

EXAMINATION OF SOME MISINTERPRETED STATEMENTS in KITES AN HISTORICAL SURVEY

Author : **Clive HART**
(1931-2016)

First edition 1967

196 pages, hard cover

4 color images
70 B&W images
111 figures in the text

12 chapters within 154 pages.

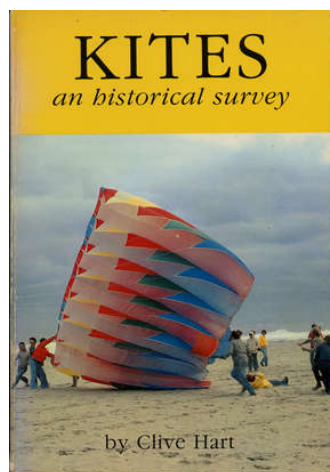


Republished 1982

210 pages, soft cover

No color images
88 B&W images
128 figures in the text
12 chapters within 165 pages.

This second edition has lower quality of paper and of print than the first edition.



Contents

12 chapters plus :
acknowledgments, contents, foreword, preface, plates, chronology, bibliography, index.

Chapters I to IV describe kites in China, Eastern Asia, Pacific, Europe.

Chapters V to VIII are the development of kites in western countries and America until the airplane human flights.

Chapters IX to XII are the kites and kiting techniques and applications after the first world war up to the 80's.

In the Preface to the Revised Edition, page 19, Clive Hart explains the changes between the two publications :

" I have made only a few changes in the chapters on exotic and modern kites.

Elsewhere the changes range from the correction of occasional typos and small factual errors to the complete rewriting of Chapter 4, 'Early European Kites'.

Many new plates and figures have been introduced, and I have appended to the original bibliography a check-list of additional material mainly relevant to the prehistory of kites."

In the first edition there were some confusions, shortcomings or misinterpretations.

In the second edition the re-writing of chapter IV has bring more misinterpretation, which is normally inconceivable.

The misguided statements which we have noticed are described herebelow.

NASA hang glider

On the back of the first edition, NASA's motorized hang glider is an unexpected intruder. Designed as a new glider and tested with a traction cable, it is impossible to pilot it in the wind with a cable attached to a fixed anchor.

But of course, modern kites can copy aeronautical machines and fly them like kites.

This one is not a misinterpretation some kind of miscast.

Origin of kite

There is much speculation about the origin of the kite.

First sentence of first paragraph of Chapter 1, Origins ; China, page 23, is :

The place of origin of the kite is fairly certain : China.

However, this common knowledge is not an historical evidence and is denied by the logical one where origin of kite is Indonesian Islands. Of course, the oldest kite which can be seen is in China and the oldest documents on kites are also in China. But that is not the evidence of the invention of the kite.

Clive Hart has tried to set the technical origin of kite from pennon either in China and Europe, but fails this demonstration in the chapter 4. He attempted to overcome that by re-writing the chapter 4 in the 1982 edition, but it has not been better, even worse, as the della Porta kite has been completely misinterpreted (see topics below § Pennon kite and § della Porta kite) Furthermore the confusion on kites fig. 1 and fig. 4 adds concern (topic herebelow also).

After the chapter on Other Eastern kites, Kite fishing and the Pacific kites are discussed in the Chapter 3. Thus these chapters looks like a chronological order when, in fact, they are not. It is true that kites have migrated from China to Korea and to Japan (except the Hata Nagasaki kite), but it is untrue for other countries (see topic below § Spread of the kite). Obviously, the work is not organized on a time line as expected in historical matters, but the way it support the two main statements, origin of kite and pennon-kite.

In this work there are few informations on dates. The Summary Chronology at the end of the contents give dates mainly for China and Europe kites and lack the outcoming of kites in other countries.

It's a pity that having concentrated his work on the "*very early history of the subject*", Clive Hart didn't made a deep investigation and balance of other options. By maintaining an assessment which remain an hypothesis without any logical evidence and missing factually to demonstrate that the origin of kite is in China, the final evidence is that China could not be the place of origin of the kite.

But admit it would have destroy Clive Hart's "*own speculation on this matter (...) on the similarity of the kite to the pennon*".

