

Will Vesuvius erupt again?

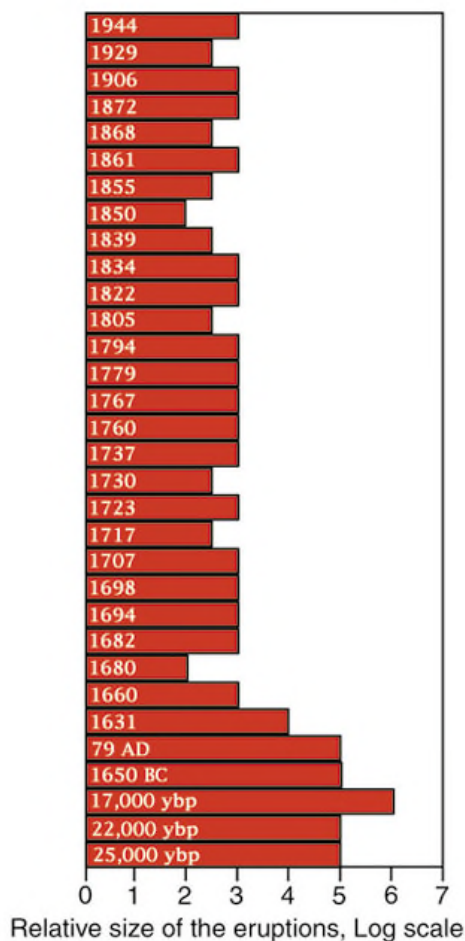
Living in the shadow of Italy's volcanoes

Mount Vesuvius started to erupt about 25,000 years ago. Since then its numerous eruptions of lava, ash and pyroclastic flows have built up the familiar conical volcano that now rises to 1281m above sea level.

Look at Figure 1 below. Notice that the early eruptions were larger and much more violent than the eruptions that have occurred during the last few centuries. The eruption of 79AD which destroyed Pompeii and Herculaneum was one of these early violent eruptions. Notice too that the recent smaller eruptions have occurred much more frequently than the earlier larger and more violent eruptions. The last eruption was in 1944.

Figure 1

Historic eruptions of Vesuvius



(ybp= years before present)

image source: <http://www.gso.uri.edu/vesuvius/Vesuvius/Vesu.html>

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Questions

1. Complete the following table calculating the time gaps between the first ten eruptions.

Eruption date	Eruption date	Time gap
1 st 25,000 ybp	2 nd 22,000 ybp	
2 nd 22,000 ybp	3 rd 17,000 ybp	
3 rd 17,000 ybp	4 th 1650 BC	
4 th 1650 BC	5 th 79AD	
5 th 79AD	6 th 1631	
6 th 1631	7 th 1660	
7 th 1660	8 th 1680	
8 th 1680	9 th 1682	
9 th 1682	10 th 1694	

2. What is the trend of the time gaps between eruptions?
3. Does there appear to be any connection between the length of the time gap and the scale of the eruption?
4. How long is it since the last eruption in 1944?
5. Represent the information in the table as a timeline. This will show clearly how concentrated the eruptions have been in recent centuries compared to the earlier eruptions.
6. From the evidence that you have been studying, do you think Vesuvius will erupt again? Is an eruption perhaps overdue?
7. Use the internet to find out about the 1944 eruption. What were the products of the eruption and what were their impacts on the local area? Add some annotated photos to support your account. If a similar eruption took place in the next few years, would it have a greater impact on people?