INSTITUTE OF CURRENT WORLD AFFAIRS

CHGO-4
On Learning Chinese

The Pines, Nuns Walk,
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England.

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Institute of Current World Affairs,
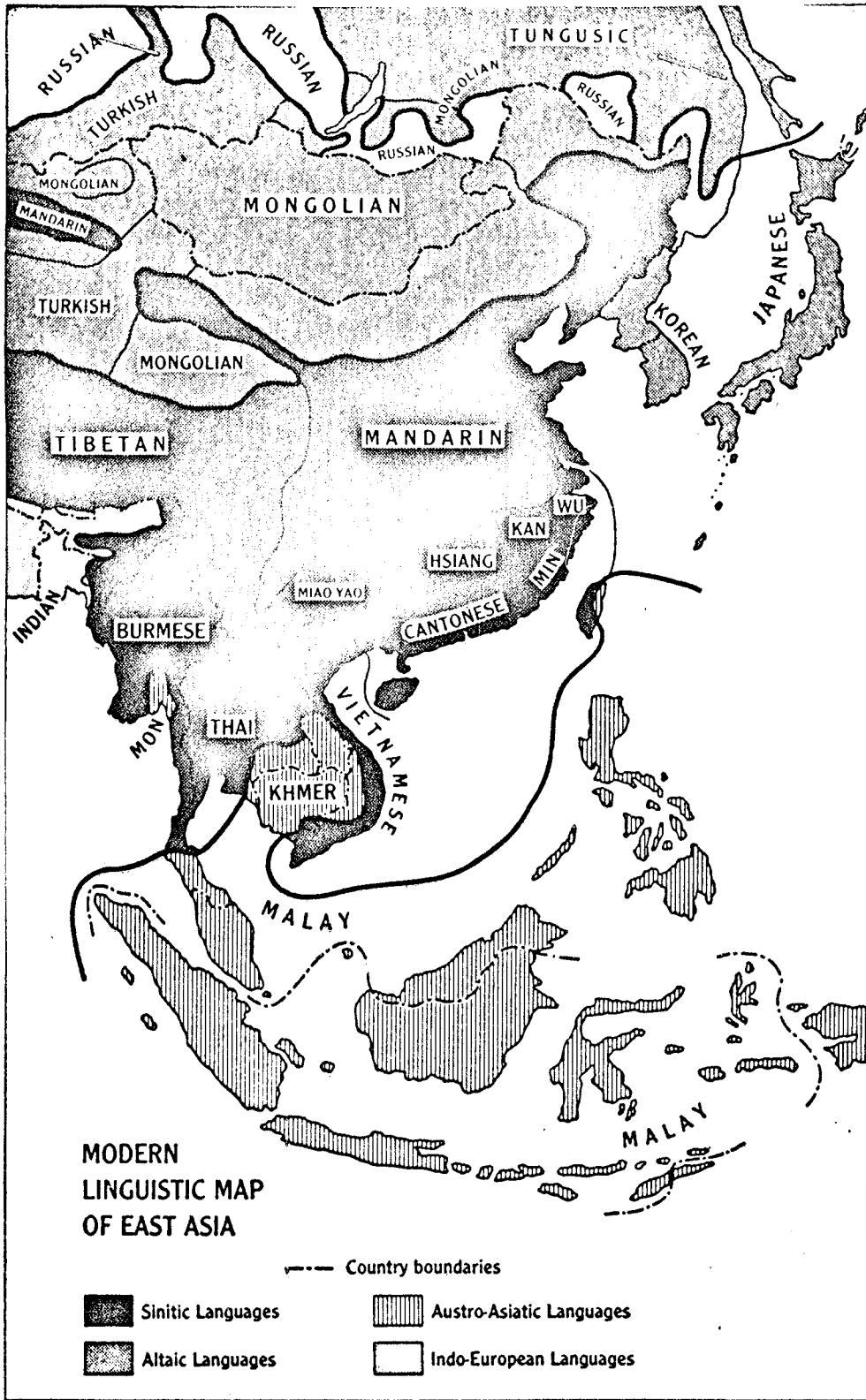366 Madison Avenue,
New York 17, N.Y.