Clive Hart published in 1964 "Your book of kites" on kite materials, construction, kiting. There has been a second edition in 1970 and a reprint in 1973. In the first paragraph it is printed :

"No one knows who invented kites. In some parts of the world they have been flown since prehistoric times -- especially in eastern Asia and the Pacific islands."

In this publication China is not mentionned at all.

In 1972, Clive Hart published 'The dream of flight'. Chapter 3 'Banners, Windsocks and Flying Dragons' and chapter 4 'Kites' were already the precursors of the 1982 edition. In fact these two chapters are clearer than in 'An Historical Survey'. The chapter 'Kites' presents different options on the origin of the kite and its development in Europe.

He wandered and is mistaken with the 'Pennon-kite' and he is wrong about the kite of Della Porta, error that he will take again in the 1982 reissue (see below).

Expansion of the kite

Page 31, the paragraph 'The distribution of the Eastern kite before A.D. 1600', it is written :
"Soon after the appearance in China the kite spread to neighbouring countries (...) and it spread south and west into Burma, the Malayan peninsula, Indonesia, and India. The date of the spread is uncertain, but the kite seems to have been known in the Malayan area for at least two thousand years. It passed very early into the culture of Polynesian, as far east as Easter Island (...)."

At the end of this chapter, a world map shows the distribution of the eastern kite before A.D. 1600 where all arrows start from China.

It is unlikely that a sophisticated Chinese kite made of engineering materials (sticks, paper, silk) would have led to a primitive kite made of natural materials. But the other way, it will.

Since the Occidental world has discovered the existence of kites made of natural material by fishermen in the Indonesian and Pacific Islands, it has also brought the evidence of oral and perpetuating traditions of old civilizations which are able to survive thousands of years until now. Thus the evidence is that the Pacific kites have passed to the South of Asia and then have developed in China.

So several arrows on the distribution map before A.D. 1600 have to be reversed to show the correct distribution.

Wrong designation of kites

In the first chapter [Origins ; China], fig.1 and 4 are not Chinese kites.

Fig. 1 "Probable shape of the earliest Chinese kites"

There are no rectangular traditional Chinese kites.

The frame of this kite is a kaku dako, traditional Japanese kite, made of paper and bamboo. Dated from the 7th century they would be the first kites made of washi paper. It is flown with one to three tails and different fastenings of the tails to the frame.

This wrong origin of the rectangular kite is repeated in Chapter 2 about Japanese kites. The only flat Chinese traditional kite with a geometrical shape is the octagonal kite which has two or three tails. One thousand years ago it was more like a square with 4 small extensions centered on each side. The frame was four radial sticks. Then the frame has become two squares of sticks at 45° plus a central cross, making a full octogone. It is known as 'Eight Diagrams' kite.

Fig. 4 "Typical Chinese kite with hummer attached"

No such kite is found in the traditional Chinese kites.

This kite is the 'Pecukan' Indonesian kite, flown with hummers (Guangan), popular in Bali.

The Vietnamese Hong Ha kite of the Ba duong Noi village has a more elongated shape. Note also that the Janggan (Indonesia), the Wau Bulan, (Malaysia) and the Chula, (Thailand) have their main sail with the same shape than the Pecukan..

Unfortunately, Clive Hart usually doesn't indicate the sources of the figures. But we can see these two figures reproduced in the David Pelham's Penguin book of kites (1976) pages 10 and 11, with the same comment than Clive Hart.

It's a pity that on five figures on Chinese kites two of them are mistakenly identified.

Pennon kite

Clive Hart is convinced that the origin of kite is a technical variation of pennons, or windsocks, streaming at the top of a pole.

In the first paragraph of Chapter 1 page 23 he wrote :

My own speculations on this matter have centred on the similarity of the kite to the pennon or banner, and on the custom in many places of allowing banners to stream out in the wind either from a chord or from a flexible rod.

In chapter 2 in the part about Japan there is this comment page 44 :

At the Boy's Festivals there is also a widespread custom of flying quasi-kites which are really windsocks in the form of carp, recalling the hollow dragons of medieval Europe.

The Japanese windsocks 'Koïnobori' have never been changed to become kites.

Edition 1967 :

Last paragraph page 62, Clive Hart propose 3 different "kite-objects" which are :

- the hollow "semi-kite", which is not a kite but a windsock which may have small wings.
- the "*modern plane-surface kite of rectangular or rhomboidal shape, equipped with a tail*".
- the "pennon-kite", "*a plane-surface kite of a different character*".

