The El-Amarna *Habiru* and the Early Monarchy in Israel

Research into possible synchronisms between Egypt and Israel within the framework of the New Chronology has led to the proposal that the el-Amarna Period coincided with the rise of the United Kingdom of Israel. In this light, the author analyses the terms habiru and ‘ibrim to see if they might both have been used to describe the socio-political grouping otherwise known as the Hebrews.

**PETER VAN DER VEEN**

Since the discovery and translation of the el-Amarna Letters, during the last two decades of the 19th century, scholars have been interested in the study of the term *habiru* and, in particular, its relationship to the biblical Hebrews or ‘ibrim. However, due to the discovery of a vast number of documents from the ancient Near East in which the term *habiru* or its Sumerian logogram SA.GAZ were found, it became evident that the term *habiru* was utilised exclusively as a socio-political appellation for ‘migrant people’ who had left their original habitat and whose subsequent life style was frequently associated with that of ‘outlaws’ living on the fringes of sedentary society. From time to time such *habiru*-people were re-integrated into society, though often rather loosely, by offering their skills (frequently as mercenary soldiers) to the society on which they sought to rely as ‘aliens’. However, the appellative interpretation of the term *habiru* seemed to produce a major obstacle for those who sought to link these *habiru* with the biblical ‘ibrim, because the latter term appeared to be exclusively employed in the biblical text as a gentilic for ‘Israelites’. More recent studies, however, have shown that the word ‘ibrim itself may have been used as an appellation, especially in the earlier ‘ibrim references of the Old Testament (i.e. Genesis, Exodus and 1 Samuel). For instance, the usage of ‘ibrim in 1 Samuel has been the subject of much debate. As the term appears to be uniquely employed by the Philistines to describe Israelite rebels and by the biblical narrator to describe auxiliary units in the professional armies of both the Philistines and king Saul, several scholars have noted its striking similarities to the usage of *habiru* in the Amarna correspondence.

Recently Rohl and Newgrosh have presented their hypothesis for dating the el-Amarna Period to the days of the early Israelite monarchy under Saul and David, a hypothesis which results from the new revised chronology for ancient Egypt currently being developed as a response to the proposals made by James et al. in JACF 1 for a general lowering of Old World chronology by at least two to three centuries. The synchronism between the el-Amarna Period and the founding of the United Monarchy in Israel proposed by the New Chronology would result in dates for the New Kingdom some 350 years lower than those currently accepted.

Rohl and Newgrosh have demonstrated that the events portrayed in the el-Amarna Letters (especially those from Palestine) show some remarkable parallels with the biblical stories in the first and second books of Samuel. As Rohl and Newgrosh themselves have stated, certain parallels are so striking that scholars working within the conventional chronology had already pointed them out. For instance, David’s freebootery in the hill country, after his flight from Saul’s court, and his allegiance (along with his band of ‘Hebrew’ soldiers) to Achish, King of Gath, are not only typical Bronze Age phenomena, but fit exactly the context of the el-Amarna *habiru* in Canaan.

It is my aim to discuss here in this paper another aspect of these striking parallels, one

Peter van der Veen has just successfully completed his degree for Licentiate in Theology at the Evangelische Theologische Faculteit of Louvain, Belgium, his thesis being entitled ‘An Investigation on the Literary Usage of *Habiru* and ‘Ibrim in the El-Amarna Letters and in I Samuel’. Mr van der Veen is an ISIS Research Associate specialising in the Early Monarchy of Israel.
which scholars have also pointed out: that the terms *habiru* in the el-Amarna Letters and *'irim* in 1 Samuel are used in precisely the same fashion. This is all the more remarkable when it is realised that the el-Amarna scribes utilised the term *habiru* in a literary sense which is unknown in any other texts from the second millennium BC where the term *habiru*/SA.GAZ occurs. Only in the period some 350 years after the Amarna Age is the term ‘Hebrew’ once more employed (in 1 Samuel) in exactly the same way, and then in an archaeological era (i.e. IA 1A/1B) when the term *habiru* had already passed out of use, having been absent from the documentation for more than 150 years.

