

How the world's longest underwater tunnel was built - Alex Gendler

Flanked by two powerful nations, the English Channel has long been one of the world's most important maritime passages. Yet for most of its history, crossing was a dangerous prospect. Engineers proposed numerous plans for spanning the gap, including a design for an underwater passage more than twice the length of any existing tunnel. Alex Gendler details the creation of the Channel Tunnel.

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1. What was one of the reasons why the crossing of the English Channel was considered risky in the past?

a. The rough weather conditions

- b. The presence of artificial islands
- c. The construction of underwater bridges
- d. The existence of a submarine passage

2. What changed in the late 18th century that made the idea of a tunnel under the English Channel more feasible?

- a. The discovery of a stable layer of limestone

b. The development of underwater tunneling technology

- c. The resolution of economic problems
- d. The improvement of communication between France and England

3. What initially prevented the construction of the Channel Tunnel?

- a. Geological instability

b. Military concerns

- c. Lack of funding
- d. Political disagreements

4. How was the construction of the Channel Tunnel funded?

a. Private financing from French and British companies

- b. Government grants from France and England
- c. Donations from international organizations
- d. Crowdfunding from the public

5. How many separate tunnels were included in the Channel Tunnel project?

- a. 1
- b. 2
- c. 3**
- d. 4

6. What were the purposes of the three separate tunnels in the Channel Tunnel project?

a. Passenger trains, freight trains, and a service tunnel

- b. Passenger trains, car transportation, and a maintenance tunnel
- c. Freight trains, car transportation, and an emergency exit tunnel
- d. Passenger trains, maintenance equipment, and an emergency evacuation tunnel

7. What challenges did the engineers face while excavating the Channel Tunnel?

a. Water infiltration and unstable rock formations

- b. Lack of proper tools and machinery
- c. Lack of coordination between French and British teams
- d. Political opposition and public protests

8. How did the engineers deal with the water infiltration during the excavation?

a. Using waterproof drilling machines

- b. Filling the cracks with concrete
- c. Utilizing satellite technology for locating the fissures
- d. Employing paleontologists to study the geological formations

9. What were the coordinates accuracy requirements for the tunnel excavation?

- a. Within 5 centimeters
- b. Within 10 centimeters
- c. Within 2 centimeters**
- d. Within 1 centimeter

10. How many years did it take to complete the construction of the Channel Tunnel?

- a. 5 years
- b. 8 years**
- c. 10 years
- d. 13 years