NOAH—AN ALBINO

BY

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Noah, with his wife, his ark, and the animals that came two by two, is probably the first vividly human figure in the Biblical account of the early days of man. In this he differs from the weak and gullible Adam, the milk-sop Abel, the stage villain Cain, and Methuselah, whose main distinction was not to have died young. Amongst Noah's shadowy progenitors his father, Lamech, has persisted as little more than a name. The birth of Noah is recorded in Genesis briefly, with an indication that he was called to a high mission¹: "And Lamech lived an hundred eighty and two years, and begat a son: And he called his name Noah, saying, This *same* shall comfort us concerning our work and toil of our hands, because of the ground which the Lord hath cursed." The subsequent account of the Flood and the emergence of Noah as the first boat-builder and sailor in the world's history reveals the nature of the mission to which he was born.

Enoch's Record of the Birth of Noah

A fuller account of the birth of Noah is contained in the Book of Enoch the Prophet, one of the more significant volumes in the Pseudepigrapha.² It appears to have been written in the second and first centuries B.C., and greatly influenced the writers of the New Testament, in which it is quoted by name in several passages. Possessing at first the weight of a canonical book, it gradually declined in importance and finally fell under a ban of the Church. It does not appear to have received much attention after the ninth century, and came to be regarded as lost till three manuscripts in Ethiopian were brought from Abyssinia by Bruce in 1773. The Book of Enoch, like the rest of the Apocalyptic literature, is heavy with primitive mythological and cosmological traditions. It relates in considerable detail of "the Watchers of heaven, who have deserted the lofty sky, and their holy everlasting station, who have been polluted with women."³ . . . And the women conceiving brought forth giants."⁴ The birth of Noah is recorded in similar mystical terms.⁵

After a time, my son Mathusala took a wife for his son Lamech.

She became pregnant by him, and brought forth a child, the flesh of which was white as snow, and red as a rose; the hair of whose head was white like wool, and long; and whose eyes were beautiful. When he opened them, he illuminated all the house, like the sun; the whole house abounded with light.

And when he was taken from the hand of the midwife, opening also his mouth, he spoke to the Lord of righteousness. Then Lamech his father was afraid of him; and flying away came to his own father Mathusala, and said: I have begotten a son, unlike to other children. He is not human; but, resembling the offspring of the angels of heaven, is of a different nature from ours, being altogether unlike to us.

His eyes are bright as the rays of the sun; his countenance glorious, and he looks not as if he belonged to me, but to the angels.

I am afraid, lest something miraculous should take place on earth in his days.

And now, my father, let me entreat and request you to go to our progenitor Enoch, and to learn from him the truth; for his residence is with the angels.

When Mathusala heard the words of his son, he came to me at the extremities of the earth; for he had been informed that I was there: and he cried out.

I heard his voice, and went to him, saying; Behold I am here, my son; since thou art come to me.

He answered and said; On account of a great event have I come to thee; and on account of a sight difficult to be comprehended have I approached thee.

And now, my father, hear me; for to my son Lamech a child has been born, who resembles not him; and whose nature is not like the nature of man. His colour is whiter than snow; he is redder than the rose; the hair of his head is whiter than white wool; his eyes are like the rays of the sun; and when he opened them he illuminated the whole house.

When also he was taken from the hand of the midwife, he opened his mouth, and blessed the Lord of heaven.

His father Lamech feared, and fled to me, believing not that the child belonged to him, but that he resembled the angels of heaven. And behold I am come to thee, that thou mightest point out to me the truth.

Then I, Enoch, answered and said; The Lord will effect a new thing upon the earth. This have I explained, and seen in a vision. I have shown thee that in the generations of Jared my father, those who were from heaven disregarded the word of the Lord. Behold they committed crimes; laid aside their class, and intermingled with women. With them also they transgressed; married with them, and begot children.

A great destruction therefore shall come upon all the earth; a deluge, a great destruction, shall take place in one year.

This child which is born to you shall survive on the earth, and his three sons shall be saved with him. When all mankind who are on earth shall die, he shall be safe.