It is evident to me that such a curious literary anomaly can only be resolved if one applies the revised dates for the Amarna Age proposed by Rohl and Newgrosch (i.e. bringing down the Amarna Period to the time of Saul and David).

**Part One**

The el-Amarna Letters

The *SA.GAZ/habiru* are attested in some sixty Amarna letters, originating from various city-state kingdoms located throughout Syro-Palestine. They cover a period of roughly thirty years, spanning the latter part of the reign of king Amenhotep III and the whole of the reign of his son Akhenaton. 4

The *SA.GAZ/habiru* (hereafter simply *habiru*) are principally portrayed as an uprooted rebellious element within Canaanite feudal society. Virtually analogous to the *habiru* mercenary soldiers from the turbulent Middle Bronze Age kingdom of Mari, 5 the el-Amarna *habiru* are predominantly depicted in the Letters as auxiliary units participating in the disputes between the rival dynasts of the Levantine city states.

 Scholars almost unanimously hold that these *habiru* mercenaries were not only closely affiliated with the competing petty rulers (causing havoc outside their own territorial boundaries), but they also appear to be the chief instigators of a ‘revolt movement’, by playing an active role in persuading certain feudal princes, and their subjects, to break away from their Egyptian overlord. As Rowton observes:

> The reason is that the *hapiru* constituted the core of the nationalistic resistance to the Egyptian sovereignty ... 6

Bottéro likewise states that:

> La chose est si vraie qu’à el-Amarna, tout au moins, nous les [the *habiru*] voyons combattre pour un certain ordre politique, et jouer de ce fait un rôle capital, puisqu’ils semblent avoir pris la tête, en Syrie et en Palestine, de la résistance à la domination étrangère du Pharaon, et du mouvement pour l’autonomie du pays. 7

As the principal rebels against Egypt’s hegemony over Syro-Palestine, the *habiru* appear to have received strong support from amongst the city rulers, as well as a number of indigenous lower-class elements (e.g. the *hupšu* - feudal peasants, and urban and tribal communities such as the Shasu, perhaps dissatisfied with the current state of affairs in the conservative pro-Egyptian feudal states in which they lived). 8

Hence we can say that the appellation ‘*habiru*’ is applicable to much the same socio-political element of uprooted ‘migrants’ as we find in other documents from the Second Millennium BC. But the Amarna Letters also show a marked literary development in the history of the appellation ‘*habiru*’. We note that the Amarna scribes, aware of the close association between the *habiru* proper and other troublesome elements in Canaan, felt free to extend the literary usage of ‘*habiru*’ to include a pejorative denoting any ‘rebel’ or ‘conspirator’ (or even ‘reprobate’) disloyal to the Egyptian authorities. 9

Rebel princes joining forces with the *habiru* are themselves frequently stigmatised by their rivals as GAZ/habiru. Taking sides with the *habiru* proper, the rebel dynast would most frequently employ *habiru* mercenaries as auxiliary units in his own army and consequently he would support them with land and towns (military quarters), battle equipment, and the civil protection of his own feudal state. For instance, Abdi-Ashirta is denigrated as a ‘dog’ and ‘*habiru*’ by his rival Rib-Hadda of Byblos, because he is seizing the towns which were loyal to Egypt. The strength of Abdi-Ashirta’s army obviously lies in his intelligent use of a contingent of *habiru* mercenaries. Rib-Hadda writes:

> What is Abdi-Ashirta, the slave, the dog, that he takes the land of the king for himself? What is his auxiliary force, that it should be strong? (Only) by means of
‘apiru is his auxiliary force strong! So send me fifty teams of horses and 200 infantry-men in order that I may resist him in Shigata (EA 71: 20-26).\textsuperscript{10}