Dear Dick,

"You are much too old to start learning Chinese" - (at 32);
"Chinese is surely the Everest of languages to learn"; "We bet
you'll be back in the oil exploration game within three months!".
These were just typical of the comments that greeted me when it
was known I was about to embark on a study of Chinese. They
represent, I think, the commonly held notion that Chinese is a
difficult language to learn. Just how true is this notion? How
does one set about learning a language so obviously different from
the European languages? How long is it likely to take a scientist
to learn enough Chinese to translate a Chinese scientific paper?
Let me try to answer these questions in the light of eight months
study of the Chinese language.

The method of learning Chinese depends on the objectives
of the study. One approach is needed to learn how to speak the
language, another to read it, and yet another is required to learn
the classical Chinese which was the medium of nearly all written
Chinese until recent years. For my own part, my prime interest
is to learn how to read current Chinese scientific literature, with
a secondary interest in learning the spoken language. This has
meant studying all three phases, spoken, written, and to a lesser
extent, classical.

A glance at the language map shows that a variety of
dialects are spoken in China. These dialects are really different
languages, so that it was first necessary to decide which I was
going to learn. The choice was a simple one. The Mandarin
dialect is spoken by about two-thirds of the Chinese, over about
three-quarters of the Country. Also, the Communists, intent on
unifying China, are trying to make Mandarin the official lingua
franca. This is only extending to all the Chinese what has long
been practised by the ruling class, and Peking Mandarin has been
known as the "guanhuah" - the language of the officials. So,
unless there had been special reasons for doing otherwise, Mandarin
was the logical choice.

After this preliminary decision I was ready to begin my
study of the spoken language. The first shock came when I learned
that a person speaking Mandarin only has 412 sounds at his disposal
in which to express the entire Chinese vocabulary. Actually these

MODERN
LINGUISTIC MAP
OF EAST ASIA

-·-·- Country boundaries

Sinitic Languages   Austro-Asiatic Languages

Altaic Languages   Indo-European Languages

From Reischauer's and Fairbank's "East Asia: The Great Tradition"
(George Allen and Unwin Limited).

412 sounds are increased to about 1,280 by using four different
tones (more about this in a moment), but when it is realized that
there are approximately 49,000 characters in the large Chinese
dictionaries, it is evident that each sound must have about forty
different meanings.   However, in everyday speech things are not
quite that bad.   Many of the 49,000 characters are no longer used,
and a knowledge of four to six thousand characters is quite adequate
for most purposes.   Also, although the majority of words are mono-
syllabic, a good number are made up by stringing two, three, or even
four of the basic sounds together.   Still, the fact remains that
one of the main characteristics of the Chinese language is the large
number of homonyms it possesses.   We are quite familiar with
homonyms in the English language, and rarely get confused with such
words as 'so', 'sew' and 'sow', or 'bear' and 'bare'.   The context
always makes the meaning clear.   The Chinese must go to a little
more trouble to distinguish which homonym they are using and
frequently revert to saying such things as 'huooche de huoo' -
meaning the 'huoo' that occurs in 'huooche' (i.e. the huoo meaning
fire, since it occurs in the word fire carriage or locomotive).
They also distinguish between homonyms when talking by sketching
the correct character in the palm of the hand, and this immediately
makes their meaning explicit.

        Those of us who speak English, frequently pronounce words
with different tones in order to express different emotions.   On
the other hand, the Chinese, in common with speakers of the other
Sinitic languages (see map), use different tonal pronunciations to
indicate different word meanings.   The Mandarin dialect makes use
of four tones (high even, rising, falling-rising, and falling) and
these can be approximated reasonably well by pronouncing any English
word with certain different emotions.   For example, supposing a man
says in a monotonous and slightly plaintive high-pitched voice, -
"Dead".   A second man repeats the word, first interrogatively and
then incredulously, "Dead? - Dead!" to which the first man says,
this time in a decisive voice, "Dead".   These four ways of saying
the one word give a pretty good indication of how the four tones
sound.   If we pronounced the Chinese sound 'ma' in these four ways
we would have said (1) an affectionate term for mother;   (2) hemp;
(3) horse;   and (4) to curse.

