustavus the Great, or Gustav Adolf the Great, (Swedish: Gustav Adolf den store, from the special distinction passed by the Swedish Parliament in 1634), was founder of the Swedish Empire (or Stormaktstiden — "the era of great power") at the beginning of what is widely regarded as the Golden Age of Sweden.

open and the muzzles peeped wickedly from them. As the wind freshened there came a sudden squall and the ship made a strange movement, listing to port. The Ordnance Officer ordered all the port cannon to be heaved to starboard to counteract the list, but the steepening angle of the decks increased. Then the sound of rumbling thunder reached the watchers on the shore, as cargo, ballast, ammunition and 400 people went sliding and crashing down to the port side of the steeply listing ship. The lower gun-ports were now below water and the inrush sealed the ship's fate. In that first glorious hour, the mighty *Vasa*, which was intended to rule the Baltic, sank with all flags flying—in the harbour of her birth.

ROY SAUNDERS *The Raising of the 'Vasa'* from *The Listener*

34

This is a sceptical age, but although our faith in many of the things in which our forefathers fervently believed has weakened, our confidence in the curative properties of the bottle of medicine remains the same as theirs. This modern faith in medicines is proved by the fact that the annual drug bill of the Health Services is mounting to astronomical figures and shows no signs at present of ceasing to rise. The majority of the patients attending the medical out-patients departments of our hospitals feel that they have not received adequate treatment unless they are able to carry home with them some tangible remedy in the shape of a bottle of medicine, a box of pills, or a small jar of ointment, and the doctor in charge of the department is only too ready to provide them with these requirements. There is no quicker method of disposing of patients than by giving them what they are asking for, and since most medical men in the Health Services are overworked and have little time for offering time-consuming and little-appreciated advice on such subjects as diet, right living, and the need for abandoning bad habits, etc., the bottle, the box, and the jar are almost always granted them.

Nor is it only the ignorant and ill-educated person who has such faith in the bottle of medicine, especially if it be wrapped in white paper and sealed with a dab of red sealing-wax by a clever chemist. It is recounted of Thomas Carlyle that when he heard of the illness of his friend, Henry Taylor, he went off immediately to visit him, carrying with him in his pocket what remained of a bottle of medicine formerly prescribed for an indisposition of Mrs Carlyle's. Carlyle was entirely ignorant of what the bottle in his pocket contained, of the nature of the illness from which his friend was suffering, and of what had previously been wrong with his wife, but a medicine that had worked so well in one form of illness would surely be of equal benefit in another, and comforted by the thought of the help he was bringing to his friend, he hastened to Henry Taylor's house. History does not relate whether his friend accepted his medical help, but in all probability he did. The great advantage of taking medicine is that it makes no demands on the taker beyond that of putting up for a moment with a disgusting taste, and that is what all patients demand of their doctors—to be cured at no inconvenience to themselves.

KENNETH WALKER* *Patients and Doctors*

35

Many strange new means of transport have been developed in our century, the strangest of them being perhaps the hovercraft. In 1953, a former electronics engineer in his fifties, Christopher Cockerell, who had turned to boat-building on the Norfolk Broads, suggested an idea on which he had been working for many years to the British Government and industrial circles. It was the idea of supporting a craft on a 'pad', or cushion, of low-pressure air, ringed with a curtain of higher pressure air. Ever since, people have had difficulty in deciding whether the craft should be ranged among ships, planes, or land vehicles—for it is something in between a boat and an aircraft. As a shipbuilder, Cockerell was trying to find a solution to the problem of the wave resistance which wastes a good deal of a surface ship's power and limits its speed. His answer was to lift the vessel out of the water by making it ride on a cushion of air, no more than one or two feet thick. This is done by a great number of ring-shaped air jets on the bottom of the craft. It 'flies', therefore, but it cannot fly higher—its action depends on the surface, water or ground, over which it rides.

The first tests on the Solent in 1959 caused a sensation. The hovercraft travelled first over the water, then mounted the beach, climbed up the dunes, and sat down on a road. Later it crossed the Channel, riding smoothly over the waves, which presented no problem.

Since that time, various types of hovercraft have appeared and taken up regular service—cruises on the Thames in London, for instance, have become an annual attraction. But we are only at the beginning of a development that may transform sea and land transport. Christopher Cockerell's craft can establish transport networks in large areas with poor communications such as Africa or Australia; it can become a 'flying fruit-bowl', carrying bananas from the plantations to the ports; giant hovercraft liners could span the Atlantic; and the railway of the future may well be the 'hovertrain', riding on its air cushion over a single rail, which it never touches, at speeds up to 300 m.p.h.—the possibilities appear unlimited.

EGON LARSEN *The Pegasus Book of Inventors*

36

Our knowledge of the oceans a hundred years ago was confined to the two-dimensional shape of the sea-surface and the hazards of navigation presented by the irregularities in depth of the shallow water close to the land. The open sea was deep and mysterious, and anyone who gave more than a passing thought to the bottom confines of the oceans probably assumed that the sea-bed was flat. Sir James Clark Ross† had obtained a sounding of over 2,400 fathoms in 1839, but it was not until 1869, when H.M.S. *Porcupine*‡ was put at the disposal of the Royal Society for several cruises, that a series of deep soundings was obtained in the Atlantic and the first

* Kenneth Walker (1882 - 1966) was a British author and urologist . Among many other books he wrote The Log of the Ark with Geoffrey Boumphrey in 1923, Life's Long Journey and A Study of Gurdjieff's Teaching.
† Sir James Clark Ross (15 April 1800 – 3 April 1862), was a British naval officer and explorer. He explored the Arctic with his uncle Sir John Ross and Sir William Parry, and later led his own expedition to Antarctica.
‡ HMS Porcupine was a Royal Navy 22-gun sixth rate ship, launched in 1807 at Topsham.

samples were collected by dredging the bottom. Shortly after this the famous H.M.S. *Challenger* expedition established the study of the sea-floor as a subject worthy of the most qualified physicists and geologists. A burst of activity associated with the laying of submarine cables soon confirmed the Challenger's observation that many parts of the ocean were two to three miles deep, and the existence of underwater features of considerable magnitude.

Today enough soundings are available to enable a relief map of the Atlantic to be drawn and we know something of the great variety of the sea-bed's topography. Since the sea covers the greater part of the earth's surface it is quite reasonable to regard the sea-floor as the basic form of the crust of the earth, with superimposed upon it the continents, together with the islands and other features of the oceans. The continents form rugged tablelands which stand nearly three miles above the floor of the open ocean. From the shore-line out to a distance which may be anywhere from a few miles to a few hundred miles runs the gentle slope of the continental shelf, geologically part of the continents. The real dividing-line between continents and oceans occurs at the foot of a steeper slope.

This continental slope usually starts at a place somewhere near the 100-fathom mark and in the course of a few hundred miles reaches the true ocean-floor at 2,500–3,000 fathoms. The slope averages about 1 in 30, but contains steep, probably vertical, cliffs, and gentle sediment-covered terraces, and near its lower reaches there is a long tailing-off which is almost certainly the result of material transported out to deep water after being eroded from the continental masses.

T.F. GASKELL *Exploring the Sea-floor* from *Science Survey*

37

The Victorians, realizing that the greatest happiness accorded to man is that provided by a happy marriage, endeavoured to pretend that all their marriages were happy. We, for our part, admitting the fact that no feat of intelligence and character is so exacting as that required of two people who desire to live permanently together on a basis of amity, are obsessed by the problem of how to render the basic facts of cohabitation simpler and more reasonable, in order that unhappy marriages may less frequently result. The Victorians would have considered it 'painful' or 'unpleasant' were one to point out that only four marriages out of every ten are anything but forced servitudes. We ourselves start from this very assumption and try to build from it a theory of more sensible relations between the sexes. Of all forms of arrant untruthfulness Victorian optimism appears to me to have been the most cowardly and the most damaging.

Truth, therefore, is an attitude of the mind. lt is important, if one does not wish to inconvenience and to bore one's friends, not to tell lies. But it is more important not to think lies, or to slide into those mechanical and untruthful habits of thought which are so pleasant and so easy as descents to mental ineptitude. The Victorian habit of mind (which I consider to have been a bad habit of mind) was unduly preoccupied by what was socially and morally convenient. Convenience is, however, in all affairs of life, an execrable test of value. One should have the courage to think uncomfortably, since it is only by rejecting the convenient that one can come to think the truth.

Not, after all, that there is any such thing as truth. At best we can approach to some relative approximation. On the other hand, there is surely such a thing as untruth. One is generally aware when one has said something, or acted in some way which has left on other people an impression not strictly in accordance with the facts. One is generally aware, also, when one has thrust aside an inconvenient thought and slid into its place another thought which is convenient. One's awareness in the former case is in general more acute than in the latter, since we are more on the look-out for the lies we utter than for those we merely think. In fact, however, it is the untruthful thought which is the more vicious of the two. Spoken lies are invariably tiresome and may actually be dishonest. But continuous lying in the mind, a disease to which the Anglo-Saxon is peculiarly exposed, spells the destruction of human thought and character.

HAROLD NICOLSON* *On Telling the Truth* from *Small Talk*

38

Appreciation of sculpture depends upon the ability to respond to form in three dimensions. That is perhaps why sculpture has been described as the most difficult of all arts; certainly it is more difficult than the arts which involve appreciation of flat forms, shape in only two dimensions. Many more people are 'form-blind' than colour-blind. The child learning to see, first distinguishes only two-dimensional shape; it cannot judge distances, depths. Later, for its personal safety and practical needs, it has to develop (partly by means of touch) the ability to judge roughly three-dimensional distances. But having satisfied the requirements of practical necessity, most people go no further. Though they may attain considerable accuracy in the perception of flat form, they do not make the further intellectual and emotional effort needed to comprehend form in its full spatial existence.

