East African English (Kenya, Uganda, Tanzania): phonology

Josef Schmied

1. Introduction

The geographical limits of East Africa are not always clearly defined. Sometimes it ranges from the Red Sea down to the end of the Rift Valley somewhere in Mozambique. More usually the northern part (Ethiopia, Eritrea, Somalia, Djibuti and occasionally Sudan) is treated separately as North East Africa and the southern part with Zambia, Malawi and Zimbabwe is referred to as Central Africa, or with Mozambique, Namibia, Swaziland, Lesotho and the Republic of South Africa as Southern Africa (cf. also Schmied 1991). This contribution will concentrate on the “heartland” of Kenya, Uganda and Tanzania since they share a common “anglophone” background, despite some interesting differences in colonial heritage. These three countries are also characterised by a complex pattern of African first languages (mainly from the Bantu and Nilosaharan language families), a common lingua franca (Kiswahili) and an equally complex mixture of Christian, Islamic and native African religious and cultural beliefs. The revived East African Community (1967–1976 and from 1997) is a sociopolitical expression of this common heritage.

Although many sociolinguistic (like code-switching and borrowing) and linguistic features (like vowel mergers and syllable-tinted rhythm in pronunciation or overgeneralization in grammar and a formal tendency in style) can also be found in other parts of Africa, East African English (EAE) can be distinguished clearly enough from other varieties to justify a coherent descriptive entity. Today such a description can only be based on authentic data from three types of empirical sources: exemplary quotations from individual recorded utterances, a quantified and stratified pattern retrieved from a corpus of EAE, like ICE-East Africa (described in the part on morphology and syntax), or quantitative results from internet search engines or tools using the www as a corpus.

The following description tries to give a coherent picture by emphasizing reasons and patterns, rules or rather tendencies, since no reason is unique and no rule applies to 100%. These patterns are illustrated by short examples and finally set into a larger co- and context by examples from real English. As in most dialectal and sociolinguistic research one isolated marker may indicate a characteristic usage clearly, but usually only a cluster of features gives us the authentic flavour of EAE. In this sense it is a descriptive abstraction, not necessarily an established, recognised norm, which should become clear from the following survey.

1.1. Historical background

English came late to East Africa, since for a long time the colonialists were not really interested in Africa. Instead the Swahili towns on the coast (Kilwa, Zanzibar, Mombasa, Malindi, etc.) were used as stepping stones to the jewel of the imperial crown, India. The last decades of the 19th century saw the establishment of British and German colonial power, mainly through Zanzibar. The most famous East African explorers Livingstone and Stanley (who met at Ujiji in 1871) were accompanied by other explorers and missionaries. The German missionaries Kraft, who founded Rabai near Mombasa in 1846, and Rehmann were the first Europeans to see the snows of Mount Kilimanjaro and Mount Kenya – but were not believed in Europe. Methodists opened a mission near Mombasa in 1862, Anglicans in Zanzibar in 1863 and Catholics in Bagamoyo in 1868. Ten years later they moved along the traditional trading route inland through Morogoro and Tabora to Ujiji on Lake Tanganyika. This shows that European intrusion followed the established Swahili trade routes – and used their language, Kiswahili, as a lingua franca.

The brief German interlude (from Carl Peter’s first “treaties” in 1884 to World War I) established not German but Kiswahili in the colony, and laid the foundation for its success as a truly national language in Tanzania later.

After the war some differences in colonial administration between Kenya, Uganda and Tanganyika/Zanzibar can be attributed to the role of the white settlers in Kenya, but a lot of similarities remain, although Tanganyika was only held by the British as a Mandate from the League of Nations. The system of “indirect rule” through African leaders (developed by Lord Lugard in Nigeria) was introduced everywhere. In contrast to Rhodesia (esp. present-day Zimbabwe), where the settlers were given self-governance, the primacy of “African interests” was decided in 1923. This is documented in the Land Ordinance Act, which secured land rights for Africans and not only Europeans, over 2000 of whom had spread particularly in the “White Highlands” north of Mount Kenya and east of Mount Elgon. In reality, British rule established a three-class system with the white colonial officers and settlers at the top, the Indian in the middle and the Black Africans at the bottom.

