I started indexing the Principall Navigations in September 1961. I was approached to do this partly, I think, because I was available in the sense of not being gainfully employed, partly because I had already indexed two publications for the Hakluyt Society, publications that covered a considerable part of the third section of PN, the enterprises of Sir Humfrey Gilbert and Sir Walter Raleigh. A third qualification was that I had permanently in residence a member of the Hakluyt Society who could supervise the work in progress. There was, I think, some advantage in having editor and indexer under one roof especially for the indexer who soon found that it was quicker to ask a question than look up a book. In the course of time when many, if not most, of the pages of PN seemed to have been photographed on to my mind by some tele-lithographic process I could give the editor a reference not only as to page but where on the page without having to look at a card. I don’t regret the fading of this parlour trick. It is enough to feel that your head is a ragbag, without the certainty of remaining an automated ragbag. What has not faded is the pleasure and satisfaction the reading of the entire 1589 edition gave me from the table of contents to the index. Parts I and II I had read before only in selection. I had been introduced to PN as literature when I was at school and had to remind myself more than once that what I was supposed to be doing was indexing and not literary appreciation or even making a glossary. Yet re-reading a passage that I found vividly descriptive or graceful or effective provided relaxation from the inevitable tedium with which indexers are all familiar.

Copy arrived first of all in the negative impression, single sheets, white letter on black, rather ghostly. Most of the first reading was done from these sheets. I soon became accustomed to this but it is not as clear as the positive, black on white. When the positives arrived they were in gatherings and in this form much easier to handle for checking and much easier to assemble if they became misplaced. To upset a pile of black sheets was a minor disaster. By the following summer, that is 1962, an index was ready but not as full as the one that was printed. What remained to be indexed was the introduction but this was not ready in page. One reason for delay was that Cambridge was in the middle of re-organizing, moving house. This gave me more time to extend the index and pursue identifications. Copy was sent to Cambridge in April 1963 in order that decisions could be taken on presentation. With so large a page a decision had to be made about number of columns and samples printed of selected entries. The copy was then returned to me for adjustment and finally sent back, as far as I can recall, about the beginning of June. An amusing coincidence was that the number of typescript pages was exactly the number of pages in PN.

The following month I set off with the editor for a year in the United States, study-
ing at three libraries, the John Carter Brown, the Huntingdon and the Folger, and it was at the last mentioned that the galley proofs caught up with me in the spring of 1964. I was very happily situated there, together with the Library of Congress across the road, for any further checking. The proofs went with me to the John Carter Brown for the summer where, again, I had every facility for checking voyages of discovery. The galleys were returned to Cambridge about the beginning of September shortly before we, ourselves, returned to Liverpool. Two sets of page proofs followed fairly rapidly and just after Christmas 1964 I had finished my part in the index to PN (1589).

I will deal now with the general policy outlined for the start of this project. It was decided that this should not be only a name and place index but should also incorporate a wide range of subjects. The index to the MacLehose edition of the 1598-1600 Princi-pall Navigations is almost wholly name and place, with subjects, apart from Ships, barely touched on. Even so it occupies almost an entire volume and is complicated by having volume as well as page references. It is an index for which I have the greatest admiration. I used it extensively and seldom found a mistake. The 1589 edition being paginated straight through greatly simplified the indexing of subjects, indeed the indexing of everything. Such complications as there are in the pagination I will refer to later.

As this was to be a modern index it was decided that all place names should be given their present form where they could be identified and that the modern name should be the main entry. Names of persons were to be treated in this way also and persons who were mentioned by office or in any other indirect way should be identified and indexed under their proper names, again where this could be done accurately. A preliminary working list of subjects was agreed on with the understanding that I could introduce any further subjects that might arise from indexing. Hakluyt's motives in compiling PN and his special interests were well known. Anything connected with voyages of discovery and anything connected with plans for settlement in new discoveries would be a suitable category. Such subjects as Ships and allied topics, Commodities, embracing both Fauna and Flora, Maps, Navigation, Money, Measures, Weights, Merchants suggested themselves. Colonization and colonists implied native peoples, Indians, Eskimos, Negroes and the questionnaires with which all discoverers descended on societies, then as now. They were to take note of customs, ceremonies, religion, weapons and tools, houses, clothing and diet. They were to attempt to collect words of the language and bring back some of the natives to learn English and teach their language. Some I tried out of curiosity. In what was very much a man's world I wondered what sort of information there was about women and was interested to find that Hakluyt himself had indexed women. How much was there about games, about music, about diseases? I was asked to index rain. Out of the search for references to rain it became clear that the English were interested mainly in its absence. Hakluyt's index entry for Egypt is ‘Aegypt hath raine very sel-dome’. Apart from these general directives I had a gloriously free hand, enough rope to rig the 'Golden Hind'. There was not even a limitation as to size. As the second volume was to contain only Part III the index could swell itself importantly into Part IV. And swell it did. This index was another voyage of discovery. I had very little idea of what I might find or what the final index would look like.