        In order to aid the learning process most students of
Chinese use some system of writing Chinese sounds in the Latin
alphabet.   Unfortunately this whole problem of romanization is a
highly controversial subject, and a multitude of different systems
exist to help confuse the poor beginner.   The first attempts to
romanize Chinese began when the Jesuit missions visited China in
the latter part of the Sixteenth Century, but the most widely used
modern system is that devised by Wade, and later modified by Giles.
For the beginner, this method suffers from the defect that the
tones are indicated by numeral suffixes, and it is extremely diffi-
cult to memorize both a spelling and a number.   Other systems use
signs to indicate the tones (such as — for first tone, ╱ for rising
second tone, ╲╱ for third tone and ╲ for fourth tone).   Still
another system varies the spelling of the word to indicate the tone,

and this was the system which we used at the School of Oriental and African Studies, and which I will use in this letter.   In addition, the French, the Germans, and the Chinese themselves all have their own systems.   A few days of intensive effort are sufficient to master any of the romanizations and for the most part they are only a crutch which is discarded after about a year's study.

Having learnt the 1,280 Chinese sounds I was ready to learn the language proper.   The simplicity of Chinese grammar came as a pleasant surprise.   Verbs do not require conjugating, and nouns are non-declinable.   Most of the grammatical rules relate to word order, and even here there are very few exceptions to complicate matters.   It is, of course, the numerous exceptions to rules which make the grammar of some languages so complex.

Once the basic grammatical rules are known, the learning of colloquial Chinese is much the same as learning any other language. Constant repetition and exposure to Chinese speaking people are the main requirements.   There are, as in most languages, a number of little sayings which defy literal translation and which must be learnt by heart.   They represent Chinese proverbs or some feature of the Chinese way of thinking.   They almost always occur as a group of four characters, and special dictionaries of 'Four character phrases' are published.

So far the student should encounter no great difficulty. Colloquial Chinese is no more difficult to learn than most European languages, and in many respects it is a good deal simpler.   The chief source of trouble for the beginner is the tones, but even this is not so serious in actual speech because only the emphasized words are pronounced with tone (a fact which instructors seem lothe to admit to students.).   When I first learned that Chinese is a tonal language I was a little apprehensive, since I have frequently been told in no uncertain terms that I am tone deaf.   However, a tone deaf person has difficulty in determining the absolute pitch or frequency of a sound, but he should not have difficulty in distinguishing a change of pitch, which is what occurs in the Chinese tones.   So far in my experience homonyms have not given rise to as much confusion as might be expected.   Possibly, when I've been exposed to more of them, I might change my opinion.

You will have noted that I haven't yet mentioned anything about Chinese characters.   It is, of course, quite possible to learn to speak a language without learning to read and write it, and this is certainly true of Chinese.   But in order to really understand Chinese culture it is essential to know the Chinese characters.   It is generally thought that it must be very difficult to learn characters, but this is not so.   Once an understanding of the make-up of the characters is obtained it is just a case of memory work.   It is interesting to speculate on the possible influence this emphasis on memory work, rather than on creative thought, might have had on the development of the Chinese civilization.   It is a long process learning the basic four or five

thousand characters, but it is not difficult.   I must admit that
when tired or lazy, rather than really think, I have turned to
learning characters.   It is relaxing to sit in a comfortable chair
in front of a fire with a hundred character cards and just memorize!

          I would like now to explain a little about the make-up of
Chinese characters.   I'm afraid what I have to say is not original.
Something similar occurs in all the introductory Chinese texts,
they all have about the same approach, and they all use the same
examples - but it appears to be the best approach and the examples
are the most illustrative of the different points.

          A thousand years before Christ the Chinese already had
the foundations of a written language.   Oracle bones have been
found at the ancient Shan Dynasty capital of Anyang which have
characters inscribed upon them.   The remarkable thing is that
some of these characters can be recognized by a non-expert as
being the same as those used in today's newspapers.

