

Historical Reflections*

*Reprinted courtesy of Leonard E. Opdycke, *World War I Aeroplanes*

by Philip Jarrett

*Teach not thy parent's mother to extract
The embryo juices of the bird by suction.
The good old lady can that feat enact
Quite irrespective of the kind instruction.*
—Anon.

What follows may be regarded by some as teaching grandmothers to suck eggs. However, to judge by the vast majority of written material that masquerades as "history," there are a lot of authors who really don't know the meaning of the word. These notes are the result of my own self-interrogation. Many researchers and writers probably won't be interested, but if my observations serve to make a few people think about what they are doing, then perhaps my efforts will not have been wasted.

Some years ago it became obvious that annals, chronicles and records were merely the basis for the real work of interpretation, analysis and appraisal. I wanted to know what history was, its function, and its disciplines. The books which I read (listed at the end of this article) brought me face to face with widely differing opinions, but all made it obvious that the practice of history went far beyond the mere accumulation of facts.

Many of the examples I give will be taken from my own experience, because that is how I learned some of the lessons. If they seem obscure or particular, then I hope the reader will bear with me, for I feel that learning by example is the best way. What follows is one man's way of seeing things; I make no apologies for any opinions with which readers may disagree. Doubtless there are those with completely different conceptions, and I hope that they, too, will offer their contributions to this fascinating subject.

FACTS

"... while history will rarely be able to say: this is the truth and no other answer is possible; it will always be able to say: this once existed or took place, and there is therefore a truth to be discovered if only we can find it."
—G.R. Elton¹

Facts alone are not history. Facts, along with artifacts, form the skeleton upon which history is built. It is the historian's task to provide the tendons and ligaments of causation and interpretation which unite the facts in a logically comprehensible whole. Some maintain that facts as such do not exist in history because "all history is based on hearsay. Reportage is the impression of one man of an event or an object. If there are many witnesses there will be many varying reports, only the object itself, such as a war or an accident or a mechanism, is unequivocally established" (*Aerospace*, May 1970). But simple basic facts *do* exist. This is not to say that they are all-powerful and unalterable, and

they should not be set upon pedestals and worshipped as the gods of history. The facts are always there—fallible and open to question, maybe, but they are the foundations of history, the basic building blocks.

Only when his basic research and fact-gathering is done can the writer perform the higher functions of reasoning, theorizing, interpreting and analyzing which are the disciplines of true history. The questions arise when he attempts to evaluate the facts or events and assess their impact upon contemporary or subsequent developments.

Carr says: "To praise a historian for his accuracy is like praising an architect for using well-seasoned timber or properly mixed concrete in his building. It is a necessary condition of his work, but not his essential function."² Therefore, every accurate annalist or compiler is not necessarily an historian. In fact, in the sphere of aeronautical history there are very few who qualify as historians in the truest sense of the word. Many writers fall flat on their faces when it comes to getting their facts right (I make no pretensions to infallibility—it is a matter of degree!) This often happens simply as a result of idle research. The only way to approach the true facts is by tracking information back to its source, or as far back as possible. "The duty of the historian to respect his facts," says Carr, "is not exhausted by his obligation to see that his facts are accurate. He must seek to bring into the picture all known or knowable facts relevant, in one sense or another, to the theme on which he is engaged and to the interpretation proposed."³

However, as G.R. Elton points out, "Historical facts are knowable only by the evidence they leave behind, and in many cases that evidence is not clear-cut . . . this is not a question of interpreting fact but establishing it, and the differences resulting are likely to be differences in the degree and depth of knowledge, no more." Elton continues, "Thus the observer's understanding of his evidence will alter his historical knowledge, and increasing knowledge may also lead to a revision of supposedly established facts because facts do not occur in isolation."⁴ It is this growing knowledge which the historian must use to enable him to exercise his judgment on the veracity of his authorities: " . . . the criterion of historical truth," says R.G. Collingwood, "cannot be the fact that a statement is made by an authority. . . . Even if [the historian] accepts what his authorities tell him . . . he accepts it not on their authority but his own; not because they say it, but because it satisfies his criterion of historical truth."⁵

