Books, their conservation problems and their potential treatments are all so varied that it is often difficult to arrive at treatments which will be both effective, and, at the same time, disturb or destroy as little as possible their historical and evidential value. In many cases, decisions are made without proper reference to the issues which need to be considered. This paper attempts to lay out a framework which directs the decision-making process through a series of dependent questions towards the final treatment decision. Such a model cannot claim to resolve the sometimes irreconcilably different views of curators, scholars and conservators, but it will help both to ensure that all decisions not only take into account the historical and bibliographical value of the books and the appropriate conservation options, but also to present them in a consistent and logical order which will allow a systematic evaluation of the sometimes conflicting issues.

In addressing the question of what may and may not constitute good and bad repair, we have to look at the process by which repairs are first undertaken, and look at some of the steps by which we can hope to arrive at good repairs and avoid the bad. Implicit in the acknowledgement that there are such things as bad repairs is the fact that not all binders, whether they call themselves conservators or not, are either trained in or capable of the work that they are often asked to do. Of all the decisions made when asking for a book to be repaired, that of to whom to send it is often the one which effectively seals its fate, for good or ill.

The subject is immensely complex, and there many ways in which most basic types of repair can be executed. In addition, decisions can be made which may seem to the uninitiated to be contradictory. It is quite possible that similar damage to copies of the same book from different collections, even within one library, may require to be treated in entirely different ways. But whilst there will always be a greater or lesser extent a subjective element in selecting the type of repair, according to circumstance and to the particular interests of the people involved in the decision, I do believe that there are some basic ground rules which should be common to all such decisions, which in effect establish a checklist of the things to be considered when a book is brought forward for repair. I do not want, however, to come up with a list of rules, because the very variety of book types will make inflexible rules inevitably damaging in some cases. Rather, my intention is to compile a set of questions which will prompt a rational consideration of the treatment options available.

Often there will be quite legitimate and apparently irreconcilable differences of opinion over what should be done to individual books, when the interests of curator, scholar and conservator cannot be made to agree. Most commonly this will arise over the need to gain access to the text, but where the binding, or the nature of some form of damage, will not allow this; the discussion then comes down to one of the relative perceived importance of the different components of the book. Money, or the lack of it, will also create difficulties, where the work that the conservator feels a book needs will cost far more than is either available or is felt by the curator to be justifiable for a particular book. In such circumstances, the decision eventually arrived at, even if it is to decide to defer a decision - often the best solution for the book anyway - will run counter to the wishes of one or other of the parties involved. There is no way to avoid this, but what can be avoided is making decisions without properly exploring the issues involved.

It will be thought by many involved in the repair of books that the issues just mentioned are essentially curatorial and do not concern whether or not repairs are good, but the real quality of any repair will and must start with the decisions which initiate the whole process of repair. A skillful conservator can execute a brilliant repair which will still be seen as mistaken if the need for such a repair or its consequences are subsequently questioned.

At the very start, two questions immediately present themselves:

**What is any repair trying to achieve?**

and

**What are the treatment options available for achieving those ends?**

Like most fundamental questions, they sound simple, but can encompass immensely complex issues. The answers to both questions may involve not only a considerable knowledge of bibliography and conservation, but broader cultural and institutional concerns as well, and it is quite likely that no individual will have sufficient knowledge and experience to answer both of them - nor indeed to give a full answer to either. Therefore, whilst I will divide the process into the two broad categories suggested by the questions - curatorial/bibliographical and conservation - it must not be thought that they are mutually exclusive, or that a properly considered repair can result from answering only one of them. The expertise of both the bibliographer...
and the conservator should be used in combination to arrive at the necessary answers.