          The first characters were almost certainly pictures of
concrete objects such as animals, heavenly bodies, plants and tools.
Although the drawings of many of these have changed over the past
three thousand years, some are still clearly recognizable. Examples
of these pictographs are shown on the next page.   Ren (man), ryh
(sun), che (carriage - a picture of an ancient chariot in plan view)
and shan (mountain) are all fairly clear pictures of the objects
they represent.   Others, although reasonable facsimiles of the
different objects in archaic times, are no longer recognizable.
Amongst these are neu (woman), tzyy (child) and shyy (pig).   Some
of these pictographs have proved valuable in the history of tech-
nology.   For example the character jou - meaning boat, has been
found on the oracle bones of the Second Millenium B.C., and Needham
has pointed out that it is not a picture of a boat with a stem and
stern post such as Europeans imagine a boat, but it had transom
bulkheads and a square end construction.

          Pictographs soon proved to be insufficient to meet the
needs of the more abstract words, and so a new type of character
was evolved.   These are the ideographs and the simplest ones are
the characters for one, two and three, and above and below.   These
are all illustrated on the following page.   The next stage in the
development of the ideographs occurred when simple pictographs were
combined, often in ingenious ways, to form compounds.   Thus, a
woman and a child together represent the spoken word hao, which
means love or good.   A woman and a broom make up the character
meaning wife, and the pictograph of strength under the pictograph
for field, implying one who uses strength in the field, means male.
One of the most ingenious in this class is the word for thirst,
which shows a man imprisoned in an enclosure with the sun beating
down overhead and a splash of water outside.   A woman under a roof
is the character for peace, and a pig under a roof the character
for home.   Not unexpectedly the sun and moon together form the
character for bright.   But I think my favourite character is the
one for 'to believe' or 'truth'.   In this the Chinese showed their

Examples of Chinese Characters

1. ## Pictographs

人 ren (man)   女 neu (woman)

日 ryh (sun)   子 tzyy (child)

車 che (carriage)   豕 shyy (pig)

山 shan (mountain)   舟 jou (boat)

2. ## Ideographs

一, 二, 三 , 1, ell, san (1,2,3)   渴 kee (thirst)

上 shanq (above)   安 an (peace)

下 shiah (below)   家 jia (home)

好 hao (good)   明 ming (bright)

婦 fuh (wife)   信 shinn (believe or truth)

男 nan (male)

3. ## Determinitive - Phonetic Compounds

Using 方 fang (square) as phonetic:

(女) + (方) = 妨 : neu (woman) + fang (square) = fang (hinder)

(土) + (方) = 坊 : tuu (earth) + fang (square) = fang (street
                                                    or region)

(艹) + (方) = 芳 : tsao (grass) + fang (square) = fang (fragrant)

(糸) + (方) = 紡 : sy (silk) + fang (square) = fang (to spin)

(言) + (方) = 訪 : ian (word) + fang (square) = fang (to inquire)

belief in the goodness of human nature by putting a man standing by
his word.   There are several hundred of these ideographs in use to-
day, and they constitute the most entertaining group of characters.

The next step in the development of the written language
marks the first use of the phonetic concept.   The early Chinese
script writers actually borrowed a character which had the same
sound as the word they wanted to write.   For example, there was a
word which today is pronounced 'lai' and which means 'to come'.
There was another word 'lai' meaning wheat, and for this a pictogram
had been invented.   So when the Chinese wanted to write the word
'lai' (to come) they simply borrowed the character which had the
same sound but which meant wheat.   Thus the sentence 'The king came
to the palace' would read 'The King wheat palace', and it was assumed
that the reader would be sufficiently intelligent to realize the trick.

