

Dial of Aho

© Christopher Daniel, UK chris.daniel@sundialdesign.co.uk

uch has been written about the 'Dial of Ahaz', referred to in the Bible, in the Old Testament in 2 Kings and in Isaiah, as to what kind of sundial it might have been and how it would have worked, some with ingenious but inconclusive theories. The most recent discussion on this matter appears in the British Sundial Society BULLETIN by John Wall.

Following the death of King Solomon (c1000BC-931BC), the Kingdom of Israel became divided into two separate kingdoms, the northern state keeping the name of Israel and the southern taking

the name of Judah, with the City of Jerusalem within its domain. Some 200 years were to pass before King Ahaz of Judah (736-716BC) came to the throne, during which time, in the year 722BC, the expanding empire of Assyria laid siege to Samaria, the capital city of Israel, and conquered the kingdom.

With the tribes of Israel slaughtered or deported, and Assyria occupying this land, Judah became more vulnerable to Assyria. At this time, the prophet Isaiah lived in Judah,

where he was well known and respected. He was an aristocrat, a friend and councillor of the kings, and a cultured statesman. He advised King Ahaz not to be afraid of the enemies of Israel, notably the Assyrians; but Ahaz did not heed his advice and engaged in a policy of appeasement, paying heavy tribute to Assyria. Indeed, he sought to ingratiate himself further by encouraging the worship of Assyrian gods.

However, when King Hezekiah (716-687BC), the son of Ahaz, came to the throne of Judah, he not only listened to the advice of Isaiah but acted on it, shrewdly moving to assert his independence from Assyria. He reorganised his army and strengthened Jerusalem's fortifications, ensuring a safe water supply to the city in the event of an attack. Nevertheless, when an Assyrian attack came, as indeed it did, a devastating disaster befell the Assyrians

encamped out side the gates of Jerusalem. The Bible, (2 Kings, chapter 19, verses 35-36, and Isaiah, chapter 37, verses 36-37) records this event thus: 'And it came to pass that night, that an angel of the Lord went to the Assyrian camp and killed 185,000 soldiers. At dawn the next day, there they lay, all dead! Then the Assyrian Emperor Sennacherib withdrew and returned to Nineveh.' It would seem that a deadly plague had struck down the Assyrian force.

Curiously, the first verse of the next chapter in both 2 Kings and Isaiah begins with the words: 'In those days was Hezekiah sick unto death,' perhaps caused by the same plague that had

Figure 1 (left). The fixed 'Dial of Ahaz'.

Figure 2. The portable 'Dial of Ahaz'.

destroyed the Assyrian army; but Hezekiah 'prayed unto the Lord'. Then the prophet Isaiah came to him and said that his prayer had been answered, that he would not die then, but would have 15 years more added to his life Hezekiah found this hard to believe and asked for a sign that this promise would come true. It is at this point (2 Kings, chapter 20, verses 8-11, and Isaiah, chapter 38, verses 7-8) that Isaiah offers Hezekiah the choice as to whether the sign, that this promise would be fulfilled, should be that the shadow of the sundial of Ahaz should be made to go forward by ten degrees or backwards by ten degrees. Hezekiah chooses the latter, considering that this would be the more difficult of the two possibilities, and so it was agreed. This miraculous event probably took place about the year 702BC.

What form the sundial took we do not know; but since the term 'steps' has been used in place of 'degrees' in different translations and editions of the Bible, it has been suggested that it might have been a stairway of some sort, with a pillar casting the shadow, such that the shadow would move up or down the staircase. What is interesting is that the sundial is invariably referred to as the 'Dial of Ahaz', which suggests that it was made at the direction of King Ahaz, Hezekiah's father, not by King Hezekiah himself.

Whilst, to the best of my knowledge, no-one has vet managed to provide a definitive reconstructed image of the 'Dial of Ahaz', from time to time, it has been depicted by glass-painters in stained-glass panels, portraying religious scenes from the Bible, in a number of cathedrals and churches. Perhaps the

> most notable of these are two images in the magnificent medieval stained-glass of Canterbury Cathedral. The one in the bible window of the Corona Chapel depicts Hezekiah near death on his bed. with a 'fixed' sundial behind him, much like the semi-circular dials on Anglo-Saxon churches, carved into the stonework, delineated with canonical hour-lines. The dial is set upon a slim pillar, similar to the one in the mosaic floor in the Roman villa at

Brading, in the Isles of Wight ('A Roman legacy', Sundial Page, CLOCKS Magazine, Volume 15/10, p40, March

The other sundial, which is to be found in the Old Quire Clerestory Window, must be one of the earliest known representations of a portable dial, which Hezekiah is shown holding in his hand. In its circular shape, it closely resembles an astronomer's astrolabe, albeit with hour-lines radiating from its centre. Whilst these stained-glass devices are not functional sundials, they nevertheless deserve recognition in this field, if only because they pre-date all such dials in this remarkable and beautiful class.

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