In a similar fashion we find Shuwardata of Gath (?) using the pejorative ‘habiru’ to describe his rival, the rebel prince Labayu, ruler of central-Palestine, who has risen in arms against the land of the king (cf. EA 366:11ff).\textsuperscript{11} Labayu is said to have stationed his habiru forces in the land of Shechem (cf. EA 289:18-24), and these same habiru soldiers were probably used by Labayu against his rival, Biridiya of Megiddo, (cf. EA 243 and 244). Labayu’s sons and their ally, Milkiyu of Gezer, continue to employ habiru mercenaries among their auxiliary military units (along with contingents of Sutu soldiers cf. EA 246: Verso 1-11), and, as Greenberg has argued, they assign/give (na-ad-nu) land to their habiru groups, just as Achish of Gath gives (Heb. natan) the city of Ziklag to serve as a military base for David and his followers (cf. EA 287:25-32).\textsuperscript{12} Apart from towns and lands being given to the habiru, we find that the cities of Gezer, Ashkelon and Lachish give oil and food supplies to them (cf. EA 287:10-19), and Biridashwa (prince of Ashtaroth?) provides the habiru with war-chariots (cf. EA 197-5-12).

Finally, there is Amanahabi of Tushultu who is accused, by his rival Mayarzaana of Hasi, of having paid homage to rebel habiru soldiers, and is consequently denigrated as an ‘habiru’ himself (EA 185:42-75 ‘a LU.SA.GAZ m a-ma-an-ha-at-pê’).

Besides the involvement of the local dynasts with habiru soldiers, we learn of various elements of low-class people joining forces with the habiru proper. We frequently hear of lands and towns defecting to the enemy. A favoured expression of the pro-Egyptian scribes is that lands, towns and peoples ‘have become habiru’ (epeshu N + ana habiru) which Mendenhall interprets to mean that ‘they have defected from their political allegiance by joining a conspiracy-revolt movement’\textsuperscript{13} For instance we read in EA 288: 41-47 (from Abdi-Heba of Jerusalem):

Behold, Zimredda, the (sons of) Lachish smote him, slaves (or servants - ardutu mes) who have become Hapiru (ip-šu a-na lu mes [h]-a-[B]-I-[r]-t).\textsuperscript{14}

The fact that Abdi-Heba considers the townspeople of Lachish to be servants/slaves permits us to understand that the rebels are feudal subjects.\textsuperscript{15} The same word ‘arduatu’ is used by Milkiyu of Gezer to denote his rebellious feudal subjects whom he otherwise denigrates as ‘the habiru power’ (EA 271:9-16; cf. ‘our servants - arduatu mes-nu’ line:21).

Further, we find Rib-Hadda of Byblos faced with his feudal population defecting to the side of the habiru enemy:

... the hostility is powerful against me. I fear my peasants (hu-up-si-ta). So I have written to the palace for a garrison and men of Meluha [i.e. Egypt] ... Let the king send garrison troops and men of Meluha to guard me, lest the city joins with the ‘apiru (EA 117:89-94).\textsuperscript{16}

and EA 77:37 reads:

Behold, I am afraid that the peasants may smite me.\textsuperscript{17}

We may conclude this section of the discussion by stating that the term ‘habiru’ is used in the Amarna Letters (a) in the traditional fashion - as an appellation denoting habiru mercenaries/forces (always in a warfare context); (b) as a pejorative used by Egypt’s vassals (and their scribes) to denigrate rival dynasts (shown throughout to be closely affiliated with habiru auxiliaries); and (c) for low-class elements joining the overall habiru revolt movement.

\textbf{Part Two}

The ‘ibirim in the First Book of Samuel

The word ‘ibirim occurs eight times in the Hebrew text of 1 Samuel; that is five times as used by Philistines to denote their rebellious Israelite neighbours (cf. 1 Samuel 4:6 & 9; 13:19; 14:11; and 29:3) and three times as used by the biblical narrator to describe auxiliary units fighting in the professional armies of the Philistine Seranim and the forces of king Saul (cf. 1 Samuel 13:3 & 7; and 14:21). All of these ‘ibirim references are clearly found in a context of warfare.