And his posterity shall beget on the earth giants, not spiritual, but carnal. Upon the earth shall a great punishment be inflicted, and it shall be washed from all corruption. Now therefore inform thy son Lamech, that he who is born is his child in truth; and he shall call his name Noah, for he shall be to you a survivor. He and his children shall be saved from the corruption which shall take place in the world; from all the sin and from all the iniquity which shall be consummated on earth in his days. Afterwards shall greater impiety take place than that which had been before consummated on the earth; for I am acquainted with holy mysteries, which the Lord himself has discovered and explained to me; and which I have read in the tablets of heaven.

In them I saw it written, that generation after generation shall transgress, until a righteous race shall arise; until transgression and crime perish from off the earth; until all goodness come upon it.

And now, my son, go, tell thy son Lamech,

That the child which is born is his child in truth; and that there is no deception.

When Mathusala heard the word of his father Enoch, who had shewn him every secret thing, he returned with understanding, and called the name of the child Noah; because he was to console the earth on account of all its destruction.

The version in Genesis, and that in the Book of Enoch, are thus supplementary. Both stress that Noah was born to a dedicated life, as is testified by his name, which is derived from the Hebrew verb signifying to comfort. The Book of Enoch, with its emphasis on his unusual appearance at birth, merely builds up a supernatural background to a worldly mission.

A Reconstructed Fragment

A totally different possibility is suggested by the deciphered fragment of Column II of a particularly badly preserved scroll from the Dead Sea caves (Qumran I), brilliantly identified by N. Avigad and Y. Yadin as a Genesis Apocryphon, and not the lost Book of Lamech as was first supposed. Their reconstruction of this fragment shows Lamech's preoccupation with his wife's faithfulness—a reaction noted repeatedly all through the ages in the literature on the birth of abnormal children to normal parents. It is only when Lamech is assured by his wife with considerable verbal emphasis that the unusual child is indeed his that he hastens to his father, Methuselah, and his grandfather, Enoch (who sojourns with the angels), to obtain a more complete explanation of an exceptional event.⁶

1. Then I thought in my heart that the conception had been from the Watchers and the ... from the holy ones or [?] the fallen angels.

2. And my heart was changed because of this child.

3. Then I, Lamech, was frightened and I came to BT'NWS, my wife, and [I said] ...

4. "[... Swear to me] by the Most High, the Lord of greatness, King of all worlds ..."

5. Sons of Heaven till thou tellest me all in truth if ...

6. [In truth ?] Tell me without lies ...

7. By the King of all worlds till thou speakest with me in truth and with no lies" ...

8. Then BT'NWS, my wife, spoke to me with vigour and with ...

9. And she said, "O my brother and O my lord, remember my pleasure ..."

10. the period, and my spirit into the midst of its sheath and I in truth all ..."

11. And my heart then had changed within me greatly.

12. When BT'NWS, my wife, perceived that my countenance had changed ...

13. Then she suppressed her wrath and spoke to me and said, "O my lord and O my [brother] ..."

14. My pleasure, I swear to thee by the great Holy One, the King of H[eaven ?] ...

15. that thine is this seed and from thee is this conception and from thee was the fruit formed ...

16. And it is no stranger's, nor is it of any of the Watchers or of the Sons of Heaven ... [What]

17. has so altered and blemished thy countenance and [why] is thy spirit so low ? ...

18. In truth I speak with thee."

19. Then I, Lamech, hastened to Methuselah, my father, and I [told him] all ...

20. his father and he would of a surety learn all from him, for he was the beloved and [... with angels]

21. his lot was apportioned and to him they tell all. And when Methuselah heard ...

22. to Enoch, his father, to learn all in truth from him.

23. his will. And he went to ... and found him there ...

24. And he said to Enoch, his father, "O my father and O my lord, to whom I ..."

25. ... And I shall tell thee that thou shouldst not be angered that I have come hither ...

26. Fear ...

In the light of this fragment the account of Noah's appearance at birth, as given in the Book of Enoch, is clearly not that of a miraculous child but of an albino.

A body white as snow, hair white as wool, and eyes that are like the rays of the sun—these are the unequivocal physical features to be considered once the laudatory commendations are disregarded.