It is also undoubtedly true that this process, the initial specification of repairs, should never be regarded as being suitable work for people who do not have a considerable knowledge of the type of book being considered for repair. Whilst some basic processes of identifying material which may be in need of repair can be carried out effectively by inexperienced personnel, decisions concerning treatment need to be made by people who will be able to identify the significance both of the books and of the actions decided on. Because in many cases this process will, when carried out by knowledgeable people, actually take very little time and will appear quite straightforward, delegation of the task may appear very tempting, especially where books of a rather mundane nature are being processed. The appearance, for instance, of a gilt title blocked directly onto the cloth spine of the second volume of the 1832 octavo edition of the works of Byron 1 may not attract the notice of anyone unfamiliar with the history of nineteenth-century trade binding. Yet its consequent loss in rebacking will remove yet another example of what is probably the first commercial use of a significant technical advance. 2 If the people involved in making such decisions cannot recognise possibly unexpected and significant details of provenance, binding, marginalia etc., damaging mistakes will inevitably be made. Selection and specification are areas which need a high level of knowledge and, above all, an open mind.

The specification may well only result from consultation with a conservator, but not necessarily the person who will do the work. It will help to have advice from an experienced conservator when drawing up specifications, as he/she should be aware of the treatment options available, when the binder who might otherwise have been asked to do the work might not. By these means, it may well be possible to make fuller use of locally available skills than would otherwise be the case, whilst avoiding some of the worst pitfalls. Unfortunately for the peace of mind of the curator, there is now available to the conservator a whole host of structural techniques in particular which do not form part of more conventional (i.e. old-fashioned) bookbinding training. Anyone who is not aware of these techniques is not really in a position to draw up a specification.

The specification must also deal with the materials to be used, and here again professional expertise is needed. One cannot, unfortunately, rely on all binders to know as much as they should about materials, and to some extent we are all working in the dark, in the absence of even basic research in some areas, but the materials should be agreed beforehand. So far as is possible, only materials which are of proven durability should be used in the repairs, and not simply the materials that look good or are used in conventional commercial practice. The techniques used in the repair should be adapted to the right materials, and not the other way round, which means that the availability of materials (or their non-availability) will influence treatment decisions. Where durable materials are available, but are rather awkward to handle, it is incumbent on the binder to adapt otherwise conventional techniques to suit the material rather than reject them because they do not behave like more familiar, but less durable materials. The extra expense of the right materials (where they are available) may be alarming to some, but if used correctly, they will almost always prove more cost-effective in the long term.

It does, of course, go without saying that it is necessary to go to a binder who will understand what is required and has the technical range to cope with the work. It may not be easy to find such a binder, and if one cannot be found, it may be wiser to have only those repairs carried out which are within the range of the binders available. In most collections there is usually work at all levels of sophistication to be done, and a large scale first-aid repair programme, using only the simplest techniques, will always be of greater benefit than ill-advised repair which concentrate on the most valuable books.

The answers to the two basic questions asked above can be arrived at by asking two further parallel series of questions, which refer to the bibliographical and conservation implications of any proposed repairs, and which will allow an appropriate specification to be drawn up. The answers to these questions will be to a large extent interdependent. To put it simply, there is no future in demanding work which cannot be done, nor is it sensible to allow the successful outcome of the work to be threatened by the ability (or more properly, the inability) of a binder who is perhaps not qualified to take on the work. Furthermore, a specification should not be confused with listing simple repair requirements, which are often no more precise than 're-attach boards', as that information can be gathered by simple survey work. The specification should aim to establish as exactly as possible how the work is to be done, and, in particular, what must not be done in the process. Where work is not properly specified, the curator has no redress against well-executed work which turns out not to be what was expected.

The 'bibliographical' questions will concern themselves very largely in establishing wherein the value or values of the book lie. I assume that a curatorial decision has already been made which establishes that the book is worth repairing; what the conservator needs to know from the curator is why it is worth repairing. All too often the conservator is simply asked to repair damaged books without any further briefing, and this is a recipe for accident and loss. The questions will include
the following, though individual books may well prompt further specific lines of inquiry:

What exactly is it that is thought to need attention?

I am often shown books for repair which simply do not need repair and have many years of life in them without any attention. Then again, in some badly damaged books, it may be only one area or type of damage which needs to be repaired. This needs to be stated clearly at the outset, so that unnecessary and unwanted repairs are avoided.

