

Academic Reading Paper 32

Rivers, Ozone and Translation

Time allowed: 1 hour

INSTRUCTIONS TO CANDIDATES

- Do not open this booklet until you are told to do so.
- Write your name and the date at the top of the answer sheet.
- Answer **all** the questions.
- Write your answers **on the answer sheet**, not in this booklet.
- You must transfer your answers within the hour. **No extra time is given for transferring answers in the Reading test.**
- Do not remove this booklet from the examination room.

INFORMATION FOR CANDIDATES

- There are 40 questions in this paper.
- Each question carries one mark.
- There are three passages, with 13, 13 and 14 questions.

These passages were written for this library. They are **not** reproduced from any published past paper. The format, timing and task types follow the published specification for the Academic Reading test so that sitting this on paper feels like the real thing.

You should spend about 20 minutes on Questions 1–13, which are based on Reading Passage 1 below.

Not an accident

The Aral Sea was the fourth-largest lake on the planet, some sixty-eight thousand square kilometres of water in the middle of a desert, and it existed on a knife edge. It had no outflow. Two rivers, the Amu Darya and the Syr Darya, brought water down from the mountains, and evaporation took away almost exactly as much as they delivered. A lake in that position is not a body of water so much as a balance, and anything that reduces the inflow does not lower it a little. It removes the sea, and it does so on a schedule that can be calculated in advance from the arithmetic of inflow and evaporation.

From the early 1960s the Soviet Union diverted both rivers to irrigate cotton across Uzbekistan, Turkmenistan and Kazakhstan. The largest of the works, the Karakum Canal, runs about thirteen hundred and seventy-five kilometres across the desert, and much of it was cut into sand and left unlined, so that a substantial share of the water it carried soaked away or evaporated before it reached a field. The cotton succeeded, and it is important to say so, because an account in which the scheme simply failed leaves out why it was defended. The Soviet Union became one of the world's principal exporters of it, and the economies built on that crop are still there and still employ people.

The part of this that is usually got wrong is the intention. It is generally told as a catastrophe of incompetence, a system so clumsy that it destroyed a sea without noticing. The planning documents say otherwise. The evaporation of the Aral was described in them as a waste of water, a mistake of nature to be corrected, and the disappearance of the sea was set against the value of the cotton and judged to be worth it. Nobody was surprised. A choice was made, it was written down, and it was carried out, and the only thing the planners got badly wrong was how much of the water would reach a field.

What followed happened at the pace such things happen, which is to say over a working lifetime rather than overnight. By 1987 the water had fallen far enough to split the sea in two, leaving a northern lake fed by the Syr Darya and a southern one fed by what was left of the Amu Darya. The southern basin went on shrinking and its eastern half dried out completely in 2014. Taken together the sea lost about ninety per cent of its volume.

Concentrating salt is what a shrinking closed lake does, since the salt stays and the water leaves. Salinity rose from around ten grams a litre to more than a hundred in places, which is roughly three times the sea. All twenty-four native fish species disappeared from the southern basin, and a fishery that had employed something in the order of forty thousand people ended. The port of Moynaq, which had harbours and a cannery, now stands about a hundred kilometres from any water, with the rusted hulls of its fishing fleet standing on the sand outside it.

The exposed bed is the part that keeps causing damage. Some sixty thousand square kilometres of former sea floor are now a salt desert, and the salt is mixed with decades of fertiliser and pesticide residue delivered by the same rivers. Wind lifts it. Dust storms carry the material hundreds of kilometres, salting

farmland downwind and depositing it on people, and rates of respiratory illness and of certain cancers in the region are among the highest recorded in the former Soviet Union.

