The cosmic womb
Labyrinths and rebirth in Christian symbolism

Sarah Jane Boss

The descent to the underworld is easy:

night and day the door of gloomy Dis stands open;
but to recall your steps and pass out to the upper air –
this is the task, this the toil!
(Aeneid VI, 126–129)

In a monastery on Mount Athos there is a quite extraordinary icon of
the Mother of God. It depicts her legs, discretely veiled, but parted in
such a way that the viewer is looking into her body where there is a
symbolic representation of the cosmos. The icon is called ‘the universe
in the womb of the Mother of God’. She who bore in her womb the One
through whom all things were made bears within herself a place of
incomparable mystery and grandeur. It is within her that the whole of
creation is transformed.

The argument of this paper is that the labyrinth is the womb, and the
rituals associated with labyrinths are rituals of fertilization, conception,
gestation and birth. By analogy, the labyrinth is also the place of death
and burial, and its rituals those of rebirth to new life. It is the place
where heaven and earth meet – a meeting which generates the fruit that
is spiritual and eschatological deliverance. This is a widely held
understanding of the ancient symbolic meaning of the labyrinth, and it
shows the particular suitability of the labyrinth’s presence in churches
dedicated to the Blessed Virgin, Chartres Cathedral being perhaps the
most striking example of such a church.

Theseus at Knossos

In Western civilization, although the most ancient labyrinth is reputed
to be that of Egypt, the archetypal labyrinth is that of Knossos on the
island of Crete, known primarily through the legend of Theseus and the
Minotaur. So many of the details of the Theseus legend are replicated
at Chartres that it is worth giving a careful rendering of the legend here.
Theseus was the son of Aegeus, king of Athens. His mother was Aethra, daughter of Pittheus, king of Troezen. Theseus was brought up at Troezen, by his mother and in seclusion. When he grew up he went to Athens, where he slew the Marathonian bull which had been terrorizing the Athenian people. Aegeus then acknowledged Theseus as his heir.

In Athens, however, all was still not well, due to a dispute that had arisen between Athens and Knossos, the city of Crete. Knossos was the most powerful maritime state in the Mediterranean, and was ruled over by King Minos, son of Zeus and Europa. Homer says that Minos' wisdom and justice were very great, so that after his death he was appointed one of the judges in Hades. Minos' wife was Pasiphae, daughter of Helios and Perse. Now Minos and Pasiphae had a son, Androgeos, who beat all his opponents in the Panathenaic games at Athens – an annual festival held during August in honour of the goddess Athena. Aegeus was jealous of Androgeos' success and had him assassinated. At least, this was the story that was brought back to Minos in Crete. So Minos imposed a penalty on the Athenians. At Minos' court there was an engineer and inventor, Daedalus, who had designed a structure called the labyrinth. The labyrinth was so designed that if anyone were placed inside it, it would be more or less impossible for them to find their way out without a guide. Daedalus had also invented a wooden cow, in which Pasiphae had been concealed and in this guise had had sexual intercourse with a bull. In consequence of this she conceived and gave birth to a creature that was part man and part bull – the Minotaur (Greek: Minos + tauros [bull]). The Minotaur inhabited the labyrinth and was so fierce that it would kill any human that fell in its path. Now the tribute that Minos exacted from the Athenians was this: every nine years, seven youths and seven maidens were to be shipped to Knossos. When they arrived, the fourteen, one by one, would be cast into the labyrinth. Since they could not find their way out, they would eventually be caught and slain by the Minotaur.

When Theseus arrived in Athens, two tributes had already been paid, and the time for the third was approaching. So Theseus offered himself to be one of the seven youths, saying that he would find a way to slay the Minotaur. Aegeus tried to dissuade his son from this dangerous course of action, but Theseus was resolute, and Aegeus eventually consented. The ship taking the maidens and youths to Knossos usually sailed under a black sail, so Aegeus told Theseus that if he were successful in his endeavour, then he should return to Athens under a white sail instead.