It is important that the search for basic information relevant to the theme which is the subject of research is as thorough as the historian can make it. For although the facts are there, they do not present themselves for consideration. It is the historian who has to ensure that he has gleaned as many facts as possible before he begins to ask questions and interpret. Without thorough

preliminary research, how can he hope to produce a fair appraisal of his subject? Thomson says, "They [the facts] speak only when spoken to and asked the right questions. They then become evidence for or against some contention of the historian."⁶

Many errors of fact occur simply because writers fail to read their source material with due care and attention. Here are three examples—there are many more.

1. A picture of an obscure aircraft was captioned "Unknown until X found a photograph of it."

Fact: The aircraft was known about long before the photograph (one of two) was found, and it was not found by X, but by another person.

2. In a recent account of Bleriot's cross-Channel flight (which contained several basic errors), it was stated, "The epic crossing of the English Channel was the last flight that Bleriot was to make. . . ."

Fact: Bleriot was an active participant in the celebrated Reims meeting a month after his Channel flight, where he had a lucky escape from the crash of his NoXII monoplane.

3. In a recent book on the Wright Brothers, it was stated that Lilienthal's method of takeoff was thus: "Standing on top of a hill with his wings folded behind him, Lilienthal would make a short run against the wind. When he reached the hill's sloping brow he would launch himself with a leap, at the same time spreading the wings, which were snapped to their full breadth on meeting the air. . . ."

Fact: No comment!

PRECONCEIVED IDEAS AND THE OPEN MIND

*"Too many historians shoot first and ask questions later."
—Arthur Marwick⁷*

Obviously, when he sets out to prepare a book, thesis, or whatever, the historian has a theme in mind. However, this does not mean that his mind should be closed to alternative possibilities. Indeed, he should be prepared to have his ideas altered or even reversed if the weight of factual evidence so dictates. This lesson was brought home forcibly to me in 1971. I had become interested in the last glider built by Percy Pilcher, his triplane of 1899, and the influences on his thinking that made him change from monoplanes to a multiplane. All accounts of his work attributed this change to Lawrence Hargrave, and I decided to prepare a paper on the influence of Hargrave upon the work of Pilcher. The more I looked into the subject, the clearer it became that Hargrave's influence was small. I eventually established a link with Octave Chanute, uncovering both sides of their correspondence in libraries in the USA! Had I chosen, I could easily have stuck to my original theme, fitting the conveniently available "facts" to my case. Luckily I was prepared to question my evidence and accept the possibility of a radical readjustment to the story. The result was a most exciting piece of research and, I hope, a useful contribution to the literature on the subject.

The lesson is obvious: "research" aimed at proving a predetermined case is pointless. The work must be done with both eyes wide open and the blinkers removed. G.R. Elton put it this way: "The historian must certainly make one initial choice, of main area of study or line of approach. But after that . . . he becomes the servant of his evidence of which he will, or should, ask no specific questions until he has absorbed what it says. At

least, his questions remain general, varied, flexible: he opens his mind to the evidence both passively (listening) and actively (asking). The mind will indeed soon react with questions, but these are the questions suggested by the evidence. . . . After this initial stage, the questions arising will be pursued specifically. . . . Now the historian . . . seeks evidence to answer his questions, and if his selection is ill-considered or too narrow he may introduce distortion."⁸

Alan Bullock says, ". . . the first rule of the historian must be to keep a critical eye on his own assumptions and preconceptions, lest these should lead him to miss the importance of some piece of evidence, the existence of some connection."⁹

"Free-thinking," says Thomson, "is as essential for the historical attitude as for the scientific attitude, in the sense of an absence of inhibitions about questioning accepted 'truths'."¹⁰

There are three great enemies of the open mind: patriotism, partisanship and hero-worship. All three demand the sacrifice of truth to their own ends. It would be the easiest thing in the world to list numerous instances in aeronautical history where these "crimes" have been committed. Some of the best examples center around early pioneers, whose proponents maintain they "flew" before the Wright brothers. We have only to read the impassioned claims put forward for some of these gentlemen to see to what lengths some writers will go to elevate their heroes to the pinnacles of aeronautical achievement. In most cases the research is poorly done and extremely biased, the arguments are one-sided and the presentation of evidence is amateurish. More credence might be given to the cases if the authors presented them in a responsible manner, but this seldom happens—often, one suspects, because firm evidence is lacking or unconvincing. Of course, there are also those whose ulterior motive is to attack their "enemies" in the form of another author or historical personage.