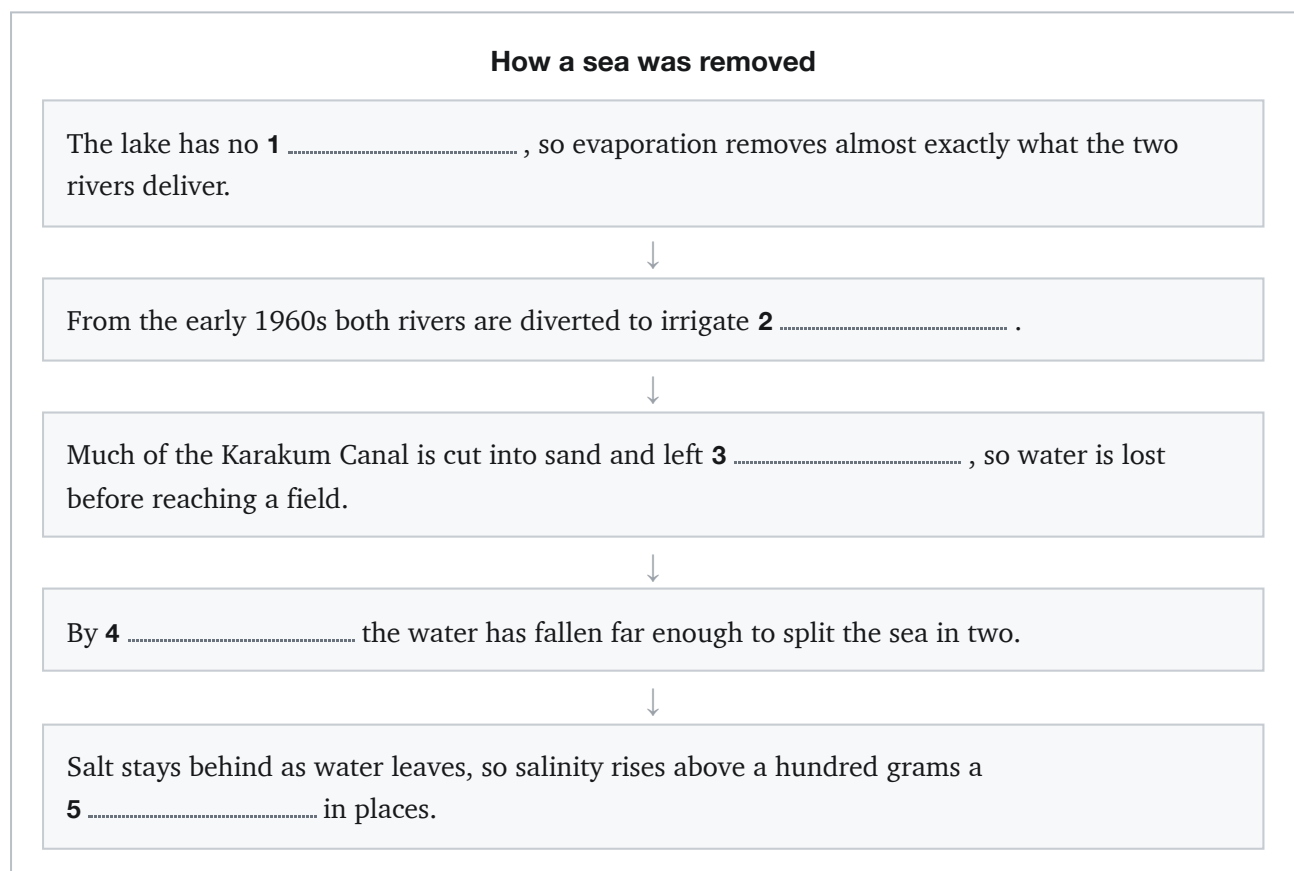
Then something happened that is left out of most accounts of this, because it does not fit the shape of the story. In 2005 Kazakhstan completed a dyke about thirteen kilometres long across the channel joining the two basins, holding the Syr Darya's water in the northern lake instead of letting it run south into the salt. The level rose several metres within two years, faster than the engineers had projected. Salinity fell. Fish that had been gone for decades were caught again, and a fishing industry restarted.