So Theseus sailed to Knossos, where he met Ariadne, the fair-haired daughter of Minos and Pasiphae. Daedalus had made a dance-floor for
her, and on the floor was the design of the Egyptian labyrinth, a magnificent sacred site which included burial places. Ariadne fell in love with Theseus, and the two conspired together in such a way that Ariadne gave Theseus a sword with which to slay the Minotaur, and a thread—a clew—of which one end should be fastened to the entrance to the labyrinth, and the rest held in Theseus’ hand, so that as he proceeded through the labyrinth, the thread would unwind and he would be able to follow it back out in order to escape. So when Theseus was sent into the labyrinth, he engaged in a great combat with the Minotaur and killed him, and then followed the clew back out again. He freed the other Athenian youths and maidens, and gained possession of the ship. All of them, together with Ariadne, then set sail for Athens.

On the journey home, the party stopped at numerous islands, where they celebrated their victory with song and dance. One of these islands was Delos. Now Delos was a sacred island, because it was the birthplace of the god Apollo and the goddess Artemis, who were twins. The island had once been drifting, but Zeus had anchored it so that Apollo’s and Artemis’ mother Leto could give birth there. Artemis was born first and acted as midwife the next day at the birth of her brother Apollo. Artemis slew she-goats and Apollo made an altar with their horns, and the altar was said to be one of the seven wonders of the world because it was made without mortar. The sanctity of the island was such that no mortals were allowed to be born or to die there, although it was said that seven virgins had been buried there.

When Theseus and his company arrived on Delos, they performed a dance there—the *geranos*, or ‘crane dance’ (so called, perhaps, because it may have imitated the mating dance of cranes). It was said that this dance mimicked the threading of the labyrinth. It was also said that prior to this, men and women had always danced separately, and that this was the first occasion on which they danced together.

The company also sailed to Naxos, where Theseus left Ariadne behind. Theseus and the other youths and maidens returned to Athens, but Theseus failed to change the sail on their ship. So when Aegeus saw the black sail in the distance, he assumed his son to be dead and drowned himself in the sea, which is why it is called the Aegean Sea. Theseus thus returned to be king of Athens.

This legend has been used again and again by Christians, especially in association with the construction of labyrinths in churches. Usually, these images make the obvious symbolic association between Theseus’ destruction of the Minotaur and Christ’s triumph over Satan, but they often involve more detailed and evocative symbolism of rebirth after death.
Christians have placed labyrinths in churches from antiquity. The oldest is probably the pavement labyrinth at the church of Reparata in Orléansville, Algiers, which may date from as far back as the fourth century. The labyrinth is a square construction, with a single pathway arranged into four quarters. At its centre is a square containing a sort of word-game using the words sancta ecclesia – ‘holy church’.  

Most of the church labyrinths, however, were constructed during the Middle Ages, and several of these make explicit reference to Theseus and the Minotaur. On the wall of Lucca Cathedral, for example, is a small disc-shaped labyrinth, consisting of eleven circuits and with the following inscription facing the ‘entrance way’:

\[
\begin{align*}
Hic quem Creticus edit \\
Daedalus est laberinthus, \\
de quo nullus vadere \\
quivit qui fuit intus, \\
i Theseus gratis Adriane \\
stamine jutus.
\end{align*}
\]

Roughly translated, this means: ‘This which the Cretan Daedalus built is the labyrinth, from which none who entered would ever leave, were it not for Theseus who was aided thanks to Ariadne’s thread.’

In the church of San Michele Maggiore in Pavia there is likewise a small, circular, wall labyrinth, possibly from the tenth century. At its centre is a picture of Theseus slaying the Minotaur (who is shown as half-man and half-bull), with the inscription: Teseus intravit monstrumque biforme necavit, i.e., ‘Theseus entered and killed the double-formed monster.’ Next to the labyrinth there is a representation of the contest between David and Goliath. Since David’s slaying of Goliath must be intended as a type of Christ’s overcoming Satan and the powers of evil, it is reasonable to assume that the image of Theseus and the Minotaur is to be understood as a pagan type of the same Christian drama.

At the centre of two of these labyrinths, then, is a symbol of salvation: the Church, and the overcoming of evil. The centrepiece of the Lucca labyrinth no longer survives, but the inscription suggests that the labyrinth stands for a place of imprisonment and death – either Hell or this world – and that Theseus should again be understood as a type of Christ who has liberated the world from that imprisonment. In some mediaeval authors, the number eleven – the number of circuits of the labyrinth – is symbolic of this world in its unredeemed state, since it exceeds the number of the Mosaic commandments and is just short of
the number twelve, which is one of the perfect numbers. That Theseus is assisted by Ariadne may be a figure for the co-operation of Our Lady in the work of redemption, since she gave the Saviour his humanity and thus provided the thread by which Heaven united itself to Earth and thus secured its redemption.