This is what the sculptor must do. He must strive continually to think of, and use, form in its full spatial completeness. He gets the solid shape, as it were, inside his head—he thinks of it, whatever its size, as if he were holding it completely enclosed in the hollow of his hand. He mentally visualizes a complex form *from all round itself*; he knows while he looks at one side what the other side is like; he identifies himself with its centre of gravity, its mass, its weight; he realizes its volume, as the space that the shape displaces in the air.

And the sensitive observer of sculpture must also learn to feel shape simply as shape, not as description or reminiscence. He must, for example, perceive an egg as a simple single solid shape, quite apart from its significance as food, or from the literary idea that it will become a bird. And so with solids such as a shell, a nut, a plum, a pear, a tadpole, a mushroom, a mountain peak, a kidney, a carrot, a tree-trunk, a bird, a bud, a lark, a ladybird, a bulrush, a bone. From these he can go on to appreciate more complex forms of combinations of several forms.

HENRY MOORE† *The Sculptor Speaks* from *The Listener*

* Sir Harold George Nicolson KCVO CMG (21 November 1886 – 1 May 1968) was an English diplomat, author, diarist and politician. He was the husband of writer Vita Sackville-West, their unusual relationship being described in their son's book, Portrait of a Marriage.

† Henry Spencer Moore OM CH FBA (30 July 1898 – 31 August 1986) was an English artist and sculptor. He is best known for his abstract monumental bronze sculptures which are located around the world as public works of art.

39

In his own lifetime Galileo was the centre of violent controversy; but the scientific dust has long since settled, and today we can see even his famous clash with the Inquisition in something like its proper perspective. But, in contrast, it is only in modern times that Galileo has become a problem child for historians of science.

The old view of Galileo was delightfully uncomplicated. He was, above all, a man who experimented: who despised the prejudices and book learning of the Aristotelians, who put his questions to nature instead of to the ancients, and who drew his conclusions fearlessly. He had been the first to turn a telescope to the sky, and he had seen there evidence enough to overthrow Aristotle and Ptolemy together. He was the man who climbed the Leaning Tower of Pisa and dropped various weights from the top, who rolled balls down inclined planes, and then generalized the results of his many experiments into the famous law of free fall. But a closer study of the evidence, supported by a deeper sense of the period, and particularly by a new consciousness of the philosophical undercurrents in the scientific revolution, has profoundly modified this view of Galileo. Today, although the old Galileo lives on in many popular writings, among historians of science a new and more sophisticated picture has emerged. At the same time our sympathy for Galileo's opponents has grown somewhat. His telescopic observations are justly immortal; they aroused great interest at the time, they had important theoretical consequences, and they provided a striking demonstration of the potentialities hidden in instruments and apparatus. But can we blame those who looked and failed to see what Galileo saw, if we remember that to use a telescope at the limit of its powers calls for long experience and intimate familiarity with one's instrument? Was the philosopher who refused to look through Galileo's telescope more culpable than those who alleged that the spiral nebulae observed with Lord Rosse's great telescope in the eighteen-forties were scratches left by the grinder? We can perhaps forgive those who said the moons of Jupiter were produced by Galileo's spy-glass if we recall that in his day, as for centuries before, curved glass was the popular contrivance for producing not truth but illusion, untruth; and if a single curved glass would distort nature, how much more would a pair of them?

MICHAEL HOSKIN *Galileo Reborn* from *The Listener*

40

Populations increase and decrease relatively not only to one another, but also to natural resources. In most parts of the world, the relation between population and resources is already unfavourable and will probably become even more unfavourable in the future. This growing poverty in the midst of growing poverty constitutes a permanent menace to peace. And not only to peace, but also to democratic institutions and personal liberty. For overpopulation is not compatible with freedom. An unfavourable relationship between numbers and resources tends to make the earning of a living almost intolerably difficult. Labour is more abundant than goods, and the individual is compelled to work long hours for little pay. No surplus of accumulated purchasing power stands between him and the tyrannies of unfriendly nature or of the equally unfriendly wielders of political and economic power. Democracy is, among

other things, the ability to say 'no' to the boss. But a man cannot say 'no' to the boss, unless he is sure of being able to eat when the boss's favour has been withdrawn. And he cannot be certain of his next meal unless he owns the means of producing enough wealth for his family to live on, or has been able to accumulate a surplus out of past wages, or has a chance of moving to virgin territories, where he can make a fresh start. In an overcrowded country, very few people own enough to make them financially independent; very few are in a position to accumulate purchasing power; and there is no free land. Moreover, in any country where population presses hard upon natural resources, the general economic situation is apt to be so precarious that government control of capital and labour, production and consumption, becomes inevitable. It is no accident that the twentieth century should be the century of highly centralized governments and totalitarian dictatorships; it had to be so for the simple reason that the twentieth century is the century of planetary overcrowding.

ALDOUS HUXLEY* *Themes and Variations*

41

Education is one of the key words of our time. A man without an education, many of us believe, is an unfortunate victim of adverse circumstances deprived of one of the greatest twentieth-century opportunities. Convinced of the importance of education, modern states 'invest' in institutions of learning to get back 'interest' in the form of a large group of enlightened young men and women who are potential leaders. Education, with its cycles of instruction so carefully worked out, punctuated by text-books—those purchasable wells of wisdom—what would civilization be like without its benefits?

So much is certain: that we would have doctors and preachers, lawyers and defendants, marriages and births—but our spiritual outlook would be different. We would lay less stress on 'facts and figures' and more on a good memory, on applied psychology, and on the capacity of a man to get along with his fellow citizens. If our educational system were fashioned after its bookless past we would have the most democratic form of 'college' imaginable. Among the people whom we like to call savages all knowledge inherited by tradition is shared by all; it is taught to every member of the tribe so that in this respect everybody is, equally equipped for life.

It is the ideal condition of the 'equal start' which only our most progressive forms of modern education try to regain. In primitive cultures the obligation to seek and to receive the traditional instruction is binding to all. There are no 'illiterates'—if the term can be applied to peoples without a script—while our own compulsory school attendance became law in Germany in 1642, in France in 1806, and in England in 1876, and is still non-existent in a number of 'civilized' nations. This shows how long it was before we deemed it necessary to make sure that all our children could share in the knowledge accumulated by the 'happy few' during the past centuries.

* Aldous Leonard Huxley (26 July 1894 – 22 November 1963) was an English writer and one of the most prominent members of the famous Huxley family. He spent the later part of his life in the United States, living in Los Angeles from 1937 until his death in 1963. Best known for his novels and wide-ranging output of essays, he also published short stories, poetry, travel writing, and film stories and scripts.

Education in the wilderness is not a matter of monetary means. All are entitled to an equal start. There is none of the hurry which, in our society, often hampers the full development of a growing personality. There, a child grows up under the ever-present attention of his parents, therefore the jungles and the savannahs know of no 'juvenile delinquency'. No necessity of making a living away from home results in neglect of children, and no father is confronted with his inability to 'buy' an education for his child.

JULIUS E. LIPS *The Origin of Things*

42

Parents are often upset when their children praise the homes of their friends and regard it as a slur on their own cooking, or cleaning, or furniture, and often are foolish enough to let the adolescents see that they are annoyed. They may even accuse them of disloyalty, or make some spiteful remark about the friends' parents. Such a loss of dignity and descent into childish behaviour on the part of the adults deeply shocks the adolescents, and makes them resolve that in future they will not talk to their parents about the places or people they visit. Before very long the parents will be complaining that the child is so secretive and never tells them anything, but they seldom realize that they have brought this on themselves.

Disillusionment with the parents, however good and adequate they may be both as parents and as individuals, is to some degree inevitable. Most children have such a high ideal of their parents, unless the parents themselves have been unsatisfactory, that it can hardly hope to stand up to a realistic evaluation. Parents would be greatly surprised and deeply touched if they realize how much belief their children usually have in their character and infallibility, and how much this faith means to a child. If parents were prepared for this adolescent reaction, and realized that it was a sign that the child was growing up and developing valuable powers of observation and independent judgement, they would not be so hurt, and therefore would not drive the child into opposition by resenting and resisting it.

The adolescent, with his passion for sincerity, always respects a parent who admits that he is wrong, or ignorant, or even that he has been unfair or unjust. What the child cannot forgive is the parents' refusal to admit these charges if the child knows them to be true.

Victorian parents believed that they kept their dignity by retreating behind an unreasoning authoritarian attitude; in fact they did nothing of the kind, but children were then too cowed to let them know how they really felt. Today we tend to go to the other extreme, but on the whole this is a healthier attitude both for the child and the parent. It is always wiser and safer to face up to reality, however painful it may be at the moment.

DORIS ODLUM *Journey Through Adolescence*

43

Faith in controlled nuclear fission is now being shown by the construction of atomic power stations. In Britain, Calder Hall* on the coast of Cumberland† first made its contribution to the National Electricity grid in 1957. Subsequently a chain of nuclear power stations was planned. Of necessity they are sited near the coasts or tidal water because of the need of much water for cooling and a certain discharge of possible radioactive effluent. Atomic power is associated in the public mind with the destructive force of atom bombs and partly for this reason, though it is claimed that there is no danger to be associated with atomic power stations, they are being sited away from populous centres.

The present position is that the three main sources of power are coal, oil and water power. We sometimes refer to electricity, gas or petrol as if they were the actual source of power, forgetting that electricity must be generated by the consumption of coal or oil or by the utilization of water power, whilst coke, gas and petrol are examples of secondary fuels by which coal and oil may be more effectively used.

Where alternative sources of power are available there are some marked contrasts in handling. The bulk and weight of coal required in the majority of manufacturing industries is large in comparison with the bulk and weight of other raw materials. This is not always true—as with the manufacture of pig iron and steel from low-grade iron ores—but it did lead to the concentration of industrial developments on the coal-fields, a phenomenon well seen in such countries as Britain where the Industrial Revolution came before the days of oil or electricity. Coal being a solid must be distributed mainly by rail or water.