This was all very well provided the substitutions were few
in number, and were for identical sounds, but when the substitutions
were made for sounds which were only similar it was obvious that
confusion would soon follow.   In order to avoid this confusion a
clever device was used.   To the phonetic part of the character was
added a second part which indicated the general category within which
the meaning of the word was to be sought.   This second part was
called the determinative or signific, and using this device a whole
series of words having the same sound could be written without con-
fusion.   An example will make this clear.   There are twenty or
thirty words all pronounced 'fang'.   They can mean: square; street;
resembling; hinder; guard against; let go; etc.   The character
fang meaning square already existed, so the Chinese took this and
used it as the phonetic part to form the other characters.   Thus -
the character for earth pronounced 'tuu' combined with the character
for square, pronounced 'fang', makes the character for street or
region, also pronounced 'fang'.   Similarly:

          tsao (grass) + fang (square) = fang (fragrant)
          sy (silk)   + fang (square) = fang (to spin)
          ian (word)   + fang (square) = fang (to inquire)
          neu (woman) + fang (square) = fang (to hinder).

Almost 95% of the characters used today fall into this
last group of characters, i.e. they have a determinative and a
phonetic.   The determinatives have formed the basis of a method
for classifying characters which is used in many Chinese diction-
aries.   214 characters, most of them determinatives, were selected
and called radicals.   Since at least one of these radicals occurs
in every Chinese character, all the characters could be grouped into
214 subdivisions.   These subdivisions are further broken down by
arranging the characters according to the number of strokes needed
to write them.   So, to look up a character in a dictionary, one
first decides on the radical, then counts the number of remaining
strokes and then searches through the list of characters in the
dictionary which occur under this radical and this number of strokes.

The English scientist and sinologist, Joseph Needham, has

pointed out a chemical analogy which should help scientists to learn characters.   He suggests characters are like molecules made up of the permutations and combinations of 214 different kinds of atoms (the radicals).   This is true, he says, because nearly all the phonetic parts of the characters can be subdivided into radicals.   There can be as many as seven atoms in one molecule, and atoms may repeat as if forming a crystal, with as many as three identical ones in one character.   The characters can then be remembered by an equation, much like a chemical formula. For example:

Hao (good) = 1 (woman) + 1 (child)

好   = 1 (女) + 1 (子)

Sen (undergrowth) = 3 (tree)

森   = 3 (木)

Huan (rejoice) = 1 (grass) + 2 (mouth) + 1 (short tailed bird) + 1 (owe money)

歡   = 1 (艹) + 2 (口) + 1 (隹) + 1 (欠)

This last example illustrates quite well that there is nothing very logical about the make up of many of the characters when analysed in this manner.   But since there are only 214 radicals to remember I have found this equation technique to be very helpful.

I have discussed the make-up of characters in some detail because I wanted to try and show that they are not just the hodge-podge of random strokes that they appear to be to the uninitiated.   Their make-up is often entertaining and once the radicals and the first few hundred basic characters have been learned the rest is a problem of remembering the little equations. A non-Chinese adult should be able to learn about two thousand characters in a year, and since five to six thousand characters are adequate for most purposes, these can be acquired in about three years study.

If then both colloquial Chinese and the characters are not difficult to learn, is the generally held concept that Chinese is a difficult language, a myth?   Unfortunately for the student the answer is - no, it is not a myth.   The difficulty lies in the written language - classical Chinese.

One of the most important things about Chinese characters is the fact that they are understood by literate Chinese whatever their dialect.   They will of course pronounce them with different sounds but their meaning will be the same.   Not only that but the written style has been roughly the same during the past three thousand years, so that the Chinese educated in this style of writing can read the works of Confucius just as Confucius wrote them.

Research by the Swedish sinologist Karlgren has shown

that Chinese in ancient times was far richer in sounds than it is
at present.   There were fewer homonyms and as a result the language
was much more terse.   As the sounds became fewer and homonyms
became more frequent, so the spoken style changed in order to main-
tain clarity.   The written style had no need to change because the
meaning of the characters was unambiguous.   Karlgren illustrates
this with the following example.   Consider the sentence written:

我見兩人

This means "I see two men", and is pronounced in present Mandarin
dialect as "Woo jiann leang ren".   The meaning as shown by the
characters is quite explicit, but the spoken "Woo jiann leang ren"
can either mean "I see two men" or "I step on two threads".   In
order to distinguish which is meant the colloquial phrase would be:

       Woo kann jiann leang koou ren
       I   look see   two mouth men

It was in this sort of way that the two styles diverged.