Are there any features within the textblock which require special attention?

Too few binders have any training in bibliography, and may not therefore be able to recognise the significance of such things as cancels, stubs and so on. Such features will need to be pointed out.

Are there any indications of provenance (including old shelfmarks) which must be preserved at all costs?

The possession of an otherwise unremarkable book by a famous historical or literary figure will give that book an importance far beyond normal, and it may be that any form of rebinding or radical repair would be thought damaging, by reducing the strength of the association between the owner and the book. A classic instance of this is to be found in a book which once belonged to Dr. Johnson, and has in it a note to the effect that it was that volume which the good Doctor threw at the head of Robert Norris M.D. Not surprisingly, it is somewhat damaged, and the very damage is an integral part of its history; it should not be repaired if it is at all possible not to. As a general rule, all indications of provenance should be preserved, whether attractive or not, and some of them may be very inconspicuous and quite possibly meaningless to most people likely to look at the book. John Donne's habit of marking passages in his books with sloping pencil lines in the margins is one such, and all too easily erased by the tidy-minded.

What is the significance of the binding (structure and decoration)?

Most people can recognize a fine binding, but few are prepared to look for the significance of structural details. In some cases these can be of considerable interest, even though on books otherwise of little interest and value. An example of this comes in a curious English binding of the period 1670 - 1690 on a copy of the works of Sextus Empiricus printed in Cologne in 1621. It is in pieces, and thus a candidate for repair, but it is in fact one of only six recorded glued bindings (that is, without any sewing) of the seventeenth century. To sew it - or put it back together in any way - would destroy this tantalising insight into the way in which binders (or booksellers?) at a much earlier date than one might have guessed were trying to defraud their clients by making their books look as if they were properly bound (some even have false raised bands) when they were not. Where bindings of such historical interest are found on books of little intellectual or financial value, they are often most at risk, because if any repairs are considered ('to tidy them up a little'), they are likely to be of the cheapest, and thus the most damaging sort.

Is there additional importance offered by the book in some other form, such as the evidential value of the damage itself?

Inserted material may be understood only in the context of the book in which it is found, and types of damage, especially soiling, may well give important information about the history of the book. It is grime marks left by the inner edge of the back board on the now outer margin of the second cathedral waterworks plan in the twelfth-century Canterbury psalter which indicate not only that it has been reversed at some point in its history, but also that it was at some stage immediately adjacent to the board, and not separated from it by flyleaves, leaving it likely that it was itself originally a flyleaf. Other evidence shows that the drawings were executed on the leaves after they were bound. Damage left by fires can not only help to date repairs and material added to damaged books (one looks to see whether it too has been damaged), but may also be useful in dating the fire - a matter of some interest when dealing with old-established collections.

What is the future use of the book likely to be?

It is impossible to work out how best to repair a book without some idea of of the type of use to which it will be put. Books which are unlikely to get any sort of regular use may not actually need to be repaired at all, but a book known to receive regular use may have to be repaired in ways which will give it a chance of survival. If the owner or readers of a book can be given (and be relied upon to use) proper instruction in the best ways to handle books, then again, much repair work may become unnecessary.

Where and how will the book be stored?

If a large book can be stored horizontally, then much less in the way of repair may be needed than if it is to be kept vertically. If the storage conditions are inadequate, repairs are unlikely to be the answer to damage caused by them, and are best put off until adequate conditions can be established.
If it is possible to establish, by these and other similar questions, what the repairs are attempting to do, it is then necessary to make sure that the qualities which have been identified are in no way damaged by the repairs which may then be carried out. This may involve on the part of the binder a considerable degree of ingenuity and apparently unconventional binding technique, by which I mean that the repairs should refer directly to the structural and historical requirements of the damaged book and not be imposed on it by the limited range of techniques currently accepted as conventional bookbinding. Rebinding is by no means always the best course of action, and will always involve sometimes considerable amounts of historical (and physical) damage. But there are many ways in which even quite badly damaged structures can be reinforced without undue interference, particularly if the future use of the book can be properly controlled. Essentially, the techniques should be made to fit the book and what is required of it, and not the other way around.