The northern lake is the important result, and not because it is large, since it is a fraction of what was lost. It is important because it shows what kind of failure this was. The sea had not been poisoned or broken. It had been starved, and where the water was given back it returned, on a timescale of years rather than centuries. The southern basin was not saved because the cotton upstream of it was not given up, which is the same decision as the one taken in the 1960s, taken again by different people, in a different country, for reasons they would describe differently.

Questions 1–5

Complete the flow-chart below.

Choose **NO MORE THAN TWO WORDS AND/OR A NUMBER** from the passage for each answer.



Questions 6–9

Complete the sentences below.

Choose **NO MORE THAN TWO WORDS AND/OR A NUMBER** from the passage for each answer.

- 6 The Aral was the -largest lake on the planet.
- 7 A fishery employing about forty thousand people ended when all twenty-four native disappeared from the southern basin.
- 8 The exposed bed covers some sixty thousand square kilometres and its salt is mixed with fertiliser and residue.
- 9 The dyke completed in 2005 is about kilometres long.

Questions 10–13

Do the following statements agree with the information given in Reading Passage 1?

Write **TRUE** if the statement agrees with the information, **FALSE** if the statement contradicts the information, or **NOT GIVEN** if there is no information on this.

- 10 The loss of the sea was anticipated by those who ordered the diversions.
- 11 The cotton scheme failed to produce the crop it was intended to produce.
- 12 Fish caught in the northern lake are sold abroad.
- 13 The water level in the northern lake rose more slowly than the engineers had expected.

You should spend about 20 minutes on Questions 14–26, which are based on Reading Passage 2 below.

The measurement that was thrown away

- A** In 1974 Mario Molina and F. Sherwood Rowland published an argument that was entirely theoretical and turned out to be right. Chlorofluorocarbons, the gases used in refrigerators and aerosol cans, are extremely stable, which is why they were adopted: they do not burn, react or poison anybody. Being stable, they are not removed from the lower atmosphere by anything, and over decades they drift up into the stratosphere, where ultraviolet light strong enough to break them apart is available. The chlorine released is a catalyst, and a catalyst is not consumed, so a single atom can destroy ozone molecules by the thousand before it is finally locked up in some other compound. The whole argument rests on that ratio; without it, the quantities involved would be far too small to matter.
- B** The response from the industry was what the response usually is. The argument was called speculative, the chemistry was called unproven, and the head of one of the manufacturers described the whole thing publicly as a science fiction tale. This was not entirely unreasonable, and it is worth granting the point rather than treating everybody on that side as dishonest: the calculation predicted a slow global thinning of a few per cent over many decades, which is a hard thing to detect against natural variation and a harder thing to legislate against. A prediction of a few per cent over fifty years is exactly the shape of claim that can be argued about indefinitely.
- C** Nobody predicted what was actually found, and it was found by a man with an old instrument and a long record. Joe Farman had been measuring the total ozone above Halley Bay in Antarctica since 1957, using a Dobson spectrophotometer, a device that compares the strength of two ultraviolet wavelengths in the sky. From the early 1980s his October readings started coming out low. They kept getting lower. He concluded that his instrument was failing, which after twenty-five years in Antarctic conditions was the sensible conclusion, and obtained a new one. The new one gave the same numbers. That is the moment the discovery was made, and it consisted of somebody declining to believe his own most comfortable explanation.
- D** He published in 1985 with Brian Gardiner and Jonathan Shanklin, reporting that spring ozone above Antarctica had fallen by around forty per cent. That is not a thinning. It is a hole, seasonal and enormous, and no model had produced anything like it, including the models built by the people who had predicted that CFCs would damage the ozone layer at all.
- E** The most instructive part of the episode is what the satellites had been doing. An American satellite had been measuring atmospheric ozone globally since 1978 and had recorded the whole thing. The processing software, however, had been written with a range of plausible values built into it, and readings below that range were flagged as instrument error and set aside rather than reported. Nobody had done anything improper. Somebody had reasonably decided in advance what a possible measurement looked like, on the basis of everything then known, and the atmosphere had then

done something outside that range. The filter was doing exactly what it had been built to do. When the raw data were reprocessed after the 1985 paper, the hole was there in the record, several years deep.