It is clear that the person who benefits most from an open-minded approach is the historian himself. He is in a position to accept any unexpected possibility that may occur during his research, and can admit any consequent alterations to his theme without fear that they will destroy a preconceived idea that might otherwise force him to ignore them. He has the freedom to mobilize his facts without the threat that they may turn against him.

NEGATIVE AND SELECTIVE EVIDENCE

I was once reproved for stating that because there was no evidence to show that a certain experiment was made, we could not assume that it had been. My critic obviously believed that we should assume the experiment to have been made unless we found evidence to refute it. Hillaire Belloc sums up this curious line of reasoning rather well in a poem called "The Microbe," which contains the lines:

*"Oh let us never, never doubt
What nobody is sure about."*

Negative evidence (e.g., that lack of any evidence forces us to assume that an experiment was not made, but only suggested) is very important. It can actually provide us with powerful arguments in some cases. A good example is the belated claim by A.V. Roe to have made the first powered flight in Britain in

1908. *Flight* for June 12, 1909 (page 353) published a letter from Roe proposing that prizes be offered to encourage aviation pioneers. He suggests that awards be made for the following:

1. First aeroplane to run along an ordinary field at 25 mph
2. Fly 100 yards
2. One-quarter mile
4. One-half mile

Et cetera. . . . In the light of this letter, one is obliged to ask whether Roe had made anything resembling a "flight" in 1908 if he still thought such incentives were needed in 1909!

Additionally, in his own account of his work published in *The Aero* for April 1912, only four years after the 1908 experiments, Roe himself claims no more than "some hops of 50 yards or so," and describes it as "my failure," making it obvious that he did not regard these as flights in any sense of the word. Once again, there is *no* solid contemporary evidence to show that he "flew," and even Roe himself made no claim at the time to have done so. Nonetheless, one author wrote in 1966 that "Roe himself always said that he had flown in 1908," and attributed Roe's use of the word "hop" to "inordinate modesty," claiming that he thereby "unknowingly . . . would play into the hands of his detractors."

Even more dangerous than begging the question by ignoring negative evidence is the tendency of many writers to select the evidence that strengthens their arguments—a classic example of the closed mind. Advocates of Maxim seem to suffer from this. In fact, despite all the extravagant claims and lengthy arguments for his case, *Maxim himself* states *twice* in his autobiography (*My Life*, Methuen, 1915) that his aeronautical experiments were ". . . altogether too ambitious," and the fact that they occupy only a comparatively small section of this book indicates that Maxim did not hold them in much esteem, either. Another fact which Maxim's proponents may well see fit to ignore is his own admission that he had failed to master the control of an aircraft. Following Pilcher's death, the *Leicester Daily Post* for October 4, 1899, published a statement by Maxim that ". . . I made a machine, self propelling, and with a lifting power of 10,000lb, besides its own weight. But I never dared trust myself to it, because *I could not manage the balance*. That is the crux of the whole question."

In a court of law, the defending lawyer will ask the defendant only those questions which he believes will produce answers favorable to his client's case. By direct contrast, it is the duty of the historian to ask questions for and against his subject's case; he is defense, prosecution and judge, and to take side before all available evidence has been considered is detrimental to his subject and to his own professionalism. Anyone who researches deeply into the work of a famous man is bound to develop a sympathetic feeling towards him. The historian must endeavor to ensure that he does not let his sympathy control his use of the facts to such a degree that it distorts his presentation of the evidence and its bearing upon related history.