The conservation questions will in the first place depend on an assessment of the damage and its effect on the book and of the necessity of repair. It must then be considered how any proposed repair will be affected by the answers given to the curatorial questions given above. Damage itself, whilst it provides the opportunity for repair, should not inevitably be seen as necessitating repair, and one basic question should be borne in mind when considering all possible repairs:

**How much (or little?) repair is absolutely necessary to do what is required?**

Most libraries have so much work to do that they cannot afford to do more than is absolutely necessary, and the survival of the historical interest of many books is often dependent on how little work is done to them. All too often, though, the desire to carry out work which is little more than cosmetic (though this is not always a minor consideration) leads to the quite unnecessary destruction of physical evidence in books. To answer this question, however, further questions will have to be answered:

**Does the damage threaten the survival of the book even without use?**

**Does the damage make the book unsafe to handle (given the likely future demand on the book)?**

**If the damage is stable and does not greatly interfere with the handling of the book, can it be repaired without gross interference with the rest of the book?**

If the answer to any of these questions is yes, then a further series of questions will be needed, prompted always by the need to approach the question of repair by asking how little is needed to achieve the desired ends, rather than how much. If the answer to all the questions is no, then the book should, perhaps, be returned to its shelf, probably in some form of protective box or wrapper. Where any of the answers is yes, further questions arise:

**Is it possible to repair or support the existing structure without taking the book apart?**

As elsewhere, the answer to this question is going to depend very much on the skill and experience of the conservator. Many books are now repaired without being pulled, but some of the techniques needed are used by only a small number of binders. If the answer is no, then it may be thought better to leave the book alone, as either the disruption or the expense (or both) may be thought too great.

**How much of the existing binding can be saved?**

The answer to this question will again be directly related to the skill and experience of the conservator, and may be subject to revision in the course of work as materials behave or not as expected. Generally, much more can be saved than is often recognised.

**Is it possible to preserve all the original materials in place and allow the book to be read safely?**

If the answer to this question is no, it must be decided whether to abandon the proposed repairs, preserve the displaced materials off the book or modify the existing structure to allow an effective compromise.

**If the existing structure is too badly damaged to keep together, is there a better way of putting it back together?**

It must be remembered that a facsimile of a binding structure taken down in order, perhaps, to carry out extensive and unavoidable repairs to text leaves, will never have the authenticity of the original, and that an opportunity is therefore afforded of modifying or altogether changing a structure better to suit the characteristics of the text leaves. For instance, a medieval vellum-leaved book in a later tight-back binding could be given an unglued spine or a zig-zag guard when repaired, though both would be, strictly speaking, anachronistic. The replication of unsuitable binding structures in the interests of a notional authenticity does not necessarily make sense.

Each of these questions posits still more questions of an increasingly technical kind which may well need to be referred back to curatorial decision, even during the
course of repair. For example, before repairing the two volumes of Etienne Dolet (Lyons, 1536 and 1538) in contemporary English bindings from Southwell Minster library, I discussed with the curator the treatment of the leaves of a commentary on the the Decretals of Gregory IX (Lectura super V libri decretalium, Basel, 1477) used to make up the boards. Given the large number of copies of the text available elsewhere, it was decided to re-use the now delaminated leaves as the boards of the book. Further work, however, revealed two leaves of a much rarer and more interesting text (the French translation by Simon de Hesdin and Nicolas de Gonesse of Valerius Maximus, Facta et dicta memorabilia, printed in the Southern Netherlands by the anonymous printer known as the Printer of Flavius Josephus, about 1475–7), which it was then decided to extract and mount in the back of the relevant volume. In this case, the use of the leaves in an English binding provided the earliest (if not the only) evidence of the existence of a copy of this book in England.

However, I have not yet tackled the central difficulty faced by most people with a curatorial responsibility but who do not have training in practical conservation work: namely, how to make sure that you obtain work of the quality required and how do you recognise it when you see it?