In the great Gothic cathedral of Amiens, the original labyrinth – which was laid in the floor of the nave during the thirteenth century but largely destroyed at the French Revolution – bore the inscription *Maison dedalus*, or ‘Daedalus house’. This designation seems intended to point to the genius of the cathedral architects, since together with this naming of the master engineer of antiquity, at the centre of the labyrinth there were (and are again, since it has been restored) representations of the bishop who commissioned the cathedral’s construction and of the three architects who oversaw its execution. So the figures at the centre of the labyrinth are now human, rather than other-worldly. This shift corresponds to the new confidence and interest in human powers that were a strong feature of cultural developments during the twelfth and thirteenth centuries, and which are admirably attested to in the remarkable construction of Gothic cathedrals such as Amiens. Yet these buildings were intended in some way to represent Heaven on Earth, and most details of their construction are intended to turn the mind to that which is eternal and unchanging. This labyrinth, for example, is octagonal. The octagon had been used for Christian sepulchres – the sites from which the elect will rise to glory – and for churches commemorating the site at which a unique exchange between Heaven and Earth had taken place. The fifth-century Tomb of the Virgin in Jerusalem, for example, was octagonal; likewise the fourth-century shrine of the Ascension at the Mount of Olives and the ancient sanctuary of the Church of the Holy Nativity at Bethlehem. The Tomb of the Virgin may be a significant reference point for the labyrinth at Amiens, because the cathedral is dedicated to the Assumption; and the four human figures in the stone at the centre originally rested between the arms of an inlaid copper cross of whose east-west axis it was said that if it were extended sufficiently it would coincide with the point at which the sun rises (or rose) on 15 August, the feast of the Assumption. The cross – the instrument and symbol of redemption – thus pointed to the ascent into Heaven of her who had passed through this earthly life (signified by the labyrinth) and the tomb (signified by its octagonal shape), and is now united with Christ, of whom the sun is a primary emblem.
**Chartres Cathedral**

The most well known labyrinth in a Christian church is almost certainly that at Chartres Cathedral in northern France, which, as at Amiens, is an enormous pavement (about 40 feet in diameter) set in the floor of the nave. Again as at Amiens, the church is dedicated to the Assumption of the Virgin; and indeed, it is impossible to understand much at all about the construction and decoration of Chartres without reference to Catholic teaching about Our Lady. The almost circular shape of the labyrinth may itself be a reference to the Virgin's tomb, since during the Middle Ages there was a gradual shift from octagonal to circular buildings to represent ancient sepulchres. Round buildings are especially associated with Marian dedications.  

**Birth and eternity**

The doctrine of the Assumption holds that the Blessed Virgin was taken body and soul to Heaven, so that she did not endure any bodily corruption in the grave. In honour of this, burials have always been forbidden within Chartres Cathedral; just as Our Lady's body knew no decay, so no other bodies should decay in her palace. This may call to
mind the prohibition on birth and death on the island of Delos (except, of course, for the seven virgins!) – the island on which the dance of ‘threading the labyrinth’ was first performed. And the story of this first labyrinth dance on Delos seems to contain a paradox: for a dance which is noted for its bringing together the two sexes might well be understood to be concerned with fertility and procreation; yet the sanctity of the island of Delos – on which was born the virgin Artemis – was such that childbearing was not permitted on it. A not dissimilar paradox exists in Christian tradition, which holds on the one hand that the Blessed Virgin was the human mother of Christ, and in many places has regarded her as the special protectress of women in childbirth, yet on the other hand maintains that she was perpetually a virgin and that she is the special protectress of those whose lives are vowed to virginity. So let us unravel this paradox a little.

Virginity is frequently associated with fertility. The rationale behind this seems to be the idea that fertility is something of which one is, as it were, endowed with a certain quantity, and that a portion of this original fertility is used up each time one generates a new life. In the case of soil, it is evident that the growth of certain plants does indeed deplete its store of nutrition, so that its fertility is reduced. Thus, virgin land is the most fertile. A similar principle has often been applied in thinking about humanity, so that the virgin woman is perceived to have a full measure of fecundity. The association between virginity and fertility in the mythology of labyrinths, however, is more complex than this.

