

What the Water Kept

A valley dug out a fortune and left behind lakes nobody planned.

7 min read

Before you read

- **alluvial** — carried and deposited by moving water
- **dredge** — a large floating machine that digs up the ground beneath it
- **derelict** — abandoned and left to fall into disrepair
- **legacy** — what an activity leaves behind long after it stops
- **sediment** — fine material that settles out of still water
- **reclaim** — to bring damaged or unused land back into use
- **viable** — workable in practice, not only in theory
- **improvised** — put together from whatever was available

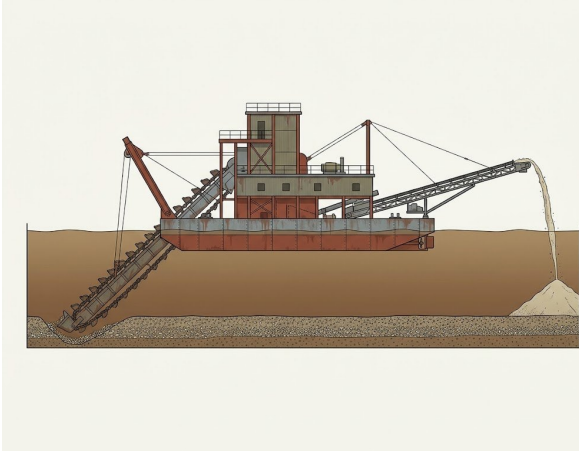


A former tin-mining pool in the Kinta Valley, with limestone hills beyond

¹ Nadia's geography project was supposed to take a weekend. Map the lakes within five kilometres of the house, label them, write four hundred words. She opened the satellite view, zoomed out once, and stopped.

² The land around her was perforated. Pools of water sat in the green in every direction, hundreds of them, in shapes no river had ever made — rectangles, long fingers, rough ovals with squared-off ends. Some were the size of a swimming pool. One was larger than her school.

³ “Those aren’t lakes,” her grandfather said, looking over her shoulder. “Those are holes. We made them.”



A floating dredge of the kind that worked the valley until the 1980s

⁴ The Kinta Valley, in the Malaysian state of Perak, was once among the richest tin-producing regions on Earth. The tin was alluvial: not locked in hard rock but carried down from the hills over millions of years and scattered through the gravel beneath the valley floor. That mattered enormously. Hard-rock mining needs capital, tunnels and engineers. Alluvial tin needs water, muscle and permission.

⁵ So the valley was dug — first by hand and by hydraulic jets that washed whole hillsides into sluices, and later by dredges, floating machines the size of buildings that chewed through the ground beneath themselves and sat in the pond they had just created. Her grandfather had worked on a gravel pump operation from the age of sixteen.

⁶ Then, in the mid-1980s, the international tin price collapsed. Mines that had been profitable on Friday were not profitable on Monday. Within a few years the dredges stopped, the pumps stopped, and the workers went to the cities. What stayed were the holes, and the holes filled with water.

⁷ Nobody agrees on how many there are. Counts differ depending on what you are willing to call a pool, and the satellite images do not distinguish a flooded mine from a pond that was always a pond. The legacy is simply there — thousands of hectares of ground that was dug, drained of its value and left.

⁸ “Derelict land” was the official phrase for decades, and it carried a clear implication: this is a problem. The soil left behind is largely sand and sediment, low in nutrients and poor at holding water. Many of the pools are deep, steep-sided and dangerous. For a long time the only plan anyone had was to fill them in, which nobody could afford to do at that scale.

⁹ What happened instead is more interesting than a plan. People found uses. The deep pools turned out to be good for freshwater fish farming, and cages went in. Shallower ones were planted with lotus, which does not mind poor soil and sells well. Some became recreational lakes with paddle boats and food stalls on the bank. In recent years, some of the larger water bodies have been fitted with floating solar panels — flat, unshaded, unwanted surface being exactly what a solar farm requires.