- F** The chemistry had to be revised as well, because gas-phase reactions alone could not produce a loss of that size and speed. Susan Solomon proposed that the missing element was the polar stratospheric clouds that form only in the extreme cold of the Antarctic winter, on whose ice surfaces chlorine held in inactive compounds is converted into forms that attack ozone the moment sunlight returns in spring. She led expeditions to Antarctica in 1986 and 1987 that measured the predicted chemicals and found them in the predicted quantities, which is about as direct a confirmation as atmospheric chemistry offers.
- G** The Montreal Protocol was agreed in 1987 and has since been ratified by every member of the United Nations, which no other treaty has managed. Production of the controlled substances has fallen by more than ninety-nine per cent, and the hole is now measurably smaller than at its worst, though the year-to-year variation is large enough that no single season proves anything, and it is expected to take until the middle of this century to close. The episode is generally offered as a straightforward success, and it mostly was. It is worth adding that several of the replacement gases turned out to be extremely powerful contributors to warming, which required a further amendment in 2016, and that the recovery is slow enough that most of the people who argued about it will not see the end of it.

Questions 14–18

Reading Passage 2 has seven sections, A–G.

Which section contains the following information?

Write the correct letter, A–G.

NB You may use any letter more than once.

- 14** a concession that the opposing case was not unreasonable
- 15** a note that the discovery consisted of refusing an easy explanation
- 16** an observation that even the people who predicted damage had not predicted this
- 17** a statement that nothing improper had been done
- 18** a qualification about how long the outcome will take to be seen

Questions 19–22

Look at the following contributions and the list of people below.

Match each contribution with the correct person, A–C.

NB You may use any letter more than once.

List of People

- A** Molina and Rowland
- B** Joe Farman
- C** Susan Solomon

- 19** They argued from chemistry alone, before any measurement existed.
- 20** He replaced his equipment because he assumed it had failed.
- 21** She identified the role of ice particles forming in extreme cold.
- 22** He worked with the same kind of instrument for decades.

Questions 23–26

Complete the summary using the list of words, A–H, below.

List of Words

- A** catalyst
- B** reservoir
- C** stable
- D** range
- E** filter
- F** thinning
- G** hole
- H** clouds

How it was missed

CFCs were adopted precisely because they are **23**, and being so they survive long enough to reach the stratosphere, where the chlorine released acts as a **24** The theory predicted a slow global **25** rather than what was found. The satellite record contained the evidence all along, but the processing software had a plausible **26** of values built into it, so the readings were set aside.

You should spend about 20 minutes on Questions 27–40, which are based on Reading Passage 3 below.

Why translations age

An original does not date in the way a translation dates. A Greek poem written twenty-eight centuries ago is as old today as it was fifty years ago and no older, in the sense that the distance between it and its reader was already vast and has grown by a rounding error. A translation of that poem made in 1870 is now a Victorian document. It has acquired a period, a set of assumptions about what poetry sounds like, and a vocabulary that has moved, and it has acquired all of that while the original sat unchanged. This is why every generation retranslates, and it is not a criticism of anybody's predecessor, any more than replacing a worn rope is a criticism of the person who fitted it.

The reason is structural rather than a matter of skill. The original was written in its author's present, and the reader has always been outside that present, so the strangeness is expected and is part of what is being read. A translation is written in the translator's present, and it addresses a reader assumed to be standing in the same place. When that present moves on, the translation is left holding a position that nobody occupies any more, and the effect is not archaism, which can be dignified, but a slight and persistent wrongness of tone.

Two standard positions on translation both miss this. The first says a translation should be invisible: the reader should feel they are reading the original, and the translator's job is to leave no fingerprints. The second says translation is strictly impossible, since no two languages carve the world identically, so what is produced is a new work wearing a borrowed name. The first is an unreachable ideal that produces bland prose when pursued. The second is true in a way that makes no difference, since the practical question is never whether a perfect translation exists but which of several imperfect ones to publish.