The labyrinth seems since ancient times to be associated with fertility. A wine pitcher, made in Etruria about 620 BC, was found in an Etruscan tomb at Tragliatella. Its decoration (to which we shall return below) includes a drawing of a labyrinth, of the type found on ancient Cretan coins, and next to it two depictions of a man and woman copulating. Scandinavian labyrinths, made of stones set on the ground, are usually also of the Cretan type. They are often called ‘Troy towns’, but in some cases were also known as ‘maiden’s dances’, apparently because of a ritual dance in which a young woman would stand at the centre of the structure whilst young men would process through it. On the basis of comparisons with other customs, modern authors have speculated that this practice had its origin in ancient springtime rituals. Perhaps this invites the question as to what was the dance that Ariadne performed on her labyrinthine dance-floor.

In parts of India, labyrinth designs of the ‘Cretan’ type have traditionally been used in procedures for easing the pains of women in labour – a practice that seems to be connected to the idea that the
Coin from Knossos, c.300 BC
From Aidan Meehan: Maze Patterns, fig.35

Labyrinth represents the womb.\(^\text{16}\) As with the European examples, this shows a connection between the labyrinth and procreation; but it also suggests a connection between fecundity and heaven, since rebirth from the womb is a motif that is sometimes used to describe the passage of a deceased person from death to new life. In Christianity, the resurrection of the elect has on occasions been articulated precisely as the rebirth of the Christian from the womb of the Mother of God. Thus, a Visigothic prayer book addresses her in the following words:

Chakra-vyūha Illustration from a modern book of Indian rituals. It accompanies a text for the easing of labour pains.
From Kern: Through the Labyrinth, fig.631
Receive your people's requests . . . so that, welcoming into your maternal womb all those who, exiles on the journey of life, take refuge in you with certain hope, you may present them, saved, to the Lord Jesus Christ, your son. 17

The same idea seems implied in the famous painting of the pregnant Virgin by Piero della Francesca. This standing figure of the Godbearer, who holds herself majestically between curtains parted by angels, was painted for the cemetery where the artist’s mother was buried. So Piero painted the Mother of God as a gift for his own mother, and suggested in a visual image that those who have put on Christ in baptism — or, as we say in English, have been ‘christened’ — are waiting in the belly of the earth for rebirth in Christ at the Resurrection.

Now, one of the characteristic features of the heavenly state is that it is without time. In heaven there is the quality of eternity: things do not change. In contrast to this, conception and birth are part of the world of flux and transition; so virginity, as the opposite of this, signifies the transcending of time in eternity. It is sometimes claimed of virgin saints that their bodies have been miraculously preserved from decay, as was that of the Virgin Mary. In the passage from this world to heaven, therefore, there is both rebirth — the blossoming of seed that was sown in the world of change — and the realization of the perfect peace of eternity. In the Virgin Mary, these qualities of earthly fruitfulness and heavenness are simultaneously present in her motherhood and her virginity. In her palace of Chartres Cathedral, the labyrinth is the pathway of this world in which the Christian soul is nourished and grows within the womb of the Church, whilst the dedication to the Assumption and the absence of death represents the heavenly state into which body and soul will eventually emerge, like a butterfly that breaks out of its chrysalis and into the light of day. Indeed, the building is itself intended to be an icon of heaven on earth. For example, the sacred numbers seven and nine are incorporated over and over again in the building’s construction. 18 These numbers, of course, occur in the legend of Theseus and the Minotaur; but that reference is overpowered by the significance which the numbers bear in Christianity. Seven is the perfect number of the days of creation, whilst nine is the number of the Blessed Trinity multiplied by itself. 19 At Chartres, there are seven bays across the transepts and seven chapels in the apse. There are nine doorways, and it is likely that in the original plan for the cathedral it was intended to build nine towers. Calculations of the geometry of the floor plan suggest that the aisles and nave are composed of sixty-three
rectangles. And so on. So the labyrinth is a place of change and growth within the assurance of fulfilment and final perfection.