By way of contrast oil can be transported large distances by pipeline but over-seas movement has involved building of large numbers of tankers, including now some of the largest vessels afloat. Unless suitable on other grounds oilfields have not become industrial regions; on the contrary the oil industry is marked by a certain amount of smell and an element of danger, hence the sitting of refineries at a distance from population centres. It is not always realized that the owners of pipelines can handle the oil of different customers, sending it through at different periods. Natural gas can also be transported large distances by pipe. Early in 1959 Britain received the first ship cargo of natural gas—liquefied for the purpose of transport.

L. DUDLEY STAMP‡ *Our Developing World*

44

If a nation is essentially disunited, it is left to the government to hold it together. This increases the expense of government, and reduces correspondingly the amount of economic resources that could be used for developing the country. And it should not be forgotten how small those resources are in a poor and backward country. Where the cost of government is high, resources for development are correspondingly low.

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* **Calder Hall** was the world's first nuclear power station to deliver electricity in commercial quantities (although the 5 MW "semi-experimental" reactor at Obninsk in the Soviet Union was connected to the public supply in 1954).[1] The design was codenamed PIPPA (Pressurised Pile Producing Power and Plutonium) by the UKAEA to denote the plant's dual commercial and military role.

† **Cumberland** is one of the 39 historic counties of England. It formed an administrative county from 1889 to 1974 (excluding Carlisle from 1915) and now forms part of Cumbria.

‡ Sir (Laurence) Dudley Stamp, CBE, DSc, D. Litt, LLD, Ekon D, DSc Nat (March 9, 1898(1898-03-09) - August 8, 1966), was professor of geography at Rangoon and London, and one of the internationally best known British geographers of the 20th century.

This may be illustrated by comparing the position of a nation with that of a private business enterprise. An enterprise has to incur certain costs and expenses in order to stay in business. For our purposes, we are concerned only with one kind of cost—the cost of managing and administering the business. Such administrative overhead in a business is analogous to the cost of government in a nation. The administrative overhead of a business is low to the extent that everyone working in the business can, be trusted to behave in a way that best promotes the interests of the firm. If they can each be trusted to take such responsibilities, and to exercise such initiative as falls within their sphere, then administrative overhead will be low. It will be low because it will be necessary to have only one man looking after each job, without having another man to check upon what he is doing, keep him in line, and report on him to someone else. But if no one can be trusted to act in a loyal and responsible manner towards his job, then the business will require armies of administrators, checkers, and foremen, and administrative overhead will rise correspondingly. As administrative overhead rises, so the earnings of the business, after meeting the expense of administration, will fall; and the business will have less money to distribute as dividends or invest directly in its future progress and development.

It is precisely the same with a nation. To the extent that the people can be relied upon to behave in a loyal and responsible manner, the government does not require armies of police and civil servants to keep them in order. But if a nation is disunited, the government cannot be sure that the actions of the people will be in the interests of the nation; and it will have to watch, check, and control the people accordingly. A disunited nation therefore has to incur unduly high costs of government.

RAYMOND FROST *The Backward Society*

45

At the age of twelve years, the human body is at its most vigorous. It has yet to reach its full size and strength, and its owner his or her full intelligence; but at this age the likelihood of death is least. Earlier we were infants and young children, and consequently more vulnerable; later, we shall undergo a progressive loss of our vigour and resistance which, though imperceptible at first, will finally become so steep that we can live no longer, however well we look after ourselves, and however well society, and our doctors, look after us. This decline in vigour with the passing of time is called ageing. It is one of the most unpleasant discoveries which we all make that we *must* decline in this way, that if we escape wars, accidents and diseases we shall eventually 'die of old age', and that this happens at a rate which differs little from person to person, so that there are heavy odds in favour of our dying between the ages of sixty-five and eighty. Some of us will die sooner, a few will live longer—on into a ninth or tenth decade. But the chances are against it, and there is a virtual limit on how long we can hope to remain alive, however lucky and robust we are.

Normal people tend to forget this process unless and until they are reminded of it. We are so familiar with the fact that man ages, that people have for years assumed that the process of losing vigour with time, of becoming more likely to die the older we get, was something self-evident, like the cooling of a hot kettle or the wearing-out of a pair

of shoes. They have also assumed that all animals, and probably other organisms such as trees, or even the universe itself, must in the nature of things 'wear out'. Most animals we commonly observe do in fact age as we do if given the chance to live long enough; and mechanical systems like a wound watch, or the sun, do in fact run out of energy in accordance with the second law of thermodynamics* (whether the whole universe does so is a moot point at present). But these are not analogous to what happens when man ages. A run-down watch is still a watch and can be rewound. An *old* watch, by contrast, becomes so worn and unreliable that it eventually is not worth mending. But a watch could never repair itself—it does not consist of living parts, only of metal, which wears away by friction. We could, at one time, repair ourselves—well enough, at least, to overcome all but the most instantly fatal illnesses and accidents. Between twelve and eighty years we gradually lose this power; an illness which at twelve would knock us over, at eighty can knock us out, and into our grave. If we could stay as vigorous as we are at twelve, it would take about 700 years for half of us to die, and another 700 for the survivors to be reduce by half again.

ALEX COMFORT† *The Process of Ageing*

46

After millennia of growth so slow that each generation hardly noticed it, the cities are suddenly racing off in every direction. The world population goes up by two per cent a year, city population goes up by four per cent a year, but in big cities the rate may be as much as five and six per cent a year. To give only one example of almost visible acceleration, Athens today grows by three dwellings and 100 square metres of road every hour. There is no reason to believe that this pace will slacken. As technology gradually swallows up all forms of work, industrial and agricultural, the rural areas are going to shrink, just as they have shrunk in Britain, and the vast majority of their people will move into the city. In fact, in Britain now only about four or five per cent of people live in rural areas and depend upon them; all through the developing world the vanguard of the rural exodus has reached the urban fringes already, and there they huddle, migrants in the favellas and barrios of Latin America, in shanty towns in Africa, in those horrifying encampments one sees on the outskirts of Calcutta and Bombay. We are heading towards an urban world.

This enormous increase will go ahead whatever we do, and we have to remember that the new cities devour space. People now acquire far more goods and things. There is a greater density of household goods; they demand more services such as sewage and drainage. Above all the car changes everything: rising incomes and rising populations can make urban car density increase by something like four and five per cent in a decade; traffic flows rise to fill whatever scale of highways are provided for them. The car also has a curious ambivalence: it creates and then it destroys mobility. The car tempts people further out and then gives them the appalling problem of getting back.

* **Second law of thermodynamics**, about entropy The total entropy of any isolated thermodynamic system tends to increase over time, approaching a maximum value

† Alexander Comfort (10 February 1920-26 March 2000) was a medical professional, gerontologist, anarchist, pacifist, conscientious objector and writer, best known for The Joy of Sex, which played a part in what is often called the sexual revolution. He was also the author of many other books on a variety of topics.

It makes them believe they can spend Sunday in Brighton, but makes it impossible for them to return before, say, two in the morning. People go further and further away to reach open air and countryside which continuously recedes from them, and just as their working weeks decline and they begin to have more time for leisure, they find they cannot get to the open spaces or the recreation or the beaches which they now have the time to enjoy.

Recently some studies were made in the behaviour of mice when exposed to more than a certain degree of density, frustration, and noise, and the mice just became deranged. I think some sociologists wonder whether it might not be the same for men. This combination of very high density of population, goods and services, and machines, all increasing with almost bruta1 speed, does account for some really antisocial tendencies in modern urban growth.

BARBARA WARD *The Menace of Urban Explosion* from *The Listener*

47

The modern Plato, like his ancient counterpart, has an unbounded contempt for politicians and statesmen and party leaders who are not university men. He finds politics a dirty game, and only enters them reluctantly because he knows that at the very least he and his friends are better than the present gang. Brought up in the traditions of the ruling classes, he has a natural pity for the common people whom he has learnt to know as servants, and observed from a distance at their work in the factory, at their play in the parks and holiday resorts. He has never mixed with them or spoken to them on equal terms, but has demanded and generally received a respect due to his position and superior intelligence. He knows that if they trust him, he can give them the happiness which they crave. A man of culture, he genuinely despises the self-made industrialist and newspaper-king: with a modest professional salary and a little private income of his own, he regards money-making as vulgar and avoids all ostentation. Industry and finance seem to him to be activities unworthy of gentlemen, although, alas, many are forced by exigencies of circumstance to take some part in them. An intellectual, he gently laughs at the superstitions of most Christians, but he attends church regularly because he sees the importance of organized religion for the maintenance of sound morality among the lower orders, and because he dislikes the scepticism and materialism of radical teachers. His genuine passions are for literature and the philosophy of science and he would gladly spend all his time in studying them. But the plight of the world compels his unwilling attention, and when he sees that human stupidity and greed are about to plunge Europe into chaos and destroy the most glorious civilization which the world has known, he feels that it is high time for men of good sense and good will to intervene and to take politics out of the hands of the plutocrats of the Right and the woolly-minded idealists of the Left. Since he and his kind are the only representatives of decency combined with intelligence, they must step down into the arena and save the masses for themselves.

R.H.S. CROSSMAN *Plato Today*

48

I have known very few writers, but those I have known, and whom I respect, confess at once that they have little idea where they are going when they first set pen to paper. They have a character, perhaps two; they are in that condition of eager discomfort which passes for inspiration, all admit radical changes of destination once the journey has begun; one, to my certain knowledge, spent nine months on a novel about Kashmir, then reset the whole thing in the Scottish Highlands. I never heard of anyone making a 'skeleton', as we were taught at school. In the breaking and remaking, in the timing, interweaving, beginning afresh, the writer comes to discern things in his material which were not consciously in his mind when he began. This organic process, often leading to moments of extraordinary self-discovery, is of an indescribable fascination. A blurred image appears, he adds a brushstroke and another, and it is gone; but something was there, and he will not rest till he has captured it. Sometimes the yeast within a writer outlives a book he has written. I have heard of writers who read nothing but their own books; like adolescents they stand before the mirror, and still cannot fathom the exact outline of the vision before them. For the same reason, writers talk interminably about their own books, winkling out hidden meanings, super-imposing new ones, begging response from those around them. Of course a writer doing this is misunderstood: he might as well try to explain a crime or a love affair. He is also, incidentally, an unforgivable bore.