I come now to the technical points which had to be settled before indexing could begin. The pagination presented certain problems which were resolved by Mr. Skelton. The narratives are paged straight through from I to 825. The index which follows is not paginated and was silently numbered 826 to 834 as far as the reader is involved. The indexer got busy with a pencil immediately. The introduction was numbered in roman as introductions so frequently are. The introduction to PN is sixty pages and touches what I consider to be the upper limit for the use of roman
numbering. An introduction of over two hundred pages numbered in roman which I have recently indexed reduced me to counting on my fingers. Such references take up a disproportionate amount of space in the actual index. Italic arabic is a more efficient and effective method, I think. To return to PN. Italic arabic was used for the Preliminaries which, again, were without page numbering. So far we have roman, arabic and italic arabic. There are still two sections to be dealt with, the Drake narrative and the alternative version of the Bowes report. This account of Drake's circumnavigation, inserted after PN had been printed, is not paged. For this the device of using capital letters was used with the number of the page immediately preceding, working out as 643A to 643L, in italic. Sir Jerome Bowes' account of his experiences as ambassador to Ivan IV ran from pages 491 to 505. The amended version, diplomatically revised, runs from pages 491 to 501 and these numbers are in italic to distinguish them from the first state, obviously necessary when both versions are to be indexed. Need I tell indexers what a constant anxiety these numbers were. Most people have experienced neurotic anxiety feelings about gas and water taps when leaving home on holiday. In the same way I was in a constant state of neurosis about whether I had remembered to underline or had underlined the proper number. How I wished that Sir Jerome Bowes had been illiterate, or perhaps more discreet. In all there are five kinds of numbering, roman, arabic, italic arabic, Drake, Bowes—six if you include invisible numbering—seven if you include wrong page numbers, silently corrected.

Punctuation came under scrutiny next. There was some discussion on how to present the two place names, ancient and modern, resolving itself into putting the text name into round brackets after the modern name which was the main entry, with, of course, a cross-reference from the text name. This rule applied also to personal names but was used only where there was a marked difference as, for example, in the English rendering of Russian names. Where there was an identification by office the name is followed by the description and there is a cross-reference from some key word such as consul or ambassador. Commas and semicolons only were used and the material could be paragraphed or divided by subheadings.

Subjects were to be grouped with cross-references from the particular to the group. The reverse arrangement was never canvassed for this index. The size of some of these groups was estimated to be potentially too large as it turned out. A long list of items to be looked up separately on different pages would be too cumbersome as well as adding to the wear and tear on pages. A list can suggest relationships. It did add considerably, as more than one reviewer has pointed out, to the number of cross-references but as I was not limited in space I indulged to the full. I did consider giving a list of Subjects at the beginning of the index but rejected this as being out of tune with Hakluyt whose own index is discursive and gives up its information only to the browser. In this modern index, to the browser the subject headings are readily apparent. This arrangement of grouping subjects has been described by an American reviewer as 'instant research', including I think much of the analysis under place names and leading characters. I think this is an apt description and partly what I found, as I progressed through PN, I was for various reasons led into doing.