Making the transition
In the light of what has gone above, it will not be surprising to learn that labyrinths have a particular association with death, funerals and the safe deliverance of the soul to the afterlife. This ‘safe deliverance’ may be understood as analogous either to the delivery of a child from the womb to the outside world, or else to the deliverance of a labouring mother from a time of great danger. More probably, both references should be taken together. 20

In Book V of the *Aeneid*, Virgil records that Aeneas escaped from Troy carrying his father and leading his son Iulus, or Jules. Jules and his friends then take part in an activity called ‘the game of Troy’. This was performed in Italy, and Romans said that it had been introduced there by Aeneas. It was a processional dance, or parade, with some participants on horseback. Virgil compares the movement of the dance to the movement of the labyrinth: it is intricate, and easy for the dancer to make a mistake. The wine pitcher from the tomb near Tragliatella depicts not only the copulating couples and the labyrinth, but also a military-looking procession, including riders on horseback, and the inscription ‘Truia’. Other Roman authors report that the ‘game of Troy’ was performed at funerals, around graves.

The precise significance of the labyrinth in this regard is strongly suggested by another passage from the *Aeneid*, this time from Book VI. Here, we learn of Aeneas’ arrival at Cumae, facing Crete. It is said that Daedalus made himself wings and flew here from Crete. When he arrived, he built a temple to Apollo, on the doors of which was depicted the death of Androgeos and the Athenian tribute. The passage recalls the Minotaur and the thread – itself contrived by Daedalus.

At a cavern by the temple there is a sibyl, a prophetess inspired by Apollo. Aeneas consults her, because he wants to visit his now dead father. He appeals to her for help, and in reply she says:

The descent to the underworld is easy:
night and day the door of gloomy Dis stands open;
but to recall your steps and pass out to the upper air –
this is the task, this the toil! [Lines 126–129]

The sibyl says that this re-emergence from ‘gloomy Dis’ is only for a few – for those whom Jupiter has taken to heaven. And this indeed is
the central point about the labyrinth: it is a place of entrapment and potential escape. The escape comes by supernatural help, or with the assistance of the right execution of the steps of an elaborate dance.

It is possible that the original construction of the labyrinth was precisely in the form of a dance floor, like Ariadne's. The pathway of the labyrinth may at root be the mapping out of the path of a processional dance. At the cathedrals of Auxerre and Sens in the late Middle Ages, a dance around the labyrinth would be performed on Easter day. The date of the dance suggests that its significance was related to that suggested in the passage from Virgil, namely, the escape from the underworld and re-emergence to the light of day. In this case, of course, that escape and re-emergence are the Harrowing of Hell and Resurrection of Christ, which constitute the final defeat of the powers of the Minotaur and the potential liberation of the whole world from the labyrinth of death.

The movement through the labyrinth, and from one world to another, is most likely at the foundation of all labyrinth traditions. The observant reader may have noticed that a number of place names mentioned in connection with labyrinths begin with the letters 'Tr': Troezen, Troy and Tragliatella. 'Tr' seems to be an Indo-European root in words to do with movement across. All the words containing the Latin trans are in this class, together with 'tradition' ('handing on') and such English words as 'tread', 'trample' and 'trip'. The game of Troy is concerned with movement from a place of danger to one of safety – that is to say, with deliverance or salvation.

The Virgin and Child
According to Christianity, salvation is possible because the Word of God crossed over the boundary between Creator and creature and became a human being. By that act, the way between heaven and earth was opened up, so that creatures can receive the grace to be divinized – transformed into a state of heavenly glory. This union of God and creation occurred in the conception of Christ in the womb of his mother Mary, and so her womb is the prototypical and uniquely privileged place of exchange between heaven and earth.

In the crypt of Chartres Cathedral there has been a shrine of the Virgin Mary since time immemorial. It is the site of a holy well, and romantic tradition holds that even before the advent of Christianity the place was prophetically held sacred to the Virgo paritura, the 'Virgin who will give birth'. The present church building, constructed at the turn of the thirteenth century, is built in such a way that the whole
construction is founded and focused upon the more ancient crypt. Before it was destroyed at the French Revolution, a Romanesque statue of the Virgin in Majesty held pride of place in the crypt chapel, and there is now a modern copy in the same place. The statue shows the Christchild enthroned on his mother’s lap, and the Virgin enthroned as queen of heaven and earth. The image of Christ is intended to depict him as God incarnate. In his left hand he holds a globe representing the cosmos, and with his right hand he raises his fingers in blessing – both gestures indicating his divine status. But at the same time, he is only a child on his mother’s lap, and he has bare feet – both attributes which signify his humanity. His mother, on the other hand, was only a human woman, and yet she was depicted enthroned and crowned as Queen of Heaven; because by giving the Son of God his humanity, she co-operated in a uniquely important manner in the work of salvation and is honoured with the paradoxical title of ‘Mother of God’. Thus the incarnation of God and the corresponding glorification of humanity are depicted in a single image representing the single mystery in which the crossing between heaven and earth, in both directions, is accomplished.