The description of the pennon-kite is, page 68 : "*this has, in plan view, the same general appearance as the hollow dragons, but is flat, part of it being held rigid by means of a rigid skeleton*" (the hollow dragon is a windsock).

Furthermore, page 69, last paragraph : "*Although this flat, pennon shaped dragon may represent the marriage of the winged windsock and the plane-surface kite, we cannot ignore the possibility that we are here dealing with an entirely independent European invention. Again, it is conceivable, though unlikely, that the pennon -kite is itself a pure importation, distinct from the other two kinds of kite.*"

All this resume the Hart's tenet.

The following pages present the della Porta's kite (see next topic) and then, pages 72 to 80, several dragon and diamond kites, all together trying to demonstrate the passage from the pennon-kite to the kite. Lets' say it is not convincing at all.

1982 reprint :

The chapter 4 differs completely from the first edition. The change start page 62, one paragraph after fig 30 (same as fig.28 of 1st edition) with this assessment :

"The story of European kites may be said to begin with an unlikely object, the spectacular draco, or windsock banner, (...) It consisted of a carved open-mouthed head, of dragon-like appearance, attached to the top of a pole."

Several pages continue on the dragon windsocks and those with fireworks. Page 69, first line : "*A possible source of confusion of windsocks and plane-surface kites is to be found ...*"

After that, the last paragraph of page 69 starts the pennon-kite discussion :

"Whatever the origin of the pennon shaped kites seen in the fourteenth- and fifteenth-century manuscripts, their physical existence in medieval Europe is beyond question." Page 70 fig.35 is the presentation of the kite drawn and described in the De Nobilitatibus (1410), followed until page 72 by a text of the Vienna Codex 3064 (1430).

There are then almost six pages of discussion about drawings and texts of medieval and Renaissance times to determine if they are either a semi-kite or a pennon-kite.

Page 78 begins the discussion on the next centuries : "*During the sixteenth and seventeenth centuries plane surface kites both of the dragon-shaped type and the better known pear and diamond shapes became increasingly common and it is during this period that an undoubted element of confusion arose with the older idea of a three-dimensional windsock.*"

Next pages are on windsock and three dimensional structure dragons being considered as kites, but which we know they are unable to fly, even more with the materials used at that times and despite the addition of some wings.

Page 84 to 86 is the della Porta's 'flying dragon'. Unexpectedly it is now a cross stick structure with a dragon shape. See more in the next paragraph.

The chapter ends with 6 pages similar to the first edition..

Comments :

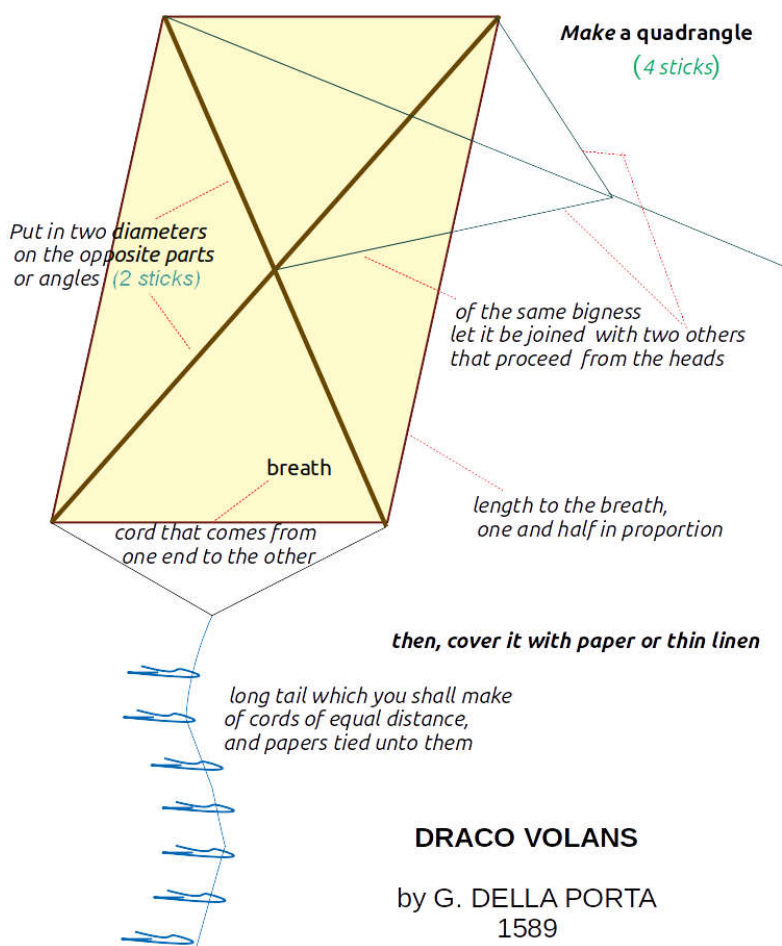
32 pages of a whole chapter without clear sub-parts is confusing. The author suggest an evolution of European dragon windsocks towards a flat dragon-kite.