EMOTIONAL LANGUAGE

Another devious ploy of the unprofessional historian is the use of emotional words to sway the minds of his readers. This can be very misleading, and can prove helpful to his cause at first, but

once such a trick is exposed it turns against its originator. There are many words which may affect our attitudes toward something. Robert Thouless points out that the words "firm," "obstinate" and "pig-headed" all have the same factual meaning, but that their emotional meanings are of strong approval, mild disapproval and strong disapproval. To convey the same idea in a more neutral way, he suggests the term "not easily influenced."¹¹

When we realize that emotional words are being used to sway our reasoning, the best solution is to take the passage in question and paraphrase it in neutral terms. It may well prove that it then contains very little of any substance when it had previously seemed to carry great weight and importance, and that it conceals the lack of sound factual basis for the case. Here is an example of an emotionally loaded passage:

"Nothing stranger than this sudden attempt to impose qualifications and limitations, such as the quarter of a mile distance, as heaven-given measures of whether a flight was sustained or not has ever been seen. That such tendentiousness did not produce more vigorous replies must be attributed to the decline of aeronautical criticism. Having cooked up the quarter of a mile criterion its protagonists went on to see that the inscription on Cody's tree at Farnborough was altered so as to read that it was on the 16th October 1908 that the 'first sustained aeroplane flight in Great Britain' was made."

All the italicized words in the above carry emotional weight and thereby have the power to arouse emotion in the reader. An alternative and more neutral way of saying the same thing could be as follows:

"This attempt to qualify the definition of sustained flight (by the quarter of a mile distance, for example) seems curious to me. That such limitations failed to cause more argument than they did suggests a lack of criticism in aeronautical history. Having decided upon the quarter of a mile criterion, its originators then had the inscription on Cody's tree at Farnborough revised to read that the 'first sustained aeroplane flight in Great Britain' was made on 16th October 1908."

I am not saying that historians should be devoid of emotions, but that they should be aware of their influence and attempt to control them.

"DISCOVERY" AND SENSATIONALISM

Many people who think they are writing history produce something more akin to journalism. They seem to believe that it is necessary to make astounding discoveries to make their material worth reading, and to this end the most insignificant and scanty pieces of evidence assume significance out of all proportion to their true stature.

In 1956 a lengthy paper on "The Lives and Work of William Samuel Henson and John Stringfellow" was published in the *Journal of the Royal Aeronautical Society*. There is no disputing the fact that it is an important contribution to the literature on that subject, but the authors adopted the strange practice of printing in italics everything that was previously unpublished in UK accounts of Henson and Stringfellow's work. This is hardly normal practice to adopt in serious historical papers. If the paper is a truly significant document in its sphere, then those with a knowledge of the subject will recognize it as such, without the need for the authors to make a pretentious show of their discoveries.

Likewise, the author of a recent book on the Wright brothers played heavily on his "revelation" that Orville "stole Wilbur's thunder" after the latter's death in 1912. In reality, there is precious little hard evidence to support such an argument, and the general opinion has always seemed to be that Wilbur wielded the greater influence. The author's preoccupation tends to mar the book, repeatedly interrupting the course of the narrative.

We all get "bees in our bonnets" regarding particular subjects, but we must endeavor to keep our minds open to all the varied influences that play with our thoughts. If evidence demands that we rethink or abandon a dearly held notion, then we must have the strength of mind to do so. Discovery is the result of research and imagination. It is the historian's duty to present his revelations in an orderly and fully explained manner, and he must be answerable to his fellow historians. Sensationalism can be left to the popular press and to those who write without conscience or understanding; those who have no duty to the facts and evidence.

Where some of the early pioneers are concerned, there has been a tendency to offer signed affidavits as proof of an event, the document usually being signed many years after the event took place. It must be realized that these affidavits do nothing to prove that something happened; they only prove that somebody *believes* something happened. When these beliefs refer to an event that happened perhaps 50 years previously, recalled only in memory, it can be seen that the reliability of the statement is open to question.