This temptation to cover the distance between himself and the reader, to study his image in the sight of those who do not know him, can be his undoing: he has begun to write to please.

A young English writer made the pertinent observation a year or two back that the talent goes into the first draft, and the art into the drafts that follow. For this reason also the writer, like any other artist, has no resting place, no crowd or movement in which he may take comfort, no judgment from outside which can replace the judgment from within. A writer makes order out of the anarchy of his heart; he submits himself to a more ruthless discipline than any critic dreamed of, and when he flirts with fame, he is taking time off from living with himself, from the search for what *his* world contains at its inmost point.

JOHN LE CARRÉ* *What Every Writer Wants* from *Harper's*

49

Rockets and artificial satellites can go far above the ionosphere, and even escape from the Earth. Yet they are complex and expensive, and in their present stage of development they cannot lift massive telescopes, keep them steady while the observations are being carried out, and then return them safely. Balloons are much easier to handle, and are also vastly cheaper. Their main limitation is that they are incapable of rising to the ionosphere. A height of between 80,000 and 90,000 feet is as much as can reasonably be expected, and so balloon-borne instruments can contribute little to either ultra-violet astronomy or X-ray astronomy. All the same, the balloon has

* John le Carré (pseudonym of David John Moore Cornwell, born 19 October 1931) is an English author of espionage novels, several of which have been adapted for film and television. He worked for MI5 and MI6 in the 1950s and 1960s, before leaving the secret service to devote himself to writing after the success of The Spy Who Came In from the Cold.

much to be said in its favour, since it can at least carry heavy equipment above most of the atmospheric mass—thus eliminating blurring and unsteadiness of the images. Moreover, water-vapour and carbon dioxide in the lower air absorb most of the infra-red radiations sent to us from the planets. Balloon ascents overcome this hazard with ease.

Hot-air balloons date back to the year 1783, and within a few months of the first flight a French scientist, Charles, went up two miles in a free balloon. Yet there is little resemblance between these crude vehicles and a modern scientific balloon, which has by now become an important research tool.

The main development has been carried out by M. Schwarzschild* and his team at Princeton University in the United States, in collaboration with the United States Navy, the National Science Foundation, and the National Aeronautics and Space Administration. The 'Stratoscope' flights of 1959, concerned mainly with studies of the Sun, were remarkably successful, and the project has now been extended. With Stratoscope II, the overall height from the telescope to the top of the launch balloon is 666 feet; the balloons together weigh over two tons, and another two tons of ballast are carried for later release if height has to be maintained during the night. The telescope, plus its controls, weighs three-and-a-half tons. Two large parachutes are also carried; in case of emergency, the instruments and their records can be separated from the main balloon system, and brought down gently. Many of the radio and electronic devices used are similar to those of artificial satellites.

PATRICK MOORE† *Balloon Astronomy* from *The Listener*

50

In mediaeval times rivers were the veins of the body politic as well as economic. Boundaries between states or shires, they were crossed by fords which became the sites of towns, or by bridges which were often points of battle. Upon rivers the people of that time depended for food, power and transport.

In our day fish are caught in the sea and brought to us by rail and lorry; only the angler still thinks fresh-water fish important, and pollution of rivers drives him into smaller and smaller reaches in which to practise his sport. But in earlier times, when sea fish were eaten only by those who lived on the sea coast, when meat was obtainable only for part of the year, and when fasts were frequent and universally practised, river fish played an important part in the national life. Every abbey and great man's house had its fish pond, and across the rivers great and small stretched the fish weirs, usually

* **Martin Schwarzschild**, **1965 Bruce Medalist** the son of German astrophysicist Karl Schwarzschild, earned his Ph.D. at Göttingen. He left Germany in 1936, researched and taught at Oslo, Harvard, and Columbia, and, after serving in the U.S. Army in World War II, joined the faculty of Princeton University in 1947. His work on stellar structure and evolution led to improved understanding of pulsating stars, differential solar rotation, post-main sequence evolutionary tracks on the Hertzsprung-Russell diagram (including how stars become red giants), hydrogen shell sources, the helium flash, and the ages of star clusters. Much of this was done with R. Härm. Schwarzschild's 1958 book, *Structure and Evolution of the Stars*, taught a generation of astrophysicists how to apply electronic computers to the computation of stellar models. In the 1950s and '60s he headed the Stratoscope projects, which took instrumented balloons to unprecedented heights. The first Stratoscope produced high resolution images of solar granules and sunspots, confirming the existence of convection in the solar atmosphere, and the second obtained infrared spectra of planets, red giant stars, and the nuclei of galaxies. In his later years he made significant contributions toward understanding the dynamics of elliptical galaxies. Schwarzschild was renowned as a teacher and held major leadership positions in several scientific societies.

† Sir Alfred Patrick Caldwell-Moore, CBE, HonFRS, FRAS (born 4 March 1923 in Pinner) known as Patrick Moore, is an English amateur astronomer who has attained prominent status in astronomy as a writer, researcher, radio commentator and television presenter of the subject, and who is credited as having done more than any other to raise the profile of astronomy among the British general public.

made of stakes and nets or basket-work. Between the owners of the fisheries and the bargemaster who needed an unimpeded passage continuous war was fought, till the importance of fresh-water fish lessened as the practice of fasting ceased to be universal, as meat became available all the year round, and as the transport of sea fish inland became practicable.

Rivers were also the most important source of power. Every stream had its mills, not only for grinding corn, but for all the other industrial processes of the time, such as fulling* cloth or driving the hammers of ironworks. Placed down the bank wherever a head of water could be got, these mills were to be found on the tiny stream that ran through a village, or on the bigger river that was also used for navigation. An artificial cut was made from the river to bring the water at proper height to the water-wheel, and, in order to make sure of a supply of water at all seasons, the mill-owner usually built a weir across the river to hold back the water and so form an artificial reservoir. If the river were navigable, the centre of such a weir was made of planks held vertically by cross beams so that they could be removed when it was necessary to pass a barge, or was fitted with a single pair of gates. Such weirs were called staunches or flash-locks; they did not disappear from the bigger rivers till present times, and may still be seen in the Fens*.

* Cleansing and thickening.

CHARLES HADFIELD *British Canals*

51

Two main techniques have been used for training elephants, which we may call respectively the tough and the gentle. The former method simply consists of setting an elephant to work and beating him until he does what is expected of him. Apart from any moral considerations this is a stupid method of training, for it produces a resentful animal who at a later stage may well turn man-killer. The gentle method requires more patience in the early stages, but produces a cheerful, good-tempered elephant who will give many years of loyal service.

The first essential in elephant training is to assign to the animal a single mahout who will be entirely responsible for the job. Elephants like to have one master just as dogs do, and are capable of a considerable degree of personal affection. There are even stories of half-trained elephant calves who have refused to feed and pined to death when by some unavoidable circumstance they have been deprived of their own trainer. Such extreme cases must probably be taken with a grain of salt, but they do underline the general principle that the relationship between elephant and mahout is the key to successful training.

The most economical age to capture an elephant for training is between fifteen and twenty years, for it is then almost ready to undertake heavy work and can begin to earn its keep straight away. But animals of this age do not easily become subservient to man, and a very firm hand must be employed in the early stages. The captive elephant, still

* **The Fens**, also known as the Fenland, is a geographic area in eastern England, in the United Kingdom. As noted on the map, the Fenland primarily lies around the coast of the The Wash; it reaches into 2 Government regions (East Anglia and the East Midlands), four modern counties (Lincolnshire, Cambridgeshire, Norfolk and a small area of Suffolk), and 11 District Councils. The whole contains an area of nearly 1,500 square miles or about 1 million acres.

roped to a tree, plunges and screams every time a man approaches, and for several days will probably refuse all food through anger and fear. Sometimes a tame elephant is tethered nearby to give the wild one confidence, and in most cases the captive gradually quietens down and begins to accept its food. The next stage is to get the elephant to the training establishment, a ticklish business which is achieved with the aid of two tame elephants roped to the captive on either side.

When several elephants are being trained at one time it is customary for the new arrival to be placed between the stalls of two captives whose training is already well advanced. It is then left completely undisturbed with plenty of food and water so that it can absorb the atmosphere of its new home and see that nothing particularly alarming is happening to its companions. When it is eating normally its own training begins. The trainer stands in front of the elephant holding a long stick with a sharp metal point. Two assistants, mounted on tame elephants, control the captive from either side, while others rub their hands over his skin to the accompaniment of a monotonous and soothing chant. This is supposed to induce pleasurable sensations in the elephant, and its effects are reinforced by the use of endearing epithets, such as 'ho! my son', or 'ho! my father', or 'my mother', according to the age and sex of the captive. The elephant is not immediately susceptible to such blandishments, however, and usually lashes fiercely with its trunk in all directions. These movements are controlled by the trainer with the metal-pointed stick, and the trunk eventually becomes so sore that the elephant curls it up and seldom afterwards uses it for offensive purposes.

RICHARD CARRINGTON *Elephants*

52

An earthquake comes like a thief in the night, without warning. It was necessary, therefore, to invent instruments that neither slumbered nor slept. Some devices were quite simple. One, for instance, consisted of rods of various lengths and thicknesses which would stand up on end like ninepins. When a shock came it shook the rigid table upon which these stood. If it were gentle, only the more unstable rods fell. If it were severe, they all fell. Thus the rods by falling, and by the direction in which they fell, recorded for the slumbering scientist the strength of a shock that was too weak to waken him and the direction from which it came.