The issue is unfortunately complicated by the straight-line and right-angle philosophy of binding and the deeply rooted belief that all books should look neat and tidy. There is a distressing amount of work done more with a view to eradicating untidiness from library shelves than to putting right more fundamental types of damage, and much of it is either done to books which have little need of repair in the first place, or done in such a way that it has little chance of surviving long enough to justify its expense. If more people could only accept that it is entirely natural for books which may be several hundred years old to look a little knocked about, then perhaps a lot less work would be done, and less damage with it. If a further conceptual leap could be made into accepting that even a repaired book might not necessarily end up with a gleaming new spine, but might, even so, without unnecessary interference into its binding and structure, have been made safe to handle, then once again much unnecessary damage through rebinding might be avoided.

This requires that those examining the repaired book do not restrict their examination to checking the regularity of the squares and the tooling - which I have often seen done - and can understand that exact precision of finish does not necessarily contribute to either longevity or usability, and that such qualities should not be looked to as reliable indications of quality in terms of conservation. This should be apparent to any perceptive observer of books bound before the eighteenth century, in which a lack of attention to the finer points of finish has in no way contributed to their premature decay. In fact, the opposite is more likely to be the case, because more substantial (that is, to a binder working in the nineteenth-century tradition, 'clumsy') materials have often lasted better than their more heavily worked later replacements. Besides, the neatness of finish that has come to be expected as a result of an increasingly mechanistic approach to binding is not only inappropriate for some early books, but can also be expensive. If curators were better able to accept less intrusive repairs - the simple reattachment of boards rather than complete rebacking, for instance - the work might prove not only cheaper in the long term (through increased durability), but also cheaper in the short term (through less work). Given contemporary problems with obtaining suitable materials, especially covering materials, for conservation binding, such a course of action may, in fact, be the only sensible option open in some cases.

But, to return to the question of distinguishing between good and bad repairs. I have in fact already discussed one of the more important prerequisites - the existence of an accurate specification against which to compare the repaired book. All too often it is easy to forget exactly the condition a book was in before it went off to be repaired, and therefore it is hard to know exactly what to expect when it is returned. A specification will help clear up such confusion. So too will a report from the conservator when the work is finished.

Let us imagine, then, that the specification has been drawn up, the conservator has repaired the book and the book has been returned to its library. What procedure should then be followed?

**Read the conservation report.**

All repaired books should be accompanied by a coherent written account of what has been done, listing the new materials and adhesives used (and where they have been used) and any alterations made to the format and original structure and materials of the book, together with photographs or drawings where these are relevant and useful. This need not be very long, especially when repairs are simple, and need not explain at length what is clear to the eye, but must give sufficient information to allow future conservators and bibliographers to know what they need to know. Comments therefore such as 'boards reattached' or 'corners repaired' do not help much - anyone looking at the book can see that this work has been done - but comments such as 'linen cord whipped to existing sewing supports with linen thread and slips frayed out and pasted to outside of boards,
leaving the original slips undisturbed' and 'corners repaired with Japanese tissue stuck with wheat starch paste' will help, and will reveal whether work has been properly done even when it may no longer be visible in the repaired book. Similarly, the remark 'book resewn' will be obvious to most people and therefore give little useful information, but 'book resewn all along on three recessed linen cords in place of two-on on the original two tawed thongs, which left central recess empty' does give information no longer evident on the repaired book. The quality of information given in such reports can actually serve as an indication of the binders' awareness of the implications of the work that they are doing. Binders who are reluctant to supply reasonably detailed reports may have reasons for doing so which do not reflect well on their techniques.

**Check against the specification.**

A simple administrative task which will tell you whether the agreed work has been done.