ASSUMPTION

Very many of those who write history display an arrogance that is born of fear; the fear of admitting that something is unknown to them. Our experience at school teaches us that a betrayal of ignorance is greeted with derision by our fellow pupils, so it is best not to ask too many questions. This hinders the learning process, because that process thrives on the asking of questions.

As a consequence, many authors will fill their books with boldly stated "facts" which are often assumptions based upon weak supporting evidence. Those who admit a lack of knowledge often find that such an admission produces further information from hitherto undiscovered sources. On the other hand, those who fail to admit their shortcomings will never have the benefit of feedback enjoyed by the honest writer.

There is also the danger that our own self-confidence will allow us to make assumptions without realizing we have done so. It is very easy to "beg the question," i.e., to assume what is to be proved. Once again, the Pilcher-Hargrave link provides a good example. From 1911 to 1972 Lawrence Hargrave's soaring kites were stated to be the inspiration behind Pilcher's triplane. This was accepted as fact, and no one made any attempt to verify the claim. Upon investigation it became clear that the triplane was virtually complete by the time Pilcher tested a soaring kite, and that there was weighty evidence to prove that Chanute was the real source of inspiration.

If some "new" theory or facet of history is to be revealed, then it is essential that the evidence and reasoning be fully explained; otherwise the reader has no way of judging the veracity of the argument.

SPECULATION

I used to believe that speculation had nothing to do with history. I was wrong, but it must be used sparingly and within a rigid framework of evidence and cold, logical reasoning. It can be seen, therefore, that there is a point at which the evidence becomes too thin to provide a sound basis for speculation. For example, while I was able to find ample evidence to enable me to speculate in detail on the design of Pilcher's triplane, there was nothing at all to justify a resume of what Pilcher may have achieved had he lived to develop the design into a powered and controlled aircraft. Indeed, this would have been futile and groundless speculation, greatly affected by my personal biases and prejudices. I could have argued almost any case I wished.

As it was, when I made a reconstruction of the triplane from known evidence, two authorities suggested that Pilcher would have found the single wing spars inadequate and would have added a second. However, there is ample evidence that the wings as built had only one spar, and I would have been ignoring the facts if I had chosen to add the fictitious spar.

Some regard a lack of evidence as an excuse for unlimited speculation. On the contrary, it should be the reason for avoiding speculation completely. Speculation requires imagination—but it requires *informed* imagination in the historian's case.

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The previous two sections touched briefly upon another important point—the presentation of evidence to show how conclusions are reached or why certain statements are made. When one has become deeply involved in a specific subject, it is easy to assume that others will accept your statements as fact. If they ask questions, as they should, and can find no answers, they shall have reason to doubt the statements. Therefore, in a paper or article of significance, the listing of references and the explanation of reasoning behind statements is as important to the writer as it is to the reader. Additionally, the very act of writing down one's reasoning can help one to see the faults it may contain or the questions it may beg.

MISINTERPRETATION

This does not refer to misinterpretation of foreign languages—it refers to misinterpretation of information in original sources. For example, the Wrights' use of the term "drift" to mean "drag," and Pilcher's use of the word "soaring" to mean simply "gliding." As a result of the latter, several writers have stated that Pilcher sought to exploit air currents to gain height in his gliders, but nowhere in his original statements does he even suggest the idea. It can only be that his repeated use of the word "soaring" has led chroniclers to a false conclusion.

Misinterpretation does not always come about so simply. Our ignorance of a subject can be one of the greatest causes, or our failure to detect intonation or cynicism can catch us out. The latter requires a fairly intimate understanding of the subject and his ways of expressing himself. In his important paper on Henson and Stringfellow, Pritchard quoted a letter from Stringfellow to Henson in which the former describes the division of patent interests as recommended by their publicity agent, Marriott: "... to divide the patent interests into 12 as follows, Henson 4/12, Columbine (lawyer) 4/12, Marriott 2/12, String-

fellow 2/12—this Marriott thinks equable and just. I refrain from giving you my opinion on the subject as I should wish your opinion on it candidly and unbiased."