The system of communication developed along the railway and highway lines with a few ethnic nuclei in fertile areas like Buganda, Kikuyuland/Mount
Kenya or Chagga/Mount Kilimanjaro. The Indians had come to East Africa partly via the Swahili trade in Zanzibar, but mainly for the construction of the railways. They stayed not only in the (railway) administration but also as traders with their small dukas in the centres, often as “middleman”, who could be accused of exploitation by the European settlers and even more by the Africans. This made them easy targets for dictator Idr Amin, who caused their exodus from Uganda in 1972, and also for Africanisation policies in the other new nations.

1.2. Colonial language policies

Despite British colonial rule, colonial language policy was not simply pro-English and more complex than is often assumed (cf. Spencer 1971). Of course, the various colonial administrations tried to regulate official language use in their territories. But this involved usually three types of language, the local “tribal” mother tongues and the African lingua franca (usually Kiswahili, only occasionally Luganda) besides English, for local, “intraterritorial” and international communication respectively. Other agents played a role as well, like the churches, who had enormous influence not only on church language but also on school language. Even the three British mission societies (the Universities Mission to Central Africa, the Church Mission Society and the London Mission Society) did not use English for evangelisation. The German missionary Krapf (in the services of the Church Mission Society) propagated a Latin spelling system for Kiswahili, which had been written in Arabic traditionally and maintained many Islamic connections, since he saw Kiswahili as “the most cultivated of dialects” and as a key to the inland languages. Protestant missions in general favoured (in Martin Luther’s tradition) “the language of the people”, i.e. the ethnic languages, but also the African lingua franca, Kiswahili. The Catholic church was usually more orthodox, supporting not only Latin in its services but also Kiswahili in their preaching.

Even the British administration in Tanzania did not introduce English wholesale after taking over the former German colony. Rather, they admired the efficient German system, which according to a report from 1921 “made it possible to communicate in writing with every akid and village headman, and in turn to receive from him reports written in Kiswahili”.

Thus English was established only in elitist circles when the colonial powers tried to regulate communication within the administrative, legal and educational system. The considerations summarised in a report by the Phelps-Stokes Fund (cf. Schmied 1991: 15) led to a basically trilingual language policy with the ethnic “vernacular” for local communication and basic education, Kiswahili in ethnically mixed centres and English for the highest functions in administration, law and education. This led to the foundation of the Interterritorial Language Committee in 1929, which developed into the East African Swahili Committee later, responsible for standardisation, orthography reform and expansion on the basis of the Zanzibari variety KiUnguja (and not the Kimvita of Mombasa). English was the language of instruction mainly in the few prestigious secondary schools, e.g. in King’s College, Budu, Uganda, the school for chiefs’ sons in Tabora or Alliance High in Nairobi, and of course in the first East African university, Makerere (founded as a Technical School in 1922 and as a University College in 1949).

It is important to remember that colonial language policies did not favour English, or other European languages, wholesale, but established a “trifocal” or trilingual system with (a) English as the elite and international language, (b) the regional lingua franca and (c) the “tribal” languages or “vernaculars” for local communication. The expansion of English down the social hierarchy began mainly at the end of colonial rule with the democratisation and expansion of education that was to prepare Africans for independence (cf. Schmied 1991: 18). After independence, surprisingly few changes occurred; although lip-service was usually paid to African languages. Only Tanzania made great progress towards expanding the functions of Kiswahili at the expense of English and local African languages.

1.3. Sociolinguistic background

1.3.1. The range of variation in English in Africa

One of the broadest categorisations of the English used in Africa is suggested by Angogo and Hancock (1980: 71), who distinguish the following types according to speakers:

(a) native English of African-born whites and expatriates;
(b) native English of locally-born Africans;
(c) non-native English spoken fluently as a second language (...);
(d) non-native English spoken imperfectly as a foreign language (...).

The first category, White African English, is relatively insignificant in East Africa today, although the influence of the early British and South African settlers may have been considerable. The other three categories of (Black) African English constitute a continuum of English forms, which ranges from ‘native’ to ‘second-language’ to ‘international’ varieties. It is worth noting, however, that these categories were used to illustrate differences between entire nations,
especially in the process of developing (hypothetical) national varieties of English. When it comes to analysing language forms which are actually used in Africa, international and intrapersonal variation, the individual speaker’s sociolinguistic background and the actual speech-act situation must be taken into consideration. At the individual level, the type of English spoken by Africans depends largely (i.e. if we ignore special exposure to English either through personal acquaintances or the modern mass media) on two factors: (a) their education, i.e. the length and degree of formal education in English, and (b) their occupation, i.e. the necessity for and amount of English used in everyday life.