But instruments far more delicate than that were needed if any really serious advance was to be made. The ideal to be aimed at was to devise an instrument that could record with a pen on paper the movements, of the ground or of the table, as the quake passed by. While I write my pen moves, but the paper keeps still. With practice, no doubt, I could in time learn to write by holding the pen still while the paper moved. That sounds a silly suggestion, but that was precisely the idea adopted in some of the early instruments (seismometers) for recording earthquake waves. But when table, penholder and paper are all moving how is it possible to write legibly? The key to a solution of that problem lay in an everyday observation. Why does a person standing in a bus or train tend to fall when a sudden start is made? It is because his feet move on, but his head stays still. A simple experiment will help us a little further. Tie a heavy weight at the end of a long piece of string. With the hand held high in the air hold the

strings so that the weight nearly touches the ground. Now move the hand to and fro and around but not up and down. It will be found that the weight moves but slightly or not at all. Imagine a pen attached to the weight in such a way that its point rests upon a piece of paper on the floor. Imagine an earthquake shock shaking the floor, the paper, you and your hand. In the midst of all this movement the weight and the pen would be still. But as the paper moved from side to side under the pen point its movement would be recorded in ink upon its surface. It was upon this principle that the first instruments were made, but the paper was wrapped round a drum which rotated slowly. As long as all was still the pen drew a straight line, but while the drum was being shaken the line that the pen was drawing wriggled from side to side. The apparatus thus described, however, records only the horizontal component of the wave movement, which is, in fact, much more complicated. If we could actually see the path described by a particle, such as a sand grain in the rock, it would be more like that of a bluebottle buzzing round the room; it would be up and down, to and fro and from side to side. Instruments have been devised and can be so placed that all three elements can be recorded in different graphs.

When the instrument is situated at more than 700 miles from the earthquake centre, the graphic record shows three waves arriving one after the other at short intervals. The first records the arrival of longitudinal vibrations. The second marks the arrival of transverse vibrations which travel more slowly and arrive several minutes after the first. These two have travelled through the earth. It was from the study of these that so much was learnt about the interior of the earth. The third, or main wave, is the slowest and has travelled round the earth through the surface rocks.

H. H. SWINNERTON *The Earth Beneath Us*

53

The French Foreign Legion was founded by a Royal Ordinance, written on a small piece of official French War Office notepaper dated March 9th, 1831, and signed by the then reigning monarch of France, Louis-Philippe. He had been on the throne for barely eight months when he authorized this measure, which was as much a product of necessity as of careful planning, although there may be divided views on this.

The reasons for forming the French Foreign Legion were probably twofold. In the first place the men of the disbanded royal bodyguard and the Regiment of Hohenlohe, suddenly turned loose on to the street of a capital seething with unrest, unemployed and perhaps disgruntled at their abrupt dismissal, were a potentially dangerous element. They were trained to the use of arms, and should they become tools of the politically ambitious or discontented they would present a distinct menace to the new regime, not yet too firmly established and sure of itself.

For some time Paris had been swarming with countless other discharged foreign soldiers who had served in the French army at various times under the Empire and the Republic, many of whom were in needy circumstances and open to suggestion, whilst others were openly looking for trouble and always ready to take part in any disturbance. It was clearly both expedient and desirable to remove these dangers as far away from the capital as possible.

Next, the Algerian adventure had begun, and it appeared that this might prove expensive in lives. The more Frenchmen killed in North Africa, the less popular the government at home would be, so if foreign cannon fodder was available so much the better. The Algerian landing had been viewed with mixed feelings in a politically divided France, but there does not seem to have been any marked indication on the part of the politicians that they were unanimous that the occupation should be abruptly terminated; most were wary and many apprehensive as to how the Algerian business would turn out.

The formation of a foreign legion seemed therefore to be an ideal method of killing these two birds with one stone. Once the conditions were made clear there does not seem to have been any serious opposition.

Marshal Soult* was reputed to be the man behind the scheme both for removing and using the unemployed foreign ex-soldiers. He could not have failed to recognize, once they were formed into disciplined units, how useful they would be, both for garrison duty and for active operations in Algeria, nor the fact that if their casualties were heavy or their conditions not of the best, there would be no embarrassing reaction for agitation in France on their behalf.

The Royal Ordinance decreed that there should be a legion formed of foreigners for service outside France, which was to be called the 'Foreign Legion' and it was to be part of the French army and under the control of the War Minister. It laid down that as far as possible companies should be composed of men of the same nationality or who spoke a common language. Algeria was not specifically mentioned but as it was the only scrap of foreign territory of any size possessed by France at that moment, there was no doubt as to the meaning of the phrase 'outside France'.

In the anxiety to get dubious, restless characters out of the country no questions were asked as to nationality, previous record or history, and no proof of identity was required. The name and particulars given by the recruit were accepted at face value and many gave *noms de guerre**, for understandable reasons. Thus the practice began, and the tradition started of 'asking no questions'. This tradition of guaranteeing anonymity began to develop quickly, although it was not until later that it was carried to the extreme of denying all knowledge of any individuals who were in its ranks and of refusing point blank to answer questions or to allow any outside contact with the legionnaires.

* Pseudonyms.

EDGAR O'BALANCE *The Story of the French Foreign Legion*

54

We must conclude from the work of those who have studied the origin of life, that given a planet only approximately like our own, life is almost certain to start. Of all the planets in our own solar system we are now pretty certain the Earth is the only one on which life can survive. Mars is too dry and poor in oxygen, Venus far too hot, and so is Mercury, and the outer planets have temperatures near absolute zero and hydrogen-

* **Nicolas Jean-de-Dieu Soult**, 1st Duc de Dalmatie (March 29, 1769 – November 26, 1851), the Hand of Iron, was a French general and statesman, named Marshal of the Empire in 1804. He was one of only six officers in French history to receive the distinction of Marshal General of France. He also served as Prime Minister of France three times.

dominated atmospheres. But other suns, stars as the astronomers call them, are bound to have planets like our own, and as the number of stars in the universe is so vast, this possibility becomes virtual certainty. There are one hundred thousand million stars in our own Milky Way alone, and then there are three thousand million other Milky Ways, or Galaxies, in the universe. So the number of stars that we know exist is estimated at about 300 million million million.

Although perhaps only 1 per cent of the life that has started somewhere will develop into highly complex and intelligent patterns, so vast is the number of planets that intelligent life is bound to be a natural part of the universe.

If then we are so certain that other intelligent life exists in the universe, why have we had no visitors from outer space yet? First of all, they may have come to this planet of ours thousands or millions of years ago, and found our then prevailing primitive state completely uninteresting to their own advanced knowledge. Professor Ronald Bracewell[*], a leading American radio-astronomer, argued in *Nature*[†] that such a superior civilization, on a visit to our own solar system, may have left an automatic messenger behind to await the possible awakening of an advanced civilization. Such a messenger, receiving our radio and television signals, might well re-transmit them back to its home-planet, although what impression any other civilization would thus get from us is best left unsaid.

But here we come up against the most difficult of all obstacles to contact with people on other planets—the astronomical distances which separate us. As a reasonable guess, they might, on an average, be 100 light years away. (A light year is the distance which light travels at 186,000 miles per second in one year, namely 6 million million miles.) Radio waves also travel at the speed of light, and assuming such an automatic messenger picked up our first broadcasts of the 1920's, the message to its home planet is barely halfway there. Similarly, our own present primitive chemical rockets, though good enough to orbit men, have no chance of transporting us to the nearest other star, four light years away, let alone distances of tens or hundreds of light years.

Fortunately, there is a 'uniquely rational way' for us to communicate with other intelligent beings, as Walter Sullivan[‡] has put it in his excellent recent book, *We are not alone*. This depends on the precise radio-frequency of the 21-cm wavelength, or 1420 megacycles per second. It is the natural frequency of emission of the hydrogen atoms in space and was discovered by us in 1951; it must be known to any kind of radio-astronomer in the universe.

Once the existence of this wave-length had been discovered, it was not long before its use as the uniquely recognizable broadcasting frequency for interstellar communication was suggested. Without something of this kind, searching for intelligences on other planets would be like trying to meet a friend in London without

[*] **Ronald Newbold Bracewell** AO (July 22, 1921 – August 12, 2007) was the Lewis M. Terman Professor of Electrical Engineering, Emeritus of the Space, Telecommunications and Radioscience Laboratory at Stanford University until his death on August 12, 2007.
[†] R. N. BRACEWELL (1978) Detecting nonsolar planets by spinning infrared interferometer, Nature, 274:780-781. Links: http://www.nature.com/nature/journal/v274/n5673/abs/274780a0.html, http://www.nature.com/nature/journal/v274/n5673/pdf/274780a0.pdf
[‡] **Walter Seager Sulilvan** Jr (born January 18, 1918, died March 19, 1996) was considered the "Dean" of Science Writers.[1] Sullivan spent most of his career as a science reporter for the New York Times. Over a 50 year career he covered all aspects of science: Antarctic expedictions, rocket launchings in the late 1950s, physics, chemistry, and geology. He wrote several well-received books including *Assault on the Unknown* about the geophysical year; *We are not alone*, a bestseller about the search for extra-terrestrial intelligence; *Continents in Motion; Black Holes: the Edge of the Space, the End of Time; and Landprints.*

a pre-arranged rendezvous and absurdly wandering the streets in the hope of a chance encounter.