Pritchard simply remarks, "This gave Henson double on the shares of Stringfellow, which Marriott thought equable and just. Nor does Stringfellow protest, but leaves the decision to Henson." While this rather bald statement seems fair enough, I cannot help but wonder whether I detect some cynicism in Stringfellow's words, "... this Marriott thinks equable and just. I refrain from giving you my opinion. ..." The whole tone of this letter depends entirely on the way it is interpreted.

A similar piece of misinterpretation came about when Pilcher stated, "I was not able to make my first trials with this machine till June 1895, after I had seen Lilienthal fly." This was wrongly taken to mean that Pilcher had visited Lilienthal in June 1895, whereas it means that he saw him fly *before* June 1895—in April, in fact. As a consequence, several other misinterpretations resulted—that Pilcher visited Lilienthal only once, instead of twice, and that he flew Lilienthal's biplane in 1895 instead of 1896!

RESPECT FOR AUTHORITY

The recent controversy over the New Zealand pioneer Richard Pearse has provided a good example of the refutation of an argument by "pulling rank." I quote a statement by the Richard Pearse Memorial Committee: "We ... find it unbelievable that Mr. Elworthy in six short months can refute the evidence compiled over more than 20 years by such eminent researchers as the late George Bolt, chief engineer of the then Tasman Empire Airways Ltd. ..."

Many historians will know only too well that, however careful, thorough and time-consuming their researches, it is not at all unusual for something to turn up to change a theory or idea completely. Whether Mr. Elworthy's refutation of the evidence was valid or not, the Committee had no right to condemn him on the grounds of the brevity of his research (what are *short* months, anyway?) or time spent on the task by the late Mr. Bolt. Nor does Mr. Bolt's status in the aviation world bear any relevance. It didn't automatically make him a good historian, and it certainly didn't train him in the tricky business of historical research. Only first-hand experience does that. The only thing that can justifiably be used to refute Mr. Elworthy's arguments is evidence directly relevant to the subject—if it can be shown to have a sound basis.

This leads us to the thorny subject of "amateur" and "professional" historians. In fact, the term "professional" should not refer to the fact that history is the subject's full-time job, but to the manner in which he goes about his research and writing. G.R. Elton writes: "The hallmark of the amateur is a failure of instinctive understanding. This expresses itself in a readiness to see the exceptional in the commonplace and to find the unusual ordinary."

And again: "The purpose and ambition of professional history is to understand a given problem from the inside. ... Insofar as historical study is an intellectual enterprise—and that is its highest form—the professional has it every time. However

much we may prefer to read the amusing amateur rather than the tedious professional (admitting that the adjectives may well at times be changed round), we shall trust the second when we really want to know."

The mark of the professional is, says Elton, that "... he knows his evidence. He knows the range of it, how it came into existence, what people or institutions produced it, what it can tell and what can never be got from it. In consequence he knows the 'right' questions—those capable of being answered and those that lead to further questions. His instinctive familiarity with the evidence results in a useful and necessary sense which extends his range beyond the strict confines of the evidence; even his guesses bear the stamp of truth because they fit the reality of the situation."¹²

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The foregoing is one man's way of looking at the historical approach, and the care that is needed to ensure that facts are treated with the respect they deserve. Likewise, it is the duty of us all to ask questions, but not without some sound research beforehand. No doubt I have raised numerous points of contention, but we have to start somewhere.

The examples used were chosen simply to illustrate points; there is no intention whatsoever to "attack" any of the pioneers of aviation or their chroniclers. The fact that I felt this footnote necessary indicates the emotional response I anticipate from some quarters.

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ABOUT THE AUTHOR

Philip Jarrett, AMRAeS, age 33, has been writing and researching aviation history since 1967. He worked for the Royal Aeronautical Society for eight years, first as library assistant and then on its newspaper *Aero-space*, and has contributed several papers to that Society's publications, including two investigative studies into the work of the English pioneer Percy Sinclair Pilcher (1867-1899). When the magazine *Aeroplane Monthly* was launched early in 1973, he joined as assistant editor, the position he currently holds. Specializing in the early history of British aviation, Philip continues to contribute papers on previously neglected subjects to journals published by various aviation societies.