Origin of Noah's Albinism

The fragment also allows some conclusions on the mode of inheritance of Noah's albinism. On the strength of line 9, and their reconstruction of the last word in line 13, Avigad and Yadin hold that BT'NWS, Lamech's wife, was also his sister. If this were so—and such relationship was not particularly unusual in primitive societies—Noah becomes the offspring of an extreme type of consanguineous marriage, and his albinism would illustrate not only the antiquity of the affection, but also the fact that the first recorded case showed parental consanguinity. On this reading, Methuselah can now claim the additional distinction of being the first authenticated carrier of albinism—unless the distinction belongs to his anonymous wife (Fig. 1). Avigad and Yadin, however, point out that their reading is contradicted by the one other extant reference to Lamech's wife.⁷

FIG. 1.—Lamech and his wife, shown as brother and sister, must have inherited their recessive gene for albinism from either their father, Methuselah (I, 1), or their mother (I, 2).

FIG. 2.—Lamech and his wife are shown as first cousins. Lamech must have inherited his recessive gene from his father, Methuselah, whilst BT'NWS inherited it from one of her parents, who is recorded as a sib of Methuselah.

The Book of Jubilees, iv, 28, refers to her as "Betenos the daughter of Baraki'il, the daughter of his [Lamech's] father's brother (or father's sister)." This would seem to show Lamech and his wife as first cousins—the common type of consanguinity in albinism—and would exclude Methuselah's wife as a carrier (Fig. 2). On either reading the consanguineous origin of Noah's albinism is beyond question. BT'NWS and Lamech not only produced Noah but also made genetic history. They deserve better than the oblivion that shrouds them.

The possibility that Noah inherited his albinism from a fallen angel need not be considered seriously. Such a supposition raises considerable genetic difficulties. One would have to postulate that BT'NWS and the angel were unrelated carriers of the gene at a time when it could not have been widely scattered, or, again, alternatively, and even less plausibly, that albinism in angels is

dominant and not recessive as in man. Besides, it is not at all certain that albinism occurs in angels, other than seraphim. And clearly fallen angels are no seraphim.

REFERENCES

- ¹ Genesis, v. 28-29.
- ² The Book of Enoch the Prophet. Translated by R. Laurence, 3rd ed. Oxford, 1838.
- ³ Ibid., xli, 5.
- ⁴ Ibid., vii, 11.
- ⁵ Ibid., cv, 1-20.
- ⁶ Avigad, N., and Yadin, Y. *A Genesis Apocryphon*, 1956, p. 40. The Magnes Press of the Hebrew University, Jerusalem.
- ⁷ Ibid., p. 18.

HOSPITAL STERILIZATION CONFERENCE AT SOUTHAMPTON

[FROM A SPECIAL CORRESPONDENT]

On December 17 the South-west Metropolitan Regional Hospital Board held a conference on "Hospital Sterilization" at Southampton University. It was attended by over 300 representatives of the medical, nursing, engineering, and administrative staffs of the hospitals in the region and by members of hospital management committees.

Opening the conference, Dr. J. REVANS, the Board's deputy S.A.M.O., said they had with them Brigadier J. D. WELCH, the leader of the Nuffield team whose report on sterilization practice in six hospitals* was about to be published, and he would give them a first-hand account of the results of this investigation. The audience would well appreciate the importance of the subject in view of the recent outbreaks of post-operative wound sepsis in the area due to both staphylococcus phage type 80 and *Clostridium tetani*.

Nuffield Investigation

Brigadier WELCH said that, when the Nuffield Provincial Hospitals Trust's operational research team started its investigation they decided to carry it out in three phases. The first was to look into present methods of sterilizing in hospitals. The second was to investigate the working of central sterile supply services on the Continent and in the U.S.A. The last phase would entail experimental trial of a central service in selected hospitals in this country. So far they had completed only the first phase, which was what he would discuss.

Six fairly typical hospitals had been chosen—a London teaching hospital, three large provincial general hospitals, and two cottage hospitals. The team had studied nurses at their sterilization tasks, making time studies and taking swabs for culture from all sterile equipment, instruments, dressings, etc. They had also studied conditions in ward sterilizing and sluice rooms, and had examined ward sterilizers, the storage of dressings, and the conditions of drums. A fairly intensive study had also been made of existing hospital autoclaves, their functioning and siting, and the people who operated them. The results of their investigations disclosed a disturbing situation, which Brigadier Welch illustrated by means of a film. It showed how haphazard were many of the methods of timing the boiling of instruments. The results of swabbing showed that 18% of all ward equipment, and 12% of all theatre equipment, was contaminated, figures which, he said, were fairly typical.