The second category is also less important than in Southern or West Africa, although English may be used as the primary language even in the home in mixed marriages of highly educated partners.

The last category reflects, of course, less the colonial heritage than the role of English as the international language of science and technology, international development and communication today. But “broken” English, “school” English or “bad” English is usually looked down upon as a sign of little education and ridiculed, especially in Kenya, in literature or political campaigns (e.g. in cartoons in the daily newspapers).

Thus the varieties of EAfE show the characteristic features of New Englishes (cf. Platt, Weber and Ho 1984 or Hickey 2004), background, genesis and function. In particular they are not transmitted directly through native-speaker settlers; usage is formed mainly through its use as media of instruction in school and reinforced outside school; and they are used in public functions in the national educational, legal and administration system. Interestingly enough, the term New English is rarely used in East Africa, probably because Standard English even with EAfE pronunciation or as an (hypothetical) independent East African Standard is considered more appropriate.

1.3.2. The sociolinguistic situation today

The common cultural background of the three countries makes the sociolinguistic situation rather similar. The major difference is the status of Kiswahili: in Tanzania, it is the true national language, since it is spoken nation-wide as a lingua franca, learnt in a relatively homogeneous form (sometimes called “Government Swahili”) in all primary schools and used in most national functions including education in most secondary schools; in Kenya it is just losing its associations with the coast or with lower social positions; in Uganda it is unfortunately still associated with the military and the “troubled” times in the 1970s and 1980s. This leaves more room for English and the other East African languages in Uganda and Kenya.

The official status of English in government, parliament or jurisdiction is not always easy to establish, as conflicting laws, regulations and proclamations since independence 40 years ago may contradict each other. Whereas it is clearly the language of nation-wide politics in Uganda, it is rarely used in those functions in Tanzania. Kenya occupies a middle position in this regard.

English is not really associated with white settlers any more. Although distinct accents can still be heard in this group, they range outside the general national norm. The multilingual educated African elite invests large sums of money in “good education”, which is usually based on “good English”. The Asians in East Africa are usually equally multilingual, speaking not only their native languages, mainly Gujarati or Panjabi, but also their own versions of Kiswahili and English.

Knowledge and actual use of English are based on very rough estimates, since no nation-wide census data are available and the last language survey was sponsored by the Ford Foundation more than 30 years ago. Thus to say, for instance, that English is “spoken” by 30% in Uganda, 20% in Kenya and only 5% in Tanzania may give an indication of the (historical) differences in education, urbanisation, modernisation or internationalisation. However, this must be taken with great caution. Since English gives prestige, informants’ self-evaluations are unreliable, and nation-wide proficiency tests for national certificates of education often disappointing. The fact that even universities have started extensive course programmes in “Communication Skills” or even explicitly “Remedial English” reveals some of the problems at the highest level. The discussions can be followed even on the internet today in various contributions including numerous letters-to-the-editor to major national newspapers (e.g. “MUK enforces English for all” in The New Vision, Uganda’s leading daily 13/01/02). The key problem is that English is used as the language of instruction from upper primary school onward (in Uganda) and is thus the basis for all further education. The discussion is less about teaching English properly than teaching (other subjects) in English properly.

In all countries English is still (in Tanzania again?) a result and a symbol of good education and, directly or indirectly, a prerequisite for well-paid jobs with international links in trade and tourism. This is often reflected in popular debates on language attitudes in East Africa.

1.3.3. Language attitudes today

Attitudes towards languages in Africa can be heard in many debates, but systematic studies are rare and difficult. At least three types of attitudes have to be distinguished as far as English in East Africa are concerned.
The stereotyped notions on English are usually extremely positive. It is seen as “sophisticated” and “superior” (but also as “difficult” and “formal”). Such notions may however have little effect on attitudes towards practical language use and usage in East Africa. Usually East Africans do not really subscribe to language-inherent properties (like English is “cool and impersonal”, “colonial” or “European”), although it may be considered more appropriate for formal and official use than other African languages.