It was not practicable to read through the entire PN before starting to index, so that many decisions were taken as the index grew in bulk and sample analyses were made. There was the size of the page. One page of this facsimile is the equivalent of two and a half pages of the MacLehose edition, many of them with scarcely a break for paragraphing. Black letter is not easy to scan quickly nor is it possible in a facsimile to employ any technical device to assist in finding a reference, such as dividing a page into three sections or numbering the lines in tens. Some other assistance in finding a reference, I felt, would be desirable and this could only be descriptive in that it might help to show on
which part of the page the reference would be found. In pages that contain so much reading matter changes of topic are frequent. This is why so many references, apparently trivial, have a label. Much more labelling of references is necessary too when making an analytical index, for working purposes, especially when the indexer is not also the editor, the compiler or the author. Such labels do not necessarily appear in the final index but many were retained in the index to PN for this reason. It also seemed to me to be helpful to readers to give in the index some definitive information especially about persons. If there is a run of John Browns time is saved if they can be described by occupation or pinned down in time by giving dates of birth or death. Subject items were put into a context as an aid to selection for those using the index for specific information. This is instant research in that the information may be to hand in the index without reference to the text. Why not? Miss Paulin in her address to the 1966 Annual General Meeting of the Library Association underlined the need for such time-saving help to researchers faced with ever proliferating books and papers. If this analytical work has been done, either by indexer or editor, there is everything to be said for passing it on. This is particularly desirable for a work known to be or published with the intention that it should become a standard reference book. After nearly four hundred years PN qualifies.

I found as details began to accumulate and sample presentations were tried out that a formula, especially for places, emerged. This might well illustrate something of Hakluyt’s method when editing the texts for publication. There is on record what he selected, what he stressed. In his re-editing of some of the narratives for the 1598-1600 edition there are indications of what he may well have eliminated for the 1589 edition. Some of the information might have been considered too common-place for the sixteenth century. The repetitive narrative worked up from a ship’s log called for his blue pencil yet it is from these that a glimpse is given of how people occupied their time on long sea voyages or during long sojourns in a foreign harbour. By cutting much from Hugh Smith’s journal describing the voyage of Pet and Jackman in search of the Northeast passage I think he toned down or almost destroyed its dramatic effect. I admit that I indexed this description of the struggles of two tiny ships to get out of the ice east of Vaygach during a cold January with the snow falling. It made its mark. A little earlier I had been indexing the description of Ivan IV’s annual review of the ordnance at the time when the Russians exploded that powerful bomb somewhere in the region of Novaya Zemlya. It may have appeared a menace to everyone else but to me it was just the annual review of the ordnance taking place at the traditional time of the year. The formula worked out for places was descriptive details first, one or two paragraphs, followed by historical details, again paragraphed according to the nature and amount of material. Miscellaneous references were kept to the end and the final reference was to the Hakluyt index where this applied. Persons, as one would expect, were more idiosyncratic. Here, such personal information as was given was put first, followed by references to documents such as letters and then historical information. The order of paragraphs was never intentionally alphabetical but governed by some logical order inherent in the material—time, geography, documentation, etc. The Volga, for example, is indexed from its source to its delta in the Caspian Sea. Native peoples are indexed, at a guess, in the order of the questionnaire, the order which appears again in the Cook Journals. Lists were, of course, alphabetical but an exception was made for the ships’ complement. Here the order is rank, supplying an extra piece of information. An exception was also made for those entries beginning with “Saint” in sundry languages. These were kept together as a section indicated by extra space, as a cordon sanitaire, at the beginning and end. Some subjects are mixed alphabetical and associative, such as houses and navigation. The assortment of structures under houses is brought together because they are called
mostly some kind or other of a house such as trading house or sugar house and I thought it would be useful when looking for a reference to know that the word 'house' was the clue. Navigation proved the most intractable of the subjects for everyone concerned. How could this seemingly endless supply of assorted observations be put into some order that could be of use or meaning. The model I used seems to me to be that of the BBC weather bulletin, region by region, gale warnings and all, keeping Atlantic and American regions together, Arctic and northeast regions together.

The physical apparatus I used for making the index was 5" x 3" cards and, eventually, shoe boxes to hold them as they soon outgrew the two filing drawers I have. Cards for persons and places were kept in one alphabetical section, subjects in another, as this cut down the labour of finding cards. These cards contained eventually the name, labelled page references, and at the bottom the source for an identification. Many of these entries ran to several cards, each numbered in sequence. Cards with the cross-references were put in when the need arose. In all about 10,000 cards were used. When the last page was indexed the labour of typing had to be faced, as there was no alternative. Ten thousand cards holding information some of which was not intended for the index could not be sent to a publisher. Some help was essential and a typist was employed to do the persons and places. Subjects I typed myself together with those persons whose entries were long enough and complicated enough to rank as subjects, such as Hakluyt himself, Ivan IV, Queen Elizabeth. For the guidance of the typist a green card was inserted into her group of cards wherever a subject intruded, with instructions to start a new page. Three copies were made with triple spacing to allow for corrections and additions. It was clear that a point had been reached before every entry was ready when the overall impression of the shape and nature of the index that would reveal itself in typescript was desirable. It would be easier to check for consistency and cross-references. It was not typed to fit any specific column width as this had not been decided and the internal punctuation was left as simple as possible to make corrections easier. It took the typist from A to C to become accustomed to my writing and the shape of the entries so that quite a number of these early pages had to be re-typed. I worked ahead of the typist once I realised what her difficulties were, editing the cards into exactly what was to be typed. I had lived with these cards for so long I could no longer appreciate how bizarre some of them must have appeared.