In Christ, God unites himself to the whole created order and thus sanctifies it and makes possible its deliverance from death and destruction. For Christians, then, the labyrinth-womb is the womb of the Blessed Virgin Mary, by whom the whole universe is redeemed from death in order to come to rebirth in Christ.

Sarah Jane Boss is Director of the Centre for Marian Studies at the Margaret Beaufort Institute of Theology, Cambridge, and Executive Editor of The Way.

NOTES

1 The story of Theseus and the Minotaur occurs in a number of versions and has been re-told many times. The principle Classical source for the story is Plutarch’s Lives, written during the first century. For English accounts, see W. H. Matthews, Mazes and labyrinths: their history and development (New York: Dover Publications, 1970 [London, 1922]), pp 17–22; Hermann Kern, Through the labyrinth: designs and meanings over 5,000 years (Munich, London and New York: Prestel, 2000), pp 41–42.

2 That Theseus was brought up by his mother away from civilization is an interesting detail, because it occurs in other stories of heroes. It is told, for example, of Parsifal (Wolfram von Eschenbach, Parzival, translated by A. T. Hatto [Harmondsworth: Penguin Books, 1980]), and likewise of Parsifal’s British counterpart Peredur (G. Jones and T. Jones [trans], The Mabinogion [London: Dent (Everyman Library), 1949], pp 183–227). It seems worth considering whether the
strong Mediaeval and Renaissance interest Christ's relationship with his mother Mary may not have been connected to this wider cultural background.

3 Most visual representations of labyrinths – from ancient Crete until the Middle Ages – show them to have a single pathway snaking inwards and outwards from the outside to the centre. Technically, therefore, it should be possible to find one's way out. Kern argues that this is the 'original form' of the labyrinth, and that other forms, such as pathways that have blind alleys, or key patterns, are not strictly 'labyrinths'. He and some other authors designate pathways with blind alleys (such as that at Hampton Court) 'mazes', and make a clear distinction between the two forms of the labyrinth and the maze.

This distinction may have a certain functional advantage for the student of mazes and labyrinths, but from a historical point of view it seems artificial. There is no good reason for assuming that there was ever some single 'original form' signified by the word 'labyrinth', and in English usage, the word 'maze' (cognate with 'amaze' – i.e., a place where you are astonished and puzzled) has generally been used interchangeably with 'labyrinth' (a word known from Greek authors, but whose origin is disputed).

Notwithstanding the simplicity of the single-pathway labyrinth, walking along such a path is very disorientating.

4 Matthews, Mazes and labyrinths, pp 1-16.
5 Matthews, Mazes and labyrinths, pp 54-55; Kern, Through the labyrinth, p 88 and other refs.
6 Matthews, Mazes and labyrinths, pp 55-57; Kern, Through the labyrinth, p 156.
7 Matthews, Mazes and labyrinths, p 56; Kern, Through the labyrinth, pp 157–158.
8 Kern, Through the labyrinth, p 144. Kern cites Hincmar of Rheims (ninth century) in support of this claim.
9 Kern, Through the labyrinth, pp 149–150.
13 For an explanation of how this is applied to the Virgin Mary in the writing of Nicholas of Cusa, see Sarah Jane Boss, Empress and handmaid: on nature and gender in the cult of the Virgin Mary (London: Cassell, 2000), pp 188–189.
14 A description, photograph and line drawing are given in Kern, Through the labyrinth, pp 78–82.
15 Kern, Through the labyrinth, p 268.
16 Kern, Through the labyrinth, p 294.
17 Costante Berselli and Giorgio Gharib (eds), In praise of Mary: hymns from the first millennium of the Eastern and Western churches, translated by Phil Jenkins (Slough: St Paul Publications, 1981), p 64.
19 James believes that these numbers had particular Marian significance, Chartres, p 84 and elsewhere.
21 Kern, Through the labyrinth, p 25.
22 Kern, Through the labyrinth, pp 146–147.