Language is mainly viewed in extremely practical terms, since it is too obvious that English is the international language of science and technology and worldwide communication. Thus international arguments in favour of English are also uncontroversial. Even the great supporter and translator of Kiswahili, President Nyerere of Tanzania, emphasised the importance of English calling it “the Kiswahili of the world”. The real issue is the use (and usage) of English in intra-national communication, especially in African schools. Although the first-language principle (based on UNESCO recommendations since the 1950s) is normally accepted by African educationalists, nationally minded Tanzanians support the use of Kiswahili from the first day at school, whereas internationally minded parents in Uganda advocate a “fast track” to English, which had been common at independence. The stage of switching to English is usually after lower primary (four school years) in Uganda and after secondary school in Tanzania, whereas in Kenya it is at the beginning of the four years of secondary school at the latest. The debate is most heated in Tanzania, where on the one hand in recent years many new private secondary schools have advertised English as a medium of instruction, while on the other hand even some universities have proposed teaching in Kiswahili. The same arguments pro and con have been used for decades (cf. Schmied 1991: chap. 7) and they can be detected again in most recent newspaper debates (e.g. in www.ippmedia.com).

In contrast to these debates on practical language issues, attitudes towards African varieties of English are rarely discussed outside scholarly circles. Accepting African forms is hardly openly admitted except in pronunciation, where “aping the British” is seen as highly unnatural. Grammar and syntax in particular are considered the glue that holds the diverging varieties of English together; and international intelligibility is deemed absolutely essential as the major asset of the international language cannot be jeopardised. Thus Standard English with African pronunciation may be accepted as an intranational norm, but Ugandan, Kenyan or Tanzanian English will not be tolerated at least in the near future. On the other hand the theoretical British norm is only upheld in books and rarely experienced in use in present-day Africa.

1.4. Reasons for East African forms of English

The reasons for the occurrence of African forms different from Standard English are manifold and can basically be attributed to at least four factors as far as their origin is concerned. For EAFE today the role of distinctly different native speaker English (e.g. Scottish English or even Scots) may be neglected, hence the importance of three major factor groups or reasons.

(a) Influence of the learners’ mother tongue and other African languages. Since English is learnt as a second language in East Africa, it is likely that features and strategies from first language acquisition are transferred; negative transfer is usually called interference. This has long been seen as the basic cause for African variation in English, because it obviously influences the pronunciation, often distinctly. Since non-African mother-tongue speakers as role-models are rare nowadays, common deviations become institutionalised and give a specific stamp to African English in its various forms. The great fear in Africa is that when one generation of poorly-trained African teachers passes on their English to the next generation, mother-tongue interference could be cumulative so that, with time, English could deviate more and more from accepted norms (like the minimal five-vowel system in EAFE below).

From today’s perspective, mother-tongue influence on African English seems to have been overestimated. Because English is for many Africans only one possible choice in their verbal repertoire, which will include more than one African language, it may be safer to assume the influence of a common substratum of the African languages known by the English user. Interestingly enough, some speakers of African English exhibit “interference features” although they do not derive from their mother tongues but from other languages used in the area. Furthermore, often several factors may converge.

(b) General language learning strategies. The influence of general psycholinguistic processes on a second language is very difficult to assess; it is only possible to compare input and output of the human brain and draw conclusions on cognitive processing. There is some evidence that language learners in general use simplification strategies at an early stage (it seem _that…), where morphological simplification may be supported by pronunciation simplification of an alveolar in front of a dental fricative). Later they try to reproduce memorised phrases from the target language, irrespective of the linguistic and pragmatic context (his/her level best seems to occur more often in African than in European English). From a certain stage onwards learners enjoy complicating their language and even tend to exaggerate typically English features (he is living in Eldoret is an overgeneralization
African pronunciations of English can be found at subphonemic, phonemic and supraphonemic levels.

Differences at the phonemic level are important because here differences of lexical meaning are maintained. This can be illustrated (and elicited) in minimal pairs like *ran* vs. *rant*, *lamp* vs. *lamp*, *heat* vs. *hate*, *bit* vs. *bit*, *show* vs. *shoe* and so on. Many Africans would not distinguish clearly in pronunciation between the elements of such pairs tending towards the same pronunciation (homophony).