The author(s) of 1 Samuel seems to have produced his work at a time near to the events he describes in the book. This is particularly obvious from the way he utilises the term ‘ibirim compared to the variety of connotations which are familiar to us from the el-Amarna Letters.\textsuperscript{18} It occurs to
me that the term under discussion is employed in 1 Samuel exclusively as an appellation, just as was the case with the term ‘habiru’ during the Second Millennium BC.

However, a number of scholars have advocated that the term ‘ibrim’ in 1 Samuel is to be understood as a gentilic or synonym for ‘Israel’ or ‘Israelites’ wherever the word is found in this book. Although I would agree that the gentilic interpretation of ‘ibrim’ makes good sense in some of the later books of the Old Testament, where the word is used to denote the national status of one Israelite or Jew (e.g. Jonah 1:9 and Jeremiah 34:9), I believe this position to be untenable as far as the book of 1 Samuel is concerned. For instance, it is certainly no mere coincidence that the term ‘ibrim’ is nowhere found in the narrative section as a straightforward self-designation for ‘Israel’ or ‘Israelites’. One notes also that those called ‘ibrim’ by the Philistines are consistently referred to as ‘Israel’ or ‘Israelites’ by the narrator in the immediate context. The term is also completely absent from chapters 15-28, where the orientation of the story has been dramatically changed — that is, the narrator is preoccupied with the enmity between king Saul and his rival David.

So we can say that when the word ‘ibrim’ is used to describe ‘Israelites’ it is exclusively found to be the term used by the Philistines to denote their Israelite enemies. The German scholar, Koch, consequently concludes that the Philistines employed the term as a gentilic, simply because they knew no other name for their eastern neighbours from the hill country. However, this position cannot be justifiably maintained for the very reason that the terms ‘Israel’ and ‘people of Israel’ are used three times by Philistines for their Israelite neighbours (i.e. once by Goliath in reference to the military ranks of Israel, and twice by Achish of Gath for the people of Israel and their king, cf. 1 Samuel 17:10; 27:12; and 29:3).

It has been the opinion of a number of respected Amarna scholars that the term ‘ibrim’, as used in 1 Samuel, should be taken instead as a straightforward socio-political appellation — that is, to take it as the Hebrew cognate of the Akkadian term ‘habiru’ (or its Ugaritic and Egyptian equivalents - ‘pmr’ and ‘prw’ respectively). Indeed, the term ‘ibrim’ in 1 Samuel has the breadth of the term ‘habiru’ in the el-Amarna Letters — that is, it is used for ‘habiru auxiliary units’ fighting in the armies of the competing dynasts (both on the side of the Philistine feudal lords and under king Saul) and also for the Israelite masses in revolt against Philistine feudal hegemony.

The most striking text in favour of this appellative interpretation of ‘ibrim’ comes from 1 Samuel 14:21-22:

And the ‘ibrim’ who had been with the Philistines previously, who had gone up with them into the camp, they too turned to be with the Israelites who were with Saul and Jonathan. When all men of Israel who had hidden themselves in the hill country of Ephraim heard that the Philistines had fled, they too pursued them closely in the battle.

Weippert is undoubtedly right when he says:


I concur with Weippert when he states that the ‘ibrim’ here are clearly distinguished from the Israelites, and that the term may well refer to habiru groups. Thus, the Philistine lords, going to war with his ‘ibrim’ auxiliaries, were then directly analogous to the feudal dynasts in the Letters who employ habiru mercenaries in their contests with rival neighbours. The fact that we may find here a reference to a typical Bronze Age habiru mercenary unit may be further substantiated by the following evidence. The biblical narrator notes in 14:22 that the Philistine army fled at the very moment that the ‘ibrim’ auxiliaries defected to the side of the victor, king Saul. Gray notes that: ‘the ‘ibrim’ seem actually to have turned the tide of battle.’