Autoclaving Technique Condemned

Autoclave departments were singled out for particularly heavy attack, not only by Brigadier Welch but also by all the subsequent medical speakers. They all stressed that immediate action was needed to correct this most unsatisfactory state of affairs. Much was due to the total lack of training of the autoclave operators, who were usually porters with other hospital jobs, most of whom had little idea of to whom they were responsible.

*Present Sterilizing Practice in Six Hospitals, 1958, Nuffield Provincial Hospitals Trust. See also p. 1582 of this issue.

Brigadier Welch suggested the following short-term remedies that could be adopted immediately by hospitals at relatively low cost: (1) Improvement in the working of autoclaves. (2) Substitution of, say, steam-sterilized cardboard boxes for the present "iniquitous" hospital drums. (3) The introduction of central syringe sterilizing services. (4) Raising the standards of dressing techniques in the wards. (5) Better methods for the disposal of soiled linen and dressings. (6) The clear definition of responsibility in all sterilizing duties, particularly autoclaving.

Professor J. W. HOWIE (Glasgow), speaking on steam sterilization, discussed how a good autoclave should work. He preferred to discard the name "autoclave" and refer to the machines as high-pressure steam sterilizers. He called ward sterilizers "boilers," since they were not sterilizers: boiling did not totally destroy all forms of bacterial life, which was what sterilization meant. This could be accomplished only by exposing bacteria in dressings and instruments (both cutting and otherwise and including endoscopic instruments suitably protected) to dry steam or high-temperature steam under pressure. Provided this steam was at the high "phase boundary" temperature at which the change from water to steam occurred latent heat would be given out, and it was this which killed the bacteria. This vital fact was not generally appreciated. It was of the greatest importance that whoever was responsible for an autoclave should know the temperature reached in the chamber of the sterilizer. This information, which must be entered on the pressure-recording chart, was essential in order to assess whether the contents had been sterilized or not. Human errors were as much to blame for inefficient sterilization as mechanical, and modern over-reliance on antibiotics had led to a dangerous relaxation of standards.

The "Iniquitous" Drum

Professor C. A. WELLS (Liverpool), himself a surgeon, said that in the last few years surgeons had allowed themselves to become too complacent about post-operative sepsis. In any outbreak of sepsis responsibility should rest fair and square on the shoulders of the surgeons, who had been lulled into a sense of false security by the bacteriologists. Professor Wells then showed a film to illustrate faulty techniques in the wards, in autoclaving, and in the maintenance and storage of drums. He suggested the establishment of special "pre-operative wards," and supported Brigadier Welch's plea for the replacement of the "iniquitous" drum by the cardboard boxes, which would stand steam sterilization under pressure at temperatures high enough to kill any spores of *Cl. tetani*. The cardboard boxes could be used as an interim measure until the introduction of special individual packs.

Another Horrifying Survey

In the afternoon Dr. E. M. DARMADY described the control and supervision of hospital sterilization carried out to-day in hospitals in the Portsmouth area. He illustrated his talk with some excellent slides of the many horrifying conditions found in present-day sterilizing practice, even in hospitals with good nursing standards.

A team consisting of a doctor, a bacteriologist, and a senior bacteriological technician under Dr. Darmady's supervision had carried out a survey similar in type to the Nuffield investigation. This team had focused its attention on ward sterilization techniques and the conditions under which nursing staff were expected to perform their sterilizing and dressing duties. These conditions were both unfair to the nurses and dangerous: 20% of swabs from Cheatle's forceps were contaminated, 17% from syringes, 21% from instruments, 36% from bowls, gallipots, receivers, etc., and 24% from the contents of drums. Ward boilers were quite unable to sterilize efficiently, and this had been neatly demonstrated by attaching thermocouples to the instruments being boiled. Equally ineffective were the so-called antiseptic solutions used for cutting instruments. The proper cleaning of instruments by scrubbing them with soap and water before sterilization was important.