**Do the repairs work?**

This is the critical question. The repairs, if they are to be worth doing, must work, and all too often they do not. If the aim was to produce a book which was safe to read, it must be precisely that. If it is impossible to do so, then the repairs should not have been carried out in the first place. The book should open adequately (within the limits imposed by the textblock and old binding, if there is one) and place no undue strain on the original materials of the book preserved in the repair, and it should continue to do this for a considerable length of time. Where it is not possible to repair a book so that it will open easily, careful control of its future handling must be used to preserve it intact. The use of a book must be adapted to what the book can cope with. It is perhaps worth saying that the rightness and wrongness of a technique will depend almost entirely on whether or not it works and will continue to work. It is very apparent from some modern bookbinding manuals that in many cases techniques tend to be seen as inviolable, and are executed in certain ways and are used in certain circumstances without room for variation. When this attitude is confronted by books which themselves do not conform to such techniques (as is typically the case with most books bound before the late eighteenth century), the results are usually lamentable.

So far as possible, the coherence of a book structure should not rely on adhesive alone, and should always be underpinned by a sound sewing structure, whether new or repaired. The moving parts should flex easily but must not be loose. This may sound contradictory, but flexibility which is gained by a loose connexion between component parts will result in wear, abrasion and comparatively rapid collapse. Flexibility with strength is obtained by the firm and secure attachment of each component to the next within a structure built up from compatible materials which are in themselves of a suitable weight and flexibility. This means that when the book is opened, the component parts do not move independently of each other, as they will if loosely connected, but within a firmly secured structure. The current revival of interest in non-adhesive structures makes this point all the more important, and it must be remembered that there are many books whose text-leaf material makes them unsuitable for non-adhesive structures of any sort. Basically, a book which opens too easily may be just as much at risk as one that hardly opens at all.

Finally, a comment. We talk about reversible repairs, but what is meant by that is that the repairs, and the repairs alone, can be removed - and this is an extremely important aim of all proper conservation work. But what cannot be reversed is the fact that books have been repaired. The moment the structure of a book is interfered with it becomes impossible to put it back exactly as it was. Really crude repairs, like gluing a coarse, thick piece of leather all around a book with detached boards, though sometimes laughable and certainly not to be recommended, often do much less damage than more 'professional' work. Even a book 'repaired' by having a piece of rexine glued all over it with bostik (I have visited a library full of these) is probably salvageable, in that all the original components of the book are still there under the new cover, and can be retrieved. What we cannot undo is the sort of work where material has been discarded, the structure interfered with (if not entirely replaced) and where only a sad ghost remains of the original binding. To avoid this sort of thing, we need to work out in advance what should be done, to make only informed and properly reasoned decisions and then make sure that what is decided on is done as well as it can be. Where this cannot be done, it is usually best to leave well alone.

**NOTES**


2. Bernard Middleton, A History of English Craft Bookbinding Technique, London: The Holland Press, 1978, p. 172 and 172n. Further to complicate the history of the publication of this edition, I recently became aware of the fact that there are two slightly different versions of the block used on the spine. There is also a later issue in which the title on the first volume is also blocked directly onto the cloth.
3. Gruterus, Lampas, sive fax artium liberalium, hoc est Thesaurus Criticus, Frankfurt, 1602, in a seventeenth-century stiffboard parchment laced-case binding. It bears on the front flyleaf the manuscript note: Mr Verdier's Servant is ready to attest, upon oath that the Volume which wounded the Head of Robert Norris M.D, was Gruterus Lampas Critica, and that which broke Mr Lintot's Shin was Scaliger's Poetics. It was bought at the sale of Dr. Johnson's books by William Wyndham of Felbrigg Hall, Norfolk, where it has remained ever since. Now in the possession of the National Trust.


5. Sextus Empiricus, Opera, Cologne, 1621. The binding, which was held together by five tanned leather thongs glued into deep recesses cut across the spine with eight shallower empty recesses between them and at head and tail, was also given false raised bands formed over lengths of cords glued across the spine. Chester Cathedral Library.


7. Etienne Dolet, Commentariorum Linguæ Latinæ, Lyon, 1536 and 1538, Southwell Minster Library.

8. I am grateful to Dr Lotte Hellings of the British Library for the identification of these leaves.


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