ANTHONY MICHAELIS *Are there Strangers in Space?*
from *The Weekend Telegraph*

55

Custom has not been commonly regarded as a subject of any great moment. The inner workings of our own brains we feel to be uniquely worthy of investigation, but custom, we have a way of thinking, is behaviour at its most commonplace. As a matter of fact, it is the other way around. Traditional custom, taken the world over, is a mass of detailed behaviour more astonishing than what any one person can ever evolve in individual actions, no matter how aberrant. Yet that is a rather trivial aspect of the matter. The fact of first-rate importance is the predominant rôle that custom plays in experience and in belief, and the very great varieties it may manifest.

No man ever looks at the world with pristine eyes. He sees it edited by a definite set of customs and institutions and ways of thinking. Even in his philosophical probings he cannot go behind these stereotypes; his very concepts of the true and the false will still have reference to his particular traditional customs. John Dewey has said in all seriousness that the part played by custom in shaping the behaviour of the individual as over against any way in which he can affect traditional custom, is as the proportion of the total vocabulary of his mother tongue over against those words of his own baby talk that are taken up into the vernacular of his family. When one seriously studies the social orders that have had the opportunity to develop autonomously, the figure becomes no more than an exact and matter-of-fact observation. The life history of the individual is first and foremost an accommodation to the patterns and standards traditionally handed down in his community. From the moment of his birth the customs into which he is born shape his experience and behaviour. By the time he can talk, he is the little creature of his culture, and by the time he is grown and able to take part in its activities, its habits are his habits, its beliefs his beliefs, its impossibilities his impossibilities. Every child that is born into his group will share them with him, and no child born into one on the opposite side of the globe can ever achieve the thousandth part. There is no social problem it is more incumbent upon us to understand than this of the rôle of custom. Until we are intelligent as to its laws and varieties, the main complicating facts of human life must remain unintelligible.

The study of custom can be profitable only after certain preliminary propositions have been accepted, and some of these propositions have been violently opposed. In the first place any scientific study requires that there be no preferential weighting of one or another of the items in the series it selects for its consideration. In all the less controversial fields like the study of cacti or termites or the nature of nebulae, the necessary method of study is to group the relevant material and to take note of all possible variant forms and conditions. In this way we have learned all that we know of the laws of astronomy, or of the habits of the social insects, let us say. It is only in the study of man himself that the major social sciences have substituted the study of one local variation, that of Western civilization.

Anthropology was by definition impossible as long as these distinctions between ourselves and the primitive, ourselves and the barbarian, ourselves and the pagan, held sway over people's minds. It was necessary first to arrive at that degree of sophistication where we no longer set our own belief over against our neighbour's superstition. It was necessary to recognize that these institutions which are based on the same premises, let us say the supernatural, must be considered together, our own among the rest.

RUTH BENEDICT *Patterns of Culture*

56

Science and technology have come to pervade every aspect of our lives and, as a result, society is changing at a speed which is quite unprecedented. There is a great technological explosion around us, generated by science. This explosion is already freeing vast numbers of people from their traditional bondage to nature, and now at last we have it in our power to free mankind once and for all from the fear which is based on want. Now, for the first time, man can reasonably begin to think that life can be something more than a grim struggle for survival. But even today, in spite of the high standard of living which has become general in the more fortunate West, the majority of people in the world still spend nearly all their time and energy in a never-ending struggle with nature to secure the food and shelter they need. Even in this elementary effort millions of human beings each year die unnecessarily and wastefully from hunger, disease, or flood.

Yet, in the West, science and technology have made it possible for us to have a plentiful supply of food, produced by only a fraction of the labour that was necessary even a few decades ago. In the United States, for instance, one man on the land produces more than enough food to feed fifteen men in the cities, and, in fact, there is a surplus of food grown even by this small proportion of the American labour force. We have considerably extended our expectation of life. We have enriched our lives by creating physical mobility through the motor-car, the jet aeroplane, and other means of mechanical transport; and we have added to our intellectual mobility by the telephone, radio, and television. Not content with these advances, we are now thrusting forward to the stars, and the conquest of space no longer strikes us as Wellsian or Jules Vernian. And with the advent of the new phase of technology we call automation, we have the promise both of greater leisure and of even greater material and intellectual riches.

But this is not inevitable. It depends on automation being adequately exploited. We shall need to apply our scientific and technological resources to literally every aspect of our society, to our commerce, our industry, our medicine, our agriculture, our transportation.

It is fascinating and encouraging to observe the development of this immense process, a process in which man appears all the time to be engaged in the act of creating an extension of himself. In his new technological successes this appears particularly true. He is extending his eyes with radar; his tongue and his ear through telecommunication; his muscle and body structure through mechanization. He extends his own energies by the generation and transmission of power and his nervous

system and his thinking and decision-making faculties through automation. If this observation is accurate, as I believe it is, the implications are far-reaching. It might be reasonable to conclude that the direction of modern science and technology is towards the creation of a series of machine-systems based on man as a model.

LEON BAGRIT* *The Age of Automation* from *The Listener*

57

In man's early days, competition with other creatures must have been critical. But this phase of our development is now finished. Indeed, we lack practice and experience nowadays in dealing with primitive conditions. I am sure that, without modern weapons, I would make a very poor show of disputing the ownership of a cave with a bear, and in this I do not think that I stand alone. The last creature to compete with man was the mosquito. But even the mosquito has been subdued by attention to drainage and by chemical sprays.

Competition between ourselves, person against person, community against community, still persists, however; and it is as fierce as it ever was.

But the competition of man against man is not the simple process envisioned in biology. It is not a simple competition for a fixed amount of food determined by the physical environment, because the environment that determines our evolution is no longer essentially physical. Our environment is chiefly conditioned by the things we believe. Morocco and California are bits of the Earth in very similar latitudes, both on the west coasts of continents with similar climates, and probably with rather similar natural resources. Yet their present development is wholly different, not so much because of different people even, but because of the different thoughts that exist in the minds of their inhabitants. This is the point I wish to emphasize. The most important factor in our environment is the state of our own minds.

It is well known that where the white man has invaded a primitive culture the most destructive effects have come not from physical weapons but from ideas. Ideas are dangerous. The Holy Office knew this full well when it caused heretics to be burned in days gone by. Indeed, the concept of free speech only exists in our modem society because when you are inside a community you are conditioned by the conventions of the community to such a degree that it is very difficult to conceive of anything really destructive. It is only someone looking on from outside that can inject the dangerous thoughts. I do not doubt that it would be possible to inject ideas into the modern world that would utterly destroy us. I would like to give you an example, but fortunately I cannot do so. Perhaps it will suffice to mention the nuclear bomb. Imagine the effect on a reasonably advanced technological society, one that still does not possess the bomb, of making it aware of the possibility, of supplying sufficient details to enable the thing to be constructed. Twenty or thirty pages of information handed to any of the major world powers around the year 1925 would have been sufficient to change the course of world history. It is a strange thought, but I believe a correct one, that twenty or thirty pages of ideas and information would be capable of turning the present-day world upside down, or even destroying it. I have often tried to

* Sir Leon Bagrit (13 March 1902 – 22 April 1979) was a leading British industrialist and pioneer of automation.

conceive of what those pages might contain, but of course I cannot do so because I am a prisoner of the present-day world, just as all of you are. We cannot think outside the particular patterns that our brains are conditioned to, or, to be more accurate, we can think only a very little way outside, and then only if we are very original.

FRED HOYLE* *Of Man and Galaxies*

58

A gifted American psychologist has said, 'Worry is a spasm of the emotion; the mind catches hold of something and will not let it go.' It is useless to argue with the mind in this condition. The stronger the will, the more futile the task. One can only gently insinuate something else into its convulsive grasp. And if this something else is rightly chosen, if it is really attended by the illumination of another field of interest, gradually, and often quite swiftly, the old undue grip relaxes and the process of recuperation and repair begins.

The cultivation of a hobby and new forms of interest is therefore a policy of first importance to a public man. But this is not a business that can be undertaken in a day or swiftly improvised by a mere command of the will. The growth of alternative mental interests is a long process. The seeds must be carefully chosen; they must fall on good ground; they must be sedulously tended, if the vivifying fruits are to be at hand when needed.

To be really happy and really safe, one ought to have at least two or three hobbies, and they must all be real. It is no use starting late in life to say: 'I will take an interest in this or that.' Such an attempt only aggravates the strain of mental effort. A man may acquire great knowledge of topics unconnected with his daily work, and yet hardly get any benefit or relief. It is no use doing what you like, you have got to like what you do. Broadly speaking, human beings may be divided into three classes: those who are toiled to death, those who are worried to death, and those who are bored to death. It is no use offering the manual labourer, tired out with a hard week's sweat and effort, the chance of playing a game of football or baseball on Saturday afternoon. It is no use inviting the politician or the professional or business man, who has been working or worrying about serious things for six days, to work or worry about trifling things at the week-end.

As for the unfortunate people who can command everything they want, who can gratify every caprice and lay their hands on almost every object of desire—for them a new pleasure, a new excitement is only an additional satiation. In vain they rush frantically round from place to place, trying to escape from avenging boredom by mere clatter and motion. For them discipline in one form or another is the most hopeful path.

It may also be said that rational, industrious, useful human beings are divided into two classes: first, those whose work is work and whose pleasure is pleasure; and

* Sir Fred Hoyle FRS (24 June, 1915 – 20 August, 2001) was an English astronomer primarily remembered today for his contribution to the theory of stellar nucleosynthesis and his often controversial stance on other cosmological and scientific matters, in particular his rejection of the Big Bang theory. In addition to his work as an astronomer, Hoyle was a writer of science fiction, including a number of books co-authored with his son Geoffrey Hoyle. Hoyle spent most of his working life at the Institute of Astronomy at Cambridge and served as its director for a number of years.

secondly, those whose work and pleasure are one. Of these the former are the majority. They have their compensations. The long hours in the office or the factory bring with them as their reward, not only the means of sustenance, but a keen appetite for pleasure even in its simplest and most modest forms. But fortune's favoured children belong to the second class. Their life is a natural harmony. For them the working hours are never long enough. Each day is a holiday, and ordinary holidays when they come are grudged as enforced interruptions in an absorbing vocation. Yet to both classes the need of an alternative outlook, of a change of atmosphere, of a diversion of effort, is essential. Indeed, it may well be that those whose work is their pleasure are those who most need the means of banishing it at intervals from their minds.