        The difficulty of the literary style lies largely in its
extreme terseness.   There is also the problem of knowing which
part of speech a particular character represents; for example, a
character may be used in one sentence as a noun, in the next as a
verb, in another as an adjective and so on.   In addition, there is
frequent use of proverbs only half stated, the writers expecting the
educated reader to know the conclusion.   It is as though English
writing were full of phrases like: "A bird in the hand", or "Too
many cooks", the writer assuming that everyone knows the complete
proverb.   Therefore in order to understand classical Chinese one
must be able to think like a Chinese.   The student (at the School
of Oriental and African Studies) is told that the best way to really
learn the subject is to memorize complete passages, and it is
generally recognised that it takes many years of intensive study to
obtain a complete understanding.

        Fortunately for the scientist interested in reading
current Chinese periodicals there occurred in 1917 an event which
had a profound effect on the style of writing.   This event was the
start of the literary revolution, in which the idea of writing in
the colloquial style was promulgated.   The idea caught on slowly
but by 1949 about half the scientific publications were written in
the colloquial style.   The Communists have further promulgated the
idea, so that now the majority of the scientific writing is in this
style.   Much depends on the age of an author.   If he was educated
in the days when the literary style was in vogue he is more likely
to write in that style, a younger man is more likely to write in
the colloquial style.   The prestige value of using classical
Chinese dies slowly and every now and again in scientific writing
one comes across a young writer including classical phrases.

        There are two other points I would like to mention.   The
first relates to the vocabulary of scientific Chinese, the other to
the recent language reforms introduced by the Communists.   Both
have a bearing on a scientist 'learning Chinese'.

Many new words have been coined in recent years, particularly in science.   How are these words rendered in Chinese? New characters have been invented for a few, such as for the chemical elements, but for the most part new words are rendered by stringing single well known characters together.   For example, a barometer is a 'wind-rain-indicator', a motor is an 'emit-motion-machine', a torpedo a 'thunder-fish', and can you guess what a 'lightning-particle-revealing-infinitesimal-thing-mirror' can be? The answer:- an electron microscope!   The main problem here for the scientific translator is the scarcity of technical dictionaries and glossaries.   The Chinese have published a few, but these are now unobtainable (in England), except in one or two specialized libraries.   There does exist a recent Chinese-Russian technical dictionary and this must suffice for the time being.

Another problem for the translator is that of transliteration.   Names of people and places are written using a combination of characters which sound similar to the original name.   For example, Ohm (the man who gave us the famous electrical law) is rendered by the two characters pronounced 'Ou Muu', which, if translated literally would mean 'European mother'.   Usually there is no indication that a given combination of characters is a transliteration and the only solution is to compile an exhaustive list of such transliterations.
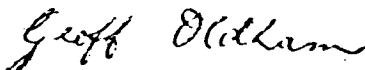
New reforms by the Communist Government have made the Chinese language students' job even more complex.   They have simplified fifty-four of the commonly used radicals, and about eight hundred of the characters.   The simplified characters have fewer strokes and are easier to write.   But since the reforms are so new, some publishing houses use the new characters, and some still use the old.   This means the student has to learn both versions and his work is therefore doubled.

Other language reforms include the teaching of Mandarin as a lingua franca, and the introduction of a twenty-six letter phonetic alphabet.   It is interesting that the Chinese have chosen the Latin alphabet rather than the Russian cyrallic alphabet. The main purpose of the alphabet appears to be for teaching illiterate Chinese the sounds of the characters, although it is also beginning to be used for sending telegrams and for transliteration.   There is no indication at present that the Communists intend to replace the characters with their new romanization, so the prospective student of written Chinese has no alternative but to learn the characters.

Just what are we to conclude from all this?   I think first of all we should conclude that Chinese is not an insuperably difficult language to learn.   True there are problems, and at first the novelty of tones, characters and homonyms leaves the beginner somewhat bewildered.   