¹⁰ None of this was designed. It was improvised, over forty years, by people working out what a hole full of water could be made to do. The valley was not restored to what it had been before the mining; that was

never viable. It was reclaimed into something else, in pieces, by whoever got there first.

¹¹ Nadia's grandfather could still name the pools by their mines. The satellite images had no names at all, only shapes. She ended up handing in nine hundred words instead of four hundred, with two maps: the one the software produced, and one she drew herself with his names written on it.

¹² "People think we left a mess," he told her. "We left a mess. But we also left water in a place that didn't have much. Nobody planned that either."

Part A Choose the best answer

Circle the letter next to the right answer.

1. Why was the tin in the Kinta Valley relatively easy to extract?
 - A It lay in alluvial gravel rather than inside hard rock
 - B It was found in large single pieces near the surface
 - C The limestone hills could be washed away cheaply
 - D The valley had a ready supply of trained engineers
2. What caused the mining in the valley to stop?
 - A The tin in the valley was completely used up
 - B New laws banned the use of dredges
 - C The international price of tin collapsed in the mid-1980s
 - D The pools flooded and the machines could not work
3. Which of these is given as a reason the pools were called a problem?
 - A The water was too shallow for any use
 - B The soil left behind is sandy and low in nutrients
 - C The pools were too far from any town
 - D The land legally belonged to no one
4. What does the passage say about the new uses of the pools?
 - A They followed a government restoration plan
 - B They were improvised over decades by different people
 - C They were all introduced at the same time
 - D They returned the valley to its original state
5. Why are the flooded pools suitable for floating solar panels?
 - A The water keeps the panels permanently cool
 - B They are flat, unshaded surfaces nobody else wants
 - C The sediment reflects extra light upwards
 - D They sit close to the limestone hills

Part B Write your answer

Answer in three or four sentences, using evidence from the passage.

6. Explain the difference between restoring the valley and reclaiming it, as the passage uses those two ideas.

7. The grandfather says: “We left a mess. But we also left water in a place that didn’t have much.” Explain what he means and why the writer gives him the last word.

8. Nadia hands in two maps — the software’s and her own. What does the passage suggest the second map contains that the first cannot?

Part C Think deeper

There is no single right answer here. Take a position and justify it.

9. An industry that leaves damaged land behind has usually long since paid its workers and closed. Who, if anyone, should be responsible for the repair decades later? Argue your position and name its weakest point.

10. The valley's second life happened without a plan. Is improvisation a reliable way to solve a problem of this size, or did it only appear to work? Use evidence from the passage.

Answer key

For parents and teachers

Part A

1. A | 2. C | 3. B | 4. B | 5. B

Part B

6. Restoring would mean returning the valley to its pre-mining condition, which the passage says was never viable. Reclaiming means putting the altered land to some new productive use — fish farming, lotus, recreation, solar — accepting that it will not be what it was. Credit answers that grasp that reclamation accepts the change rather than reversing it.

7. He acknowledges the damage honestly while pointing out an unintended benefit: water in a landscape that was short of it. Giving him the last word leaves the reader with complication rather than a verdict. Accept any answer noting that the quotation refuses to settle on either blame or praise.

8. The satellite map shows shape and position; her grandfather's map carries names, history and the memory of what each pool used to be. Strong answers name the difference between data and knowledge, or between a record and a memory.

Part C

These answers vary. Mark the reasoning, not the answer.

9. Mark the reasoning. Strong answers consider the mining companies, the state, the current landowners or the beneficiaries of the tin wealth, and then identify the real weakness — usually that the companies no longer exist, or that the cost would fall on people who gained nothing. Weak answers assign blame without addressing practicality.

10. A strong answer uses specifics: improvisation produced real uses (aquaculture, lotus, solar) but took forty years, left dangerous pools unaddressed and depended on luck of location. Accept either verdict if it is evidenced.

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