WINSTON CHURCHILL* *Painting as a Pastime*

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Economy is one powerful motive for camping, since after the initial outlay upon equipment, or through hiring it, the total expense can be far less than the cost of hotels. But, contrary to a popular assumption, it is far from being the only one, or even the greatest. The man who manoeuvres carelessly into his five shillings worth of space at one of Europe's myriad permanent sites may find himself bumping a Bentley. More likely, Ford Consul will be hub to hub with Renault or Mercedes, but rarely with bicycles made for two.

That the equipment of modern camping becomes yearly more sophisticated is an entertaining paradox for the cynic, a brighter promise for the hopeful traveller who has sworn to get away from it all. It also provides—and some student sociologist might care to base his thesis upon the phenomenon—an escape of another kind. The modern traveller is often a man who dislikes the Splendide and the Bellavista, not because he cannot afford, or shuns, their material comforts, but because he is afraid of them. Affluent he may be, but he is by no means sure what to tip the doorman or the chambermaid. Master in his own house, he has little idea of when to say boo to a *maître d'hôtel*.*

From all such fears camping releases him. Granted, a snobbery of camping itself, based upon equipment and techniques, already exists, but it is of a kind that, if he meets it, he can readily understand and deal with. There is no superior 'they' in the shape of managements and hotel hierarchies to darken his holiday days.

To such motives, yet another must be added. The contemporary phenomenon of motor-car worship is to be explained not least by the sense of independence and freedom that ownership entails. To this pleasure camping gives an exquisite refinement.

From one's own front door to home or foreign hills or sands and back again, everything is to hand. Not only are the means of arriving at the holiday paradise entirely within one's own command and keeping, but the means of escape from

* Sir Winston Leonard Spencer Churchill (30 November 1874 – 24 January 1965) was a British politician known chiefly for his leadership of the United Kingdom during World War II. He served as Prime Minister from 1940 to 1945 and again from 1951 to 1955. A noted statesman and orator, Churchill was also an officer in the British Army, historian, writer, and artist. He is the only British Prime Minister who has ever received the Nobel Prize in Literature and the second person to be made an Honorary Citizen of the United States.

holiday hell (if the beach proves too crowded, the local weather too inclement) are there, outside—or, as likely, part of—the tent.

Idealists have objected to the practice of camping, as to the packaged tour, that the traveller abroad thereby denies himself the opportunity of getting to know the people of the country visited. Insularity and self-containment, it is argued, go hand in hand. The opinion does not survive experience of a popular Continental camping place. Holiday hotels tend to cater for one nationality of visitors especially, sometimes exclusively. Camping sites, by contrast, are highly cosmopolitan. Granted, a preponderance of Germans is a characteristic that seems common to most Mediterranean sites; but as yet there is no overwhelmingly specialized patronage. Notices forbidding the open-air drying of clothes, or the use of water points for car washing, or those inviting 'our camping friends' to a dance or a boat trip are printed not only in French or Italian or Spanish, but also in English, German and Dutch. At meal times the odour of sauerkraut vies with that of garlic. The Frenchman's breakfast coffee competes with the Englishman's bacon and eggs.

Whether the remarkable growth of organized camping means the eventual death of the more independent kind is hard to say. Municipalities naturally want to secure the campers' site fees and other custom. Police are wary of itinerants who cannot be traced to a recognized camp boundary or to four walls. But most probably it will all depend upon campers themselves: how many heath fires they cause; how much litter they leave; in short, whether or not they wholly alienate landowners and those who live in the countryside. Only good scouting is likely to preserve the freedoms so dear to the heart of the eternal Boy Scout*.

* Cp. The expression 'to say boo to a goose' meaning 'to surprise' or 'to frighten'.

NIGEL BUXTON† *The Great Escape* from *The Weekend Telegraph*

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Although truth and justice may be the most powerful impulses to show moral courage, there are others. Compassion is one of these. Tentatively it can be suggested that this is the main influence upon those who urge the abolition of capital punishment. It is recognition of compassion's part that leads the upholders of capital punishment to accuse the abolitionists of sentimentality in being more sorry for the murderer than for his victim. This is nonsense but with it some organs of the popular Press played upon the emotions of their readers so successfully that many candidates for Parliament were afraid to support abolition for fear of losing votes and the result was the muddle-headed Homicide Act of 1957‡ which made murder with robbery a capital crime and

* A Boy Scout is a boy, usually 11 to 18 years of age, participating in the worldwide Scouting movement. Because of the large age and development span, have many Scouting associations split this age group in a junior and a senior section. Boy Scouts are organized into troops averaging twenty to thirty Scouts under guidance of one or more Scout leaders. Troops subdivide into patrols of about six Scouts and engage in outdoor and special interest activities. Troops may affiliate with local, national and international organizations. Some national Scouting associations have special interest programs such as Air Scouts, Sea Scouts, outdoor high adventure, Scouting bands and rider scouts. Some troops, especially in Europe, have been co-educational since the 1970s, allowing boys and girls to work together as Scouts.

† Nigel Edward Buxton (born 1924) is a British travel writer and wine critic, although he is probably now better known for appearing as BaaadDad in the Channel 4 comedy series The Adam and Joe Show, which was written and presented by his son Adam Buxton along with Adam's friend Joe Cornish.

‡ The Homicide Act 1957 (5 & 6 Eliz.2 c.11) is an Act of the Parliament of the United Kingdom. It was enacted as a partial reform of the common law offence of murder in English law by abolishing the doctrine of constructive malice (except in limited circumstances), reforming the partial defence of provocation, and by introducing the partial defences of diminished responsibility and suicide pact. It restricted the use of the death penalty for murder.

allowed the poisoner to escape the gallows. That illogical qualification shows how flimsy is the argument that capital punishment is a deterrent to murder. The poisoner always works on a calculated plan of action and therefore is able to consider whether or not his taking another's life is worth the risk of his own; the violent thief is usually at the mercy of an instant emotion. The only arguable plea for capital punishment is the right of society to retribution in this world with the prospect of life in another, but since what used to seem to the great majority of civilized humanity the assurance of another life beyond the grave has come to seem to more and more people less certain, a feeling for the value of human life has become deeper and more widespread. This may seem a paradoxical claim to make at a time when mankind is so much preoccupied with weapons of destruction. Nevertheless, it is a claim that can be sustained and if compassion animates those who urge the abolition of the death penalty it is not a sentimental compassion for the mental agony inflicted upon a condemned man but a dread of destroying the miracle of life.

When in the eighteenth century offences against the law that today would not earn a month in prison were punished with the death penalty, the severity of the penal code had no serious effect on the prevalence of crime. When it made no difference to the fate of a highwayman whether he had killed his victim or merely robbed him of a few pieces of silver, there were no more murders then than there were when men like Sir Francis Burdett[*] succeeded in lightening the excessive severity of the penal laws. In those days the sacredness of life on earth was not greatly regarded because a life in the world to come was taken for granted except by a comparatively small minority of philosophers.

Nor was the long-drawn ordeal of the condemned cell inflicted either upon the condemned man or his gaolers once upon a time. Those who believe in capital punishment may have arguments for its retention, but surely no reasonable argument can be found for retention of the sickening mumbo-jumbo that accompanies it from the moment that the judge dons the black cap with what looks like a pen-wiper balanced on the top of his wig, to the reading of the burial service over the condemned man before he is dead. Moreover, it was more merciful to launch the condemned man into eternity twenty-four hours after he was sentenced than to keep him shivering on the brink of that dread gulf for nearly three weeks. Hanging is an atrociously archaic way of killing a human being and the self-satisfied modernity of the electric chair is just as atrocious. The administration of a strong sleeping draught to the condemned man every night from which one night he does hot awake, seems a more civilized alternative to our present barbarous procedure, if capital punishment through the influence of backward minds be retained.

COMPTON MACKENZIE[†] *On Moral Courage*

[*] **Sir Francis Burdett**, 5th Baronet (25 January 1770 – 23 January 1844) was an English reformist politician, the son of Francis Burdett by his wife Eleanor, daughter of William Jones of Ramsbury manor, Wiltshire, and grandson of Sir Robert Burdett, Bart. From 1820 until his death he lived at 25 St James Place.

[†] Sir Edward Montague Compton Mackenzie (17 January 1883, West Hartlepool, England – 30 November 1972, Edinburgh, Scotland) was an English-born Scottish novelist and nationalist.

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Lesson 8 | Trading standards

Chickens slaughtered in the United States, claim officials in Brussels, are not fit to grace European tables. No, say the Americans: our fowl are fine, we simply clean them in a different way. These days, it is differences in national regulations, far more than tariffs, that put sand in the wheels of trade between rich countries. It is not just farmers who are complaining. An electric razor that meets the European Union's safety standards must be approved by American testers before it can be sold in the United States, and an American-made dialysis machine needs the EU's okay before it hits the market in Europe.

As it happens, a razor that is safe in Europe is unlikely to electrocute Americans. So, ask businesses on both sides of the Atlantic, why have two lots of tests where one would do? Politicians agree, in principle, so America and the EU have been trying to reach a deal which would eliminate the need to double-test many products. They hope to finish in time for a trade summit between America and EU on May 28th. Although negotiators are optimistic, the details are complex enough that they may be hard-pressed to get a deal at all.

Why? One difficulty is to construct the agreements. The Americans would happily reach one accord on standards for medical devices and then hammer out different pacts covering, say, electronic goods and drug manufacturing. The EU-following fine continental traditions—wants agreement on general principles, which could be applied to many types of products and have extended to other countries.