As can be seen from the list of acknowledgments in the preface to PN much expert information was incorporated into the index. This list mentions the most assiduous and hard worked members of the research panel with the exception of the editor. For him there was no escape from my importunity. He could and did turn the tables on me and we decided that our mutual votes of thanks should be as silent and implicit as the invisible page numbering. Behind these names there is a cohort of friends in many places whose brains I picked if they happened to come my way with the possible answer to an unsolved query. What better person to ask about owners of copies of PN than Mr. Lawrence Wroth who had known so many personally. If I mention here Mr. Peter Petcoff who read the galleys and Mrs. Clara LeGear, both of the Library of Congress, it is because the acknowledgment had already been printed before they gave their invaluable help. Much information was picked up from books both here and in the States, much from Hakluyt Society editors past and present and from the editor's collection of books on voyages of discovery available at my elbow. Some gave advice on presentation and checked the final form. I suspected that I was becoming known as that Hakluyt bore.

This research work is to be found largely distributed between the place names and the subject entries, some in the foreign words used, some in the list of books. Most of the identifications of people were readily found in standard reference books. There are the notes in Money, Weights and Measures, the identifications in Fauna and Flora and also
of Commodities. There are the different types of cloth, of furs, of drugs, the attempts to find how many ships of the same name were, in fact, the same ship. Gradually the list of unknowns grew smaller but right up to the last proof reading I hoped to be able to find something on the obstinate few. One that eluded me for a long time was the word 'tisik' used apparently to mean a Persian merchant. I was taken in the Library of Congress to a Persian expert. He replied to my query without a pause, 'Tisik—a Turkic word meaning head man, obsolete now, but widely used in the Caspian Sea area in the sixteenth century.' Not all dropped into my lap quite so neatly. It is obvious, however, that an index is not the most satisfactory medium through which to present the fruits of investigation. It is much too arbitrary, while footnotes to an index does not commend itself as an innovation. That would introduce a nightmare quality. The use of question marks or other ways of indicating something less than certainty can be merely irritating. The desire for a footnote was expressed more than once in order to explain why one conclusion was preferred to another. In short a great deal of interesting material was being collected about the sixteenth century and more specifically about Hakluyt himself or was pointing to the usefulness of fragmented studies of Hakluyt's collections and methods. This has led in turn to a proposal for a series of studies of Hakluyt to be incorporated in a Hakluyt Handbook for which there is now a provisional plan. Suggested topics are Hakluyt as a translator, an editor, a geographer, a historian; his use of language, his nautical terms, his maps; his use of materials available to him on the various parts of the world covered by his narratives.

In PN there is a considerable body of narrative in Latin as well as some translations from Portuguese or Spanish. For most of the Latin Hakluyt provides a translation. The exceptions are the extract from Pliny on monsters and the Mandeville Travels. These two items I left until the end for indexing. A translation for the Pliny was easily found but there is no direct translation for Hakluyt's version of Mandeville. My Latin had lain for too long in disuse to be of much help in disposing of Mandeville quickly. I collected one or two editions of Mandeville, several Latin dictionaries and the medieval word list. Thus embedded I tracked down in one edition or another the passages that were misplaced. Here I found a good index invaluable. I was advised not to attempt identifications for Mandeville—as if I were competent to do any such thing—a piece of advice I was only too pleased to take. One other category of foreign language deserves mention, the vocabularies collected in the field and brought back to England, Eskimo, Lapp, Algonkian, Javanese and African dialects. When extra time was available I thought that it would be interesting to test how good or bad, in the light of current scholarship, had been these attempts to transcribe words from what were, to English ears, completely unfamiliar languages. The linguistic experts mentioned in the preface responded most willingly to my requests for such an assessment and went to a great deal of trouble to send me the results in a form that could be incorporated in the index. Where words could be recognised the modern form is given. The interest of this section would be much more apparent if the results of the comparison were given more fully than the index permitted.