It would be more appropriate to say that until the 16th century kites were named 'draco', 'dracon' in greek, or 'cometa' in Latin, 'dragon' in French. In English 'Kite' comes from the bird milan and appeared in the 1660's. The French 'cerf-volant' is first written in 1669. In Italian 'cervo-volante' was used before to be replaced by 'aquilone' in the XXth. In Spanish the latin word 'cometa' has been kept. In Deutch 'drachen' has always been used.

Because windsocks were used by the romans army and named 'drago' for a while, there has been a confusion between the dragon as a windsock or as a flying object. Many illustrators have never seen a kite flying, which explains the uncertainty of many drawings, sometimes a mix of kite frame and dragon shape. It explains also the often wrong bridles.

Della Porta's kite

The kite Della Porta, 'draco volans' is described in his latin book 'Magia naturalis' (1558). An English translation, 'Natural Magick', (1589) called it 'flying dragon'. This hereunder drawing (2017) shows the 'draco volans' kite and citations from the translation of 1589.



Edition of 1967

The kite is rectangular. Fig. 34 show the bridle rightly mounted. The alternative construction fig.33 and the tail fig.35 are wrong but acceptable to fly it. C. Hart comments as follows :

"The source of della Porta's kite is unexplained."

"The kite is of quite a sophisticated design, recalling the old rectangular Chinese models."

" ... there can be no question of his having evolved such an elegant piece of apparatus for himself, stating from, say, the pennon kite."

About the frame : "The description is somewhat ambiguous..."

About the tail : "The description of the latter is difficult to interpret..."

So he complains : "*The inaccurate English translation of della Porta, published in London in 1658, does not use the word 'kite', but gives the literal equivalents of Porta's terms : 'flying Dragon', 'Comet', and 'flying Sayle'. like the draughtsman of Bat's kite the translators are baffled by the bridle, the description of which they turn into nonsense.*" NB Sayle = sail.

We know that the rectangular kite is not Chinese but is the Japanese kaku dako. The complain on the translators is unjustified. Clive Hart, as a specialist of European literature with specialty in medieval age and Renaissance, should have been able to read and understand the latin version or ask somebody to help. Having myself a latin education I can confirm that the translation is correct. He should have known or check that the word 'kite' to design the flying model is found for the first time in 1659 in the English literature.

Edition of 1982

This time, the rectangular "draco volans" takes the shape of a dragon!

Clive Hart wrote : "*The description is somewhat ambiguous but it is clear that a design in the eastern style, rather than a pennon, is intended. The passage served as the basis fo most of what was written about kites for the next hundred years or more.*"

After the copy of an interpretation of the translation in a modern English, C. Hart wrote : "*The description is rather vague, and there is some ambiguity in the wording of the passage about the bridle. The general form of the construction was probably as shown in Figs. 47 and 48, while the bridle was presumably to be attached as in fig. 49. An inaccurate English translation, published in 1658 ...*" (end of the sentence same as as 1967).