2.1. Consonants

Among the consonants, *r/ and /l/ are a particularly infamous pair for many Bantu speakers, both rendered as one and the same, often intermediate sound between /l/ and /r/ of honour instead of /l/, for instance. In Kenya, the pair is a clear subnational identifier, since even educated Gikuyu clearly tend towards /l/ and the neighbouring Embu towards /r/. Occasionally the sets /t/, /j/ and /z/, /s/, /s/ and /r/, /t/ are not distinguished clearly either. Other problematic consonants are *f/ and /v/, which often deviate in the direction of /f/ and /v/ or, sometimes, /z/ and /s/, /v/ and /l/. Most of these deviations are registered by East Africans as subnational peculiarities. However, even though phoneme mergers are clearly noticeable, they do not endanger the consonant system as a whole. These examples show three general tendencies for consonants:

(a) The merger of /v/ and /l/ is wide-spread, but still stigmatized.
(b) Intrusive or deleted (as a hypercorrect tendency) nasals, especially /n/ in front of plosives, are common, since some languages like Gikuyu have homorganic nasal consonants.
(c) English fricatives are generally difficult but particular deviations are often restricted to certain ethnic groups

At the subphonemic level, which is not important for differences in meaning but gives the English spoken a particular colouring, an interesting consonant is /θ/. As in most English varieties, /θ/ is usually only articulated in pre-vocalic positions (i.e. EAFE is non-rhotic) and its pronunciation varies considerably (whether it is rolled or flapped).

2.2. Vowels

A comparison of the English phoneme system with that of most African languages shows that the major difference are not the consonants but the few vowel contrasts compared to the extensive English vowel system. Thus the vowel system of EAFE deviates systematically, vowels tend to merge, because...
the extreme range of the English vowel continuum is not covered by the underlying African systems of, for instance, the Bantu languages. On the whole three basic generalisations may be made for English vowels:

(a) Length differences in vowels are levelled and not used phonemically; thus FLEECE and KIT, GOOSE and FOOT, THOUGHT and NORTH, and BATH, STRUT and TRAP tend to merge. This is not only a quantitative, but also a qualitative shift, as usually short vowels in EAFE are longer and more peripheral than in RP, especially /æ/ tends towards /ə/, /u/ towards /ʌ/, /a/ towards /o/ and /a/ and /æ/ towards /u/.

(b) The central vowels of STRUT, NURSE and letter, are avoided and tend towards half-open or open positions of BATH and, less often, DRESS. This conforms to the tendency towards more extreme articulatory positions of the tongue in general. It leads (together with the syllable-timing, cf. 2.2.3. below) to the phenomenon that, whereas vowels in full syllables tend to be underdifferentiated, those in unstressed ones may be overdifferentiated. Hence the difference between policem an and policeman or between the suffixes -ance and -ence may be clearer than in Standard English.

(c) Diphthongs tend to have only marginal status and to be monophthongized. In the short closing diphthongs MOUTH and particularly FACE the second element is hardly heard in many African varieties (as in Scotland; thus coinciding almost with the DRESS vowel). Diphthongs with a longer glide are preserved, but they are not really pronounced as falling diphthongs, i.e. with less emphasis on the second element than on the first, but rather as double monophthongs (e.g. [əʊ], [ɔu]). All the centring diphthongs (NEAR, SQUARE, CURE) tend to be pronounced as opening diphthongs or double monophthongs ([ɪa, ea, ua]; cf. tendency (b) above).

These general observations on vowel pronunciation seem to hold for so many African varieties that this cannot be interpreted merely as a product of mother-tongue interference. In fact, some of these features of "Africanization" have already been predicted by Gimson (1980: 306) in very general terms, i.e. without any reference to Africa, because of the particularly complex structure of the English vowel system:

... the full systems [20 vowels and 24 consonants] must be regarded as complex compared with the systems of many other languages. In particular, the opposition of the close vowels /ɪ/-ɪ/, /ʊ/-ʌ/, the existence of a central long vowel /ə/ and the delicately differentiated front vowel set of /ɪ/-ɪ/-ɪ/-ɪ/, together with the significant or conditioned variations of vowel length, will pose problems to many foreign learners.

Finally, it is worth considering the vowel system as a whole (in terms of Wells 1982). In contrast to West African varieties, which tend towards a basic seven-vowel system, East African varieties tend towards a basic five-vowel system (Table 1).