A fitting conclusion to this account would be some notice of Hakluyt's own index. Indexes are normally the ending. It is in alphabetical order but follows its own rules. Persons are indexed by their Christian names, Steven Borough appearing in 'S' and Walter Raleigh in 'W'. Sir Humphrey Gilbert appears in 'H' as Humphrey Gilbert, kt, but Sir George Peckham is found under 'S' for Sir. You won't find Ivan IV under 'I' but under 'M' for Muscovite emperor. Places follow a more conventional order. Subjects, when they are not embedded in an analysis belonging to a person or place seem to be chosen for their quality of surprise. You have marvels of nature and the odd ways of foreigners; fishes that fly, dogs that catch fish, springs of tar, lions, leaves, reeds of a huge bigness; fire forced of two sticks,
kissing used in Moscow, as in all the Greek churches, lawyers not suffered nor maintained in Russia, nails of the hands suffered to grow very long. There are two entries for the Scots; the first, 'gifts sent to Queen Mary from the emperor of Russia; the same gifts spoiled by the barbarous Scots'; the second one, 'Scots theft, and spoil of English goods'. Two unfavourable mentions is notoriety. It would seem that he did not like the Scots. His choice seems to be governed by disapproval where other nations are concerned with complaints of treachery and double dealing towards the English. No doubt he thought it necessary to warn intending discoverers and planters of the pitfalls in their way. All the subject categories I used can be found in Hakluyt's index, if only by one example. It is obvious that Hakluyt had, in common with all indexers, to hurry. Evidence of this haste is easy to find; such material as he had assembled for some time is extended in analysis. There are long entries for the Crusades, for Mandeville, for the early history of the Muscovy Company. But the later English voyages to America have been rushed and noticed only here and there. There is an entry for Virginia but John White does not appear. This may be because he was not considered important enough as there is a longish entry for Cavendish who did not return from his circumnavigation until 1588. But as the purpose that prompted Hakluyt to publish PN was the promotion of voyages to America the weighting in the index is misleading.

As I have said Hakluyt did not like the Scots. This is what he selects for women in his index: 'women of Arabia, their apparell and ornaments; women paint their faces in Muscovy; breasts of women very long; women deadly and very hurtful in their looks; the undecent manner of riding used by the women of Muscovy; women bought and sold, and let out to hire in Persia; the manners of the young women amongst the savages of America'.

What would Hakluyt have said of an index to his PN made by a woman and a Scot? Barbarous and indecent.

SPANISH SURNAMES
A. T. Hall

Spanish surnames present problems to cataloguers and indexers which have become increasingly familiar in recent years as the cultural and commercial importance of Spanish has become more widely recognised. The cataloguing codes give little help although sound as far as they go; C. F. Gosnell's *Spanish personal names* deals thoroughly with the problem, but it is not always available in English libraries and is too long and philologically detailed to be suitable for quick reference. A need still appears to exist for a very brief description of the way in which Spanish surnames are built up, with the emphasis upon examples.

It is assumed that full use will be made of reference works to supplement the information given on title pages. Spanish authors are as unhelpful in this respect as English, indeed more so, for the latter usually hide Christian names only.

Having used his reference works the cataloguer is likely to be faced with a long and complicated name. His task is to pick out the operative part, that is the part inherited from the father. It may consist of a single word, e.g.

Jiménez, Juan Ramón

Often however the surname will be a compound, especially when the paternal name is a very common one such as García, López, Sánchez, Martínez or González. The following examples illustrate this form:

- García Lorca, Federico
- Peréz Galdós, Benito
- López Rubio, José
- Peréz Bonalde, Juan Antonio

Authors such as Lorca and Galdós are often referred to by the latter part of the name only and there may be a case for entering them under it, but that does not affect the structure of the name.

To the surname of one or more words will usually be added the mother's maiden name, the two being linked by a hyphen or y:

- Ortega y Gasset, José
- Peres y Peres, Ramón Domingo
- García Arista y Rivera, Gregorio