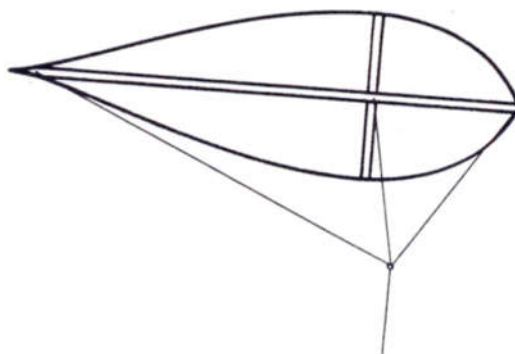
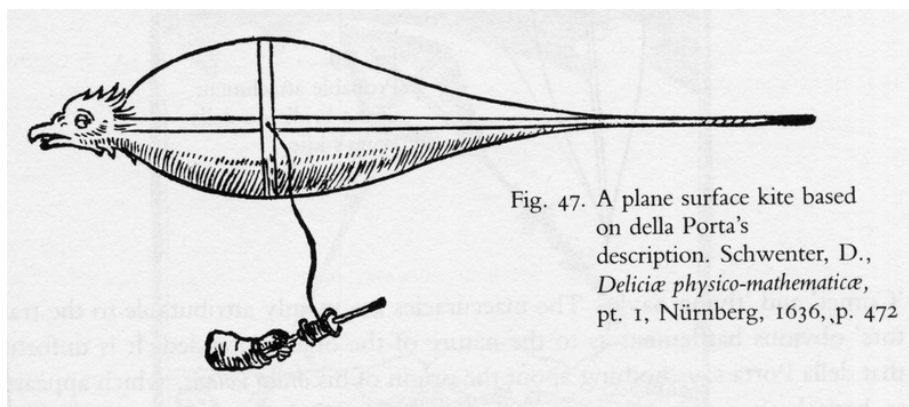


Fig. 49 Probable attachment of the bridle on della Porta's kite.

How the description of four sticks for a 'quadrangle', two sticks for 'diameters' (or cross) and a tail could be a kite with 2 sticks and no tail as seen on these above figures?

The new part on the della Porta's kite in the edition of 1982 is irrelevant and a full disaster.

Meteorological kites

In this chapter there is no mention of the kites of the German meteorologist Wladimir Köppen at Hamburg and of the kites of French meteorologists in the late nineteenth century.

Kite aerial photography

The aerial photography with kites is only 11 lines, without mention and paying tribute to A. Batut for the invention. These 11 lines include these ones :

"Most of the literature on kite photography has only historical interest. Photography from aircraft has made the technique obsolete and, in any case, the development of smaller and lighter cameras has made the often cunning suspension devices no longer relevant. "

What is the purpose of an historical survey if it is not to mention the historical events the way they happened? This is totally incomprehensible.

Theory of kite

As an aeronautic object which have contributed during the pionner period of the manned flights to the interest for the conquest of the air, the science applied to the kite is not to be missed. So the history about the theory of the kite was expected in such an historical survey. All what have been found is as follows.

In the bibliography there are sometimes notes added to the references. The most amazing is the one about E. Bertinet, *La théorie élémentaire du cerf-volant 1887* : "*Of no importance*". Bertinet's work is the first scientific issue on the equilibrium of the kite and is not mentionned elsewhere in the book. Then, T. Bois, who restated and completed with practical applications Bertinet's theory, has his book indicated as "*work of special importance*".

There are references to other practical experiments in the bibliography, but nothing else. Missing such a topic is amazing.

Conclusion

Not having the deep knowledge of all the topics of this book, only those where we found there are misinterpretations or lacks of basic information have been highlighted.

This book is usually considered as a reference on the history of kite, but this show it is not.

Moreover, it had not that purpose as in the introduction, Clive Hart wrote :

"A really thorough study of the kite would need an historian expert in a dauntingly large number of fields." These fields are listed : aeronautics, anthropology, mythology, travel throughout oecania, languages including Japanese, Mandarin and polynesian. So, he added *"This book is not, therefore, specially oriented towards any of the above fields. It is rather a general introduction to the subject in all forms."*

Unfavourably, speculation on the origins and on the pennon-kite have badly overwhelm the historical discourse. These failures and historical loopholes have brought doubts on the other assessments, their verification and their truthfulness.

Unfortunately nowadays, there is no other alternative as historical study on kite. So the reader shall be cautious for his own learnings and conclusions.

It remains a huge collection of informations through all clues and a large bibliography which will be very helpful to any interested and inquisitive person.

Christian Becot, 2020, May 10th

http://becot.info/opus/anglais/opusE_Hart-survey.htm