Lesson 10 | Silicon Valley

Technology trends may push Silicon Valley back to the future. Carver Mead*, a pioneer in integrated circuits and a professor of computer science at the California Institute of Technology, notes there are now workstations that enable engineers to design, test and produce chips right on their desks, much the way an editor creates a newsletter on a Macintosh. As the time and cost of making a chip drip to a few days and a few hundred dollars, engineers may soon be free to let their imaginations soar without being penalized by expensive failures. Mead predicts that inventors will be able to perfect powerful customized chips over a weekend at the office—spawning a new generation of garage start-ups and giving the U.S. a jump on its foreign rivals in getting new products to market fast. 'We've got more garages with smart people,' Mead observes. 'We really thrive on anarchy.' And on Asians. Already, Orientals and Asian Americans constitute the majority of the engineering staffs at many Valley firms. And Chinese, Korean, Filipino and Indian engineers are graduating in droves from California's colleges. As the heads of next-generation start-ups, these Asian innovators can draw on customs and languages to forge tighter links with crucial Pacific Rim

* Professor **Carver Andress Mead** (born 1 May 1934, in Bakersfield, California) is a prominent U.S. computer scientist. He is the Gordon and Betty Moore professor emeritus at the California Institute of Technology (Caltech), having taught there for over 40 years.

market. For instance, Alex Au, a Stanford Ph.D. from Hong Kong, has set up a Taiwan factory to challenge Japan's near lock on the memory-chip market. India-born N. Damodar Reddy's tiny California company reopened an AT&T chip plant in Kansas City last spring with financing from the state of Missouri. Before it becomes a retirement village, Silicon Valley may prove a classroom for building a global business.

Lesson 14 | The Butterfly Effect

Beyond two or three days, the world's best weather forecasts are speculative, and beyond six or seven they are worthless. The Butterfly Effect* is the reason. For small pieces of weather—and to a global forecaster, small can mean thunderstorms and blizzards—any prediction deteriorates rapidly. Errors and uncertainties multiply, cascading upward through a chain of turbulent features, from dust devils and squalls up to continent-size eddies that only satellites can see.

The modern weather models work with a grid of points of the order of sixty miles apart, and even so, some starting data has to be guessed, since ground stations and satellites cannot see everywhere. But suppose the earth could be covered with sensors spaced one foot apart, rising at one-foot intervals all the way to the top of the atmosphere. Suppose every sensor gives perfectly acc rate readings of temperature, pressure, humidity, and any other quantity a meteorologist would want. Precisely at noon an infinitely powerful computer takes all the data and calculates what will happen at each point at 12.01, then 12.02, then 12.03…. The computer will still be unable to predict whether Princeton, New Jersey, will have sun or rain on a day one month away. At noon the spaces between the sensors will hide fluctuations that the computer will not know about, tiny deviations from the average. By 1.201, those fluctuations will already have created small errors one foot away. Soon the errors will have multiplied to the ten-foot scale, and so on up to the size of the globe.

Lesson 35 | Space Odyssey

The Moon is likely to become the industrial hub of the Solar System, supplying the rocket fuels for its ships, easily obtainable from the lunar rocks in the form of liquid oxygen. The reason lies in its gravity. Because the Moon has only an eightieth of the Earth's mass, it requires 97 percent less energy to travel the quarter of a million miles from the Moon to Earth-orbit than the 200 mile-journey from Earth's surface into orbit!

This may sound fantastic, but it is easily calculated. To escape from the Earth in a rocket, one must travel at seven miles per second. The comparable speed from the Moon is only 1.5 miles per second. Because the gravity on the Moon's surface is only a sixth of Earth's (remember how easily the Apollo astronauts bounded along), it takes much less energy to accelerate to that 1.5 miles per second than it does on Earth. Moon-dwellers will be able to fly in space at only three percent of the cost of similar journeys by their terrestrial cousins.

* The term "**butterfly effect**" itself is related to the work of Edward Lorenz, based in Chaos Theory and sensitive dependence on initial conditions, first described in the literature by Jacques Hadamard in 1890 and popularized by Pierre Duhem's 1906 book.

Arthur C. Clark* once suggested a revolutionary idea passes through three phases:
1. 'It's impossible—don't waste my time.'
2. 'It's possible, but not worth doing.'
3. 'I said it was a god idea all along.'
The idea of colonizing Mars—a world 160 times more distant than the Moon—will move decisively from the second phase to the third, when a significant number of people are living permanently in space. Mars has an extraordinary fascination for would—by voyagers. America, Russia and Europe are filled with enthusiasts—many of them serious and senior scientists—who dream of sending people to it. Their aim is understandable. It is the one world in the Solar System that is most like the Earth. It is a world of red sandy deserts(hence its name—the Red Planet), cloudless skies, savage sandstorms, chasms wider than the Grand Canyon and at least one mountain more than twice as tall as Everest. It seems ideal for settlement.

Lesson 38 | Water and the Traveler

Contamination of water supplies is usually due to poor sanitation close to water sources, sewage disposal into the sources themselves, leakage of sewage into distribution systems or contamination with industrial or farm waste. Even if a piped water supply is safe at its source, it is not always safe by the time it reaches the tap. Intermittent tap-water supplies should be regarded as particularly suspect. Travellers on short trips to areas with water supplies of uncertain quality should avoid drinking tap-water, or untreated water from any other source. It is best to keep to hot drinks, bottled or canned drinks of well-known brand names-international standards of water treatment are usually followed at bottling plants. Carbonated drinks are acidic, and slightly safer. Make sure that all bottles are opened in your presence, and that their rims are clean and dry. Boiling is always a good way of treating water. Some hotels supply boiled water on request and this can be used for drinking, or for brushing teeth. Portable boiling elements that can boil small quantities of water are useful when the right voltage of electricity is available. Refuse politely any cold drink from an unknown source. Ice is only as safe as the water from which it is made, and should not be put in drinks unless it is known to be safe. Drinks can be cooled by placing them on ice rather than adding ice to them. Alcohol may be a medical disinfectant, but should not be relied upon to sterilize water. Ethanol is more effective at a concentration of 50-70 percent; below 20 per cent, its bactericidal action is negligible. Spirits labeled 95 proof contain only about 47 per cent alcohol. Beware of methylated alcohol, which is very poisonous, and should never be added to drinking water. If no other safe water supply can be obtained, tap water that is too hot to touch can be left to cool and is generally safe to drink. Those planning a trip to remote areas, or intending to live in countries where drinking is not readily available, should know about the various possible methods for making water safe.

* Sir **Arthur Charles Clarke**, CBE (16 December 1917–19 March 2008) was a British science fiction author, inventor, and futurist, most famous for the novel *2001: A Space Odyssey*, written in collaboration with director Stanley Kubrick, a collaboration which led also to the film of the same name; and as a host and commentator in the British television series *Mysterious World*.

Lesson 40 | Waves

Waves are the children of the struggle between ocean and atmosphere, the ongoing signatures of infinity. Rays from the sun excite and energize the atmosphere of the earth, awakening it to flow, to movement, to rhythm, to life. The wind then speaks the message of the sun to the sea and the sea transmits it on through waves—and ancient, exquisite, powerful message.

These ocean waves are among the earth's most complicated natural phenomena. The basic features include a crest (the highest point of the wave), a trough (the lowest point), a height (the vertical distance from the trough to the crest), a wave length (the horizontal distance between two wave crests), and a period (which is the time it takes a wave crest to travel one wave length). Although an ocean wave gives the impression of a wall of water moving in your direction, in actuality waves move through the water leaving the water about where it was. If the water was moving with the wave, the ocean and everything on it would be racing in to the shore with obviously catastrophic results. An ocean wave passing through deep water causes a particle on the surface to move in a roughly circular orbit, drawing the particle first towards the advancing wave, then up into the wave, then forward with it and then—as the wave leaves the particles behind—back to its starting point again. From both maturity to death, a wave is subject to the same laws as any other 'living' thing. For a time it assumes a miraculous individuality that, in the end, is reabsorbed into the great ocean of life. The undulating waves of the open sea are generated by three natural causes: wind, earth movements of tremors, and the gravitational pull of the moon and the sun. Once waves have bean generated, gravity is the force that drives them in a continual attempt to restore the ocean surface to a flat plain.

Lesson 48 | Planning a share portfolio

There is no shortage of tipsters around offering 'get-rich-quick' opportunities. But if you are a serious private investor, leave the Las Vegas mentality to those with money to fritter. The serious investor needs a proper 'portfolio'—a well-planned selection of investments, with a definite structure and a clear aim. But exactly how does a newcomer to the stock market go about achieving that?

Well, if you go to five reputable stock brokers and ask them what you should do with your money, you're likely to get five different answers,—even if you give all the relevant information about your age, family, finances and what you want from your investments. Moral? There is no one 'right' way to structure a portfolio. However, there are undoubtedly some wrong ways, and you can be sure that none of our five advisers would have suggested sinking all (or perhaps any) of your money into Periwigs*.

So what should you do? We'll assume that you have sorted out the basics—like mortgages, pensions, insurance and access to sufficient cash reserves. You should then establish your own individual aims. These are partly a matter of personal circumstances, partly a matter of psychology.

For instance, if you are older you have less time to recover from any major losses, and you may well wish to boost your pension income. So preserving your capital and generating extra income are your main priorities. In this case, you'd probably construct a portfolio with some shares (but not high risk ones), along with gilts, cash deposits, and perhaps convertibles or the income shares of split capital investment trusts.

If you are younger, and in a solid financial position, you may decide to take an aggressive approach—but only if you're blessed with a sanguine disposition and won't suffer sleepless nights over share prices. If portfolio, alongside your more pedestrian in vestments. Once you have decided on your investment aims, you can then decide where to put your money. The golden rule here is spread your risk—if you put all of your money into Periwigs International, you're setting yourself up as a hostage to fortune.

*'Periwigs' is the name of a fictitious company.

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