An interesting single parameter in this respect is the deviation of the RP long central NURSE vowel: it tends toward a back vowel /ə/ in West African varieties, towards a front vowel /æ/ in Eastern and towards /e/ in Southern African varieties, but these tendencies are not uniform in a region, neither across all ethnic groups, nor across the lexicon, as in Tanzania girl tends towards front (DRESS) and turn towards back pronunciation (START) because of spelling pronunciation – cf. 1.4 (c) above.

2.3. Suprasegmental patterns

Other important features of African English are supraphonemic, i.e. related to phoneme sequences, word stress, intonation and general rhythmic patterns. Many of these phenomena are difficult to describe, so that some examples from three particularly striking aspects may suffice: the avoidance of consonant clusters, the more regular word stress and the special rhythm.

2.3.1. Phonotactic patterns

Consonant clusters are a major phonotactic problem in EAFE, as many African languages have a relatively strict consonant-vowel syllable structure (often CV-CV-CV). This explains African English tendencies with regard to consonant
clustering and final consonants. Consonant clusters tend to be dissolved, either by dropping one some of the consonants involved or by splitting them through the insertion of vowels.

Final consonants are dropped when there are two or more in a sequence, e.g. in [neks] for next and [ben] or [han] for hand. But this tendency also occurs in native-speaker English and its frequency seems to vary a lot. The general rule appears to be that if plosives are preceded by fricatives, they are dropped in word-final position; if they are preceded by other plosives or occur in non-final position they are split by vowels inserted between the consonants. A similar phenomenon occurs when final vowels are added to closed syllables, i.e. syllables ending in consonants. The vowels inserted or added are normally [i] or [u], depending on the occurrence of palatal or velar consonants in the environment (e.g. [hospi]tal for hospital or [spirit] for spring) or on vowel harmony (e.g. in [buku] for book).

2.3.2. Word stress
A particularly striking feature is the African tendency towards more regular stress rhythms. Again, the problem lies often within the English tendencies to maintain partly the Romance principle of word stress on the penultimate syllable in contrast to the general Germanic principle of stressing the stem. This leads to differences in word stress between etymologically obviously related words when prefixes and suffixes are added, such as ‘admire’ is not stressed on the same syllable as ‘admiration’ and ‘admirable’; here East Africans are tempted to stress [adˈmaɪərəˈble] and sometimes even [adˈmaɪərəˈfən] just like [adˈmaɪə]. Of course, the problem of a whole series of unstressed syllables is intrinsic to British Standard English; even American English has secondary stress regularly in words like secretary. Thus the final word stress on suffixes like ‘-ize’ and particularly ‘-ate’ may not be that surprising in theory, but it may be in practice. The tendency is not systematic, since in most cases the frequency and familiarity of words supports the “correct” British English pronunciation. In other cases better known, etymologically related or similar words may serve as models. This tendency faces the problem that Standard English uses stress to indicate word class. In EAfE the distinction between the verbs ‘protest’, ‘alternate’, ‘attribute’ through stress is not always maintained.

2.3.3. Syllable-timed rhythm
The most striking feature of African Englishes is the tendency towards a syllable-timed rather than a stress-timed rhythm. Thus an EAfE speaker tends to give all syllables more or less equal stress and does not “cram” up to three unstressed syllables together into one stress unit to form so-called “weak” forms as speakers of British English do. This underlying pattern accounts for most suprasegmental patterns in EAfE mentioned above (e.g. to give too much weight to unstressed syllables), and its sometimes unfamiliar rhythm. It may also cause misunderstandings in intercultural communication, when EAfE may be misjudged as “unfriendly machine-gun fire” or “childish song-song”. The interesting question is whether this helps communication with francophone Africans, whose speech is also syllable-timed.

Exercises and study questions
1. ‘Whereas vowels of EAfE in full syllables tend to be underdifferentiated, those in unstressed ones tend to be overdifferentiated’ – discuss.
2. ‘Diphthongs of EAfE tend to have only marginal status and to be monophthongized’ – discuss.
3. Compare the vowel inventory of EAfE with that of a West African variety like GhE.
4. Compare the vowel inventory of EAfE with that of BISAfE.
5. Compare the treatment of consonants in EAfE with that of a West African variety like GhE.

Selected references
Please consult the General references for titles mentioned in the text but not included in the references below. For a full bibliography see the accompanying CD-ROM.

Angogo, Rachel and Hancock, Ian

Gimson, Alfred Charles