What is missing from both is that fidelity is not a single quantity. A translator can be faithful to the sense, to the sound, to the register, to the cultural position the text occupied, or to the effect on a reader, and these pull against each other constantly. A joke that works by rhyme can be rendered accurately as a sentence that is no longer funny, which is faithful to the words and unfaithful to the text. Choosing among the kinds of fidelity is the work. Anybody who says a translation is inaccurate without saying to what is not making a criticism.

This is why several translations of the same book can all be good and can differ enormously. A version that reproduces the rhythm will lose exactness; a version that pins every term will read as a document rather than a poem; a version that reproduces the effect on the original audience may have to change the surface entirely, since a reference every ancient reader recognised is a footnote to a modern one. These are not degrees of success along one axis. They are different books, and a serious reader benefits from more than one.

The concession is that some translations last, and the reasons are worth noting because they are not the obvious ones. Those that survive are frequently not the most accurate. They are the ones whose language was slightly out of fashion when they were made, so that they were never anchored to a present that could recede, or the ones that became the source of an idiom in the receiving language, so that the translation shaped the vocabulary that would otherwise have dated it. Being slightly odd on arrival turns out to be a strategy for lasting.

None of this makes retranslation automatic or always welcome. A new version made only because the previous one is old, without a view about what the earlier translators sacrificed and why, has nothing to offer beyond currency, and currency expires. The good ones are argued for: this text has been read as a philosophical treatise and I am reading it as a poem, this speaker has always been rendered as formal and I think he is being rude.

So the useful way to read a translation is with the question of fidelity made specific. Which kind was chosen, what was given up for it, and who was the reader the translator had in mind. That reader is the part that ages, faster than the vocabulary and much faster than the original. It is why a shelf holding the same book in six versions is a record of six audiences rather than six attempts at a single job, and why the newest of them is not automatically the one to buy.

Questions 27–32

Do the following statements agree with the claims of the writer in Reading Passage 3?

Write **YES** if the statement agrees with the claims of the writer, **NO** if the statement contradicts the claims of the writer, or **NOT GIVEN** if it is impossible to say what the writer thinks about this.

- 27** The writer thinks a new translation is worth making simply because the last one is old.
- 28** The writer accepts that no two languages divide the world in the same way.
- 29** Most readers own more than one translation of the same book.
- 30** The writer believes the translations that last are the most accurate ones.
- 31** The writer holds that an accurate rendering can still be unfaithful to a text.
- 32** Poetry is harder to translate than prose.

Questions 33–36

Complete each sentence with the correct ending, A–G, below.

Endings

- A the distance between it and its reader was already vast.
- B it addresses a reader assumed to be standing in the translator's present.
- C they were never anchored to a present that could recede.
- D the surface may have to be changed entirely.
- E the translator has failed to consult the original.
- F modern readers prefer shorter sentences.
- G every generation produces more accurate scholarship.

- 33 An original does not date, because
- 34 A translation dates, because
- 35 To reproduce the effect on the original audience,
- 36 Translations that survive often do so because

Questions 37–40

Choose the correct letter, A, B, C or D.

- 37 What does the passage say about the claim that a translation should be invisible?
- A It is the only defensible aim.
 - B It is an unreachable ideal that produces bland prose when pursued.
 - C It applies only to poetry.
 - D It was abandoned in the nineteenth century.
- 38 Which position does the writer reject?
- A That several translations of one book can all be good.
 - B That fidelity has more than one kind.
 - C That calling a translation inaccurate is a criticism on its own.
 - D That a new version should be argued for.
- 39 According to the passage, what happens to a reference that every ancient reader recognised?
- A It is left out of modern versions.
 - B It becomes a footnote to a modern reader.
 - C It is the easiest part to translate.
 - D It proves the impossibility of translation.

- 40** Which of the following best expresses the writer's advice to a reader?
- A** Ask which kind of fidelity was chosen, what was given up, and who the intended reader was.
 - B** Always choose the most recent translation.
 - C** Read only in the original language.
 - D** Avoid translations of poetry.