The habiru expertise in warfare was widely appreciated, and their battle ranks supplemented greatly the strength of the army on whose side they chose to fight. But, as such, habiru military groups were ‘only loosely integrated into the general society [i.e. as they offered their services by voluntary decision], the ‘apiru, constituted an uncertain factor which every dynast had to watch, even as he employed them.’

With the habiru mercenaries defecting to the side of his rival, the local dynast would be deprived of an important element in his professional army, and consequently, ‘the ‘apiru could tip the balance of power one way or another’. Weingreen notes that precisely this situation may be reflected in the passage under discussion:

... it must have been clear to all concerned that the balance of power between the Israelites and the Philistines could be tipped
either way by the added weight of the *Habiru* irregular army.\(^{26}\)

I have already noted elsewhere that *habiru*/*ibrim* auxiliaries had served king Saul prior to the major defection of the Hebrews to the side of the Israelite army in 1 Samuel 14:21-22.\(^{27}\) Skilled professional warriors are to be found in Saul’s close entourage from the beginning of his reign (1 Samuel 10:26) onwards (cf. 14:52). We find that in the entire section of chapters 13-14 *ibrim* irregulars have an important role to play in the revolutionary politics of king Saul’s reign.

It is by exploiting the fighting skills of his *ibrim* forces (i.e. the nucleus, if not the major part, of his standing army of professional warriors based at Gibeath of Benjamin, 1 Samuel 13:3) that Jonathan is able to smite the Philistine governor (*nesib*) at Gibeah (the noun *nesib* may also translate as ‘garrison’ or ‘pillar’). Saul blows the *shophar*, upon hearing the good news, in order to report it throughout the land: *the *ibrim* have revolted* (LXX: *etethekasin*). And all Israel heard [the news] saying: "Saul has smitten the Philistine governor ..." (13:3-4a). Then the news about the rebellion at Gibeah reaches the Philistines in the Shephelah and in the coastal region. The Philistine lords interpret the uprising of Jonathan and his *ibrim* as a major threat to their control over the hill country and, consequently, they march to Michmash with some 3000 chariots and 6000 infantrymen. The Israelite army, confronted with the Philistine advance, retreat into the hills, leaving Saul to face the enemy at Gilgal with a handful of his faithful warriors. The Israelites seek shelter in caves and thickets, etc. (13:6). The narrator notes that even some of Saul’s *ibrim* irregulars cross over to the land of Gad and Gilead beyond the River Jordan.

Both Millar, and recently McCarter Jr., have argued that Saul and David were typical *habiru* gang leaders ‘capable of resisting, evading, and otherwise reckoning with more powerful enemies’ such as the Philistines.\(^{28}\) This is certainly a very striking parallel to the el-Amarna *habiru* chieftains.

Not only do we find that *habiru* mercenaries were affiliated with rebel princes in both the Letters and in 1 Samuel, but, in both sources, they are also found to have played a major role in the overall revolt movement directed against the ruling class in Canaan. Wright has argued that the Philistines were also Egypt’s vassals,\(^{29}\) and, if this is correct, we may assume that the *ibrim* elements of 1 Samuel were in revolt against exactly the same imperial authority as their ‘predecessors’ in the Amarna Period.

We shall now deal with the term *ibrim* as a pejorative used by the Philistine rulers to describe their rebellious Israelite subjects.

We have noted in the first section of this paper that the el-Amarna scribes applied the traditional appellation *‘habiru’* to all of Egypt’s enemies who were in some way or other affiliated to the *habiru* proper. The term also came to be used as a pejorative, denoting ‘rebel’ or ‘conspirator’ against Egypt and the local vassal princes of Syro-Palestine. This literary usage of *habiru* is clearly analogous to the Philistine usage of the term *ibrim* in 1 Samuel.

The Philistines, like the Hurrian (or Indo-European) and Canaanite feudal lords of el-Amarna Canaan, consistently employ the term *ibrim* as a *pejorative* for their rebellious Israelite feudal subjects who have risen in arms against them, chiefly under the capable military leaderships of Saul, Jonathan and David, along with their *habiru*/*ibrim* mercenary forces.

Fortify yourselves and be men you Philistines, lest you will serve the *ibrim* just as they were servants to you; be men and make war. [1 Samuel 4:9]

And a blacksmith was not found in all the land of Israel, for the Philistines had said: "lest the *ibrim* make (for themselves) swords or spears," and all Israel went down to the Philistines to sharpen each man his plough-share, his mattock, his axe and his reaping hook (cf. LXX: *to drepanon autou*). [1 Samuel 13:19-20]

Most likely through their contact with the Hittites from Anatolia, the Philistines (who themselves originated from the Aegean) had acquired skills in iron smithing.\(^{30}\) 1 Samuel 13:19 indicates that the Philistines kept all maintenance and servicing of weapons and implements [of iron] in their own hands,\(^{31}\) so that they could assert their hegemony over the ‘Late Bronze Age’ Israelites in the hill country.

And the two of them [Jonathan and his weapon-bearer] revealed themselves to the Philistine garrison, and the Philistines said: "Behold, *ibrim* are coming out of the holes where they hid themselves." And the men of the garrison answered Jonathan and his weapon-bearer and said: "Come up here to us and we shall teach you a lesson" (lit. ‘something’). [1 Samuel 14:11-12a]

The Philistine garrison at Michmash, underestimating Jonathan’s military versatility and personal bravery, compare him and his weapon-bearer with
the ‘men of Israel’ of 1 Samuel 13:6, who had hidden themselves in caves and thickets in fear of the approaching Philistine army. Consequently, the haughty Philistine response to the approaching rebels is to call them weaklings and reprobrates. The overtone of contempt in 14.11 is so striking that Weippl singles it out for comment:

Doch gibt vielleicht das eben festgestellte Element der Verachtung, das in 14.11 besonders deutlich ist, einen Hinweis, wenn wir uns erinnern, in welchem Ton Rib-Hadda von Byblos von den ‘apiru seiner Zeit, den anti-ägyptischen Rebellen, als von ‘Hunden’ sprach.\textsuperscript{52}

The Philistine warlords had always regarded the Israelite folk of the hill country as their lawful serfs/slaves (Heb. ‘ebadim, cf. 1 Samuel 4:9), and it continues to be their aim to return these rebellious subjects to their earlier status (cf. 1 Samuel 17:9). We noted earlier that, in the Letters, the rebel townsmen of Lachish, as well as the rebellious population of the city state kingdom of Gezer, are stigmatised both as ‘arduut’ (an Akkadian word for servants or slaves) and ‘habiru’.

The striking analogy between the usage of habiru in the Letters, and ‘ibrim in 1 Samuel has been the subject of an ongoing debate. Na‘aman concludes:

The scribes of the Amarna letters used the appellation ‘habiru’ in a similar way as both a 
\textit{derogatory term} indicating scorn and as a 
label for all real and ostensible rebels against the Egyptians and their allies among the city-state rulers of Canaan.\textsuperscript{33} [my emphasis]

Gottwald takes this further by linking the term to the Israelites of the Judges period and the early Monarchy period:

This is best explained by the continuous living tradition of contempt toward ‘apiru, passed along from the Amarna imperial-feudal establishment to the Philistines when they inherited that establishment from the Egyptians. The term ‘apiru still carried wider 
\textit{pejorative aura} of meaning which aptly branded the Israelites as arch-rebels against the imperial-feudal order.\textsuperscript{34} [my emphasis]

However, Gottwald’s explanation as to how the term ‘habiru’ passed from the Amarna imperial-feudal establishment down to the Philistine era is not very convincing. The ‘wider ... meaning’ of ‘habiru’, denoting ‘rebels’ and/or ‘conspirators’, appears to be characteristic only of the el-Amarna Letters. Whereas, as I have discussed elsewhere,\textsuperscript{35} the same appellation is normally used in contemporary sources (in the Hittite, Ugaritic and earlier Egyptian documents of the 14th-13th centuries BC) to describe a traditional socio-political element in the region. It is therefore a curious phenomenon indeed that the term ‘ibrim in 1 Samuel should be used by the ruling class of 11th century Philistia in precisely the same way as ‘habiru’ is used by the ruling class of Amarna Age Canaan, some 350 years earlier.

Hardly less curious are the references in 1 Samuel to the ‘ibrim/habiru mercenaries fighting in the professional armies of the Philistines and of king Saul. For it is generally accepted that the socio-political appellation ‘habiru’ had disappeared from contemporary documents by the time of the transition from Late Bronze IIB to Iron Age I at the latest (i.e. c. 1200-1150 BC), some 150-200 years before the events portrayed in 1 Samuel.

I will close by reiterating the obvious: that the issues raised by the ‘habiru’ problem are best resolved within a scheme which lowers the dates of the New Kingdom in Egypt by some three and a half centuries (as in the New Chronology). I believe that the evidence presented in this paper is in support of the hypothesis that the Amarna Age was largely contemporaneous with the reigns of kings Saul, Ishbaal/Isbosheth and David - a scenario which has been cogently demonstrated by Rohl and Newgros and their paper ‘The el-Amarna Letters and the New Chronology’.

Notes and References

1. It has been established beyond doubt that the logogram SAGAZ represents the appellation ‘habiru’ in most cases rather than the term ‘habbutu’ - ‘robber’, ‘bandit’. Cf. my discussion of these terms in: P. G van der Veen: ‘Samuel and the Habiru Problem’ (Leuven, 1989), pp. 1-2 (unpublished Thesis (L. Theol.)).


5. P. G. van der Veen, op. cit. [1], p. 39.


10. M. L. Chaney: op. cit. [8], p. 79.


JACF VOL. 3

77
20. Cf. 1 Samuel 4:9-10; 13:19-20; 14:11-12; and 29:3ff.
21. K. Koch: op. cit. [19], p. 44.
27. P. G. van der Veen: op. cit. [1], pp. 20-23.
32. M. Weippert: op. cit. [22], p. 89.
34. N. K. Gottwald: op. cit. [9], p. 422.
35. P. G. van der Veen: op. cit. [1], pp. 41-43.

ISIS - The Institute for the Study of Interdisciplinary Sciences

Patrons
Sir Dermot de Trafford, Bt.
Ivor Richards

Directors
George Hart & David Rohl

Board of Trustees for 1989/90

Chairman: Sylvia McFarlane
Treasurer: Alan Newby
Secretary: Valerie Pearce

Jill Abery Tricia King
John Milson Geoffrey Mulcaster
John Feet Ivor Richards
David Roth Mike Rowland

Overseas Representatives

North America: Professor Daniel Kline, 933 Avondale Avenue, Cincinnati, Ohio, 45229, USA.
Australasia: Lester Mitcham, Unit 7, 29 Owens Road, Epsom, Auckland 3, New Zealand.
Europe: Birgit Liesching, B.P. 21, B-1040, Brussels-26, Belgium.

Founder Members
Geoffrey Barnard Dr Elspeth Cunningham
Dr Otto Ernst Professor Alfred de Grazia
Geoffrey Gammon Ian Johnson
Professor Daniel Kline Birgit Liesching
Bruce Mainwaring Valerie Pearce
Ivor Richards David Roth
Derek Shelley-Pearce Ken Thornton

Copyright © The Institute for the Study of Interdisciplinary Sciences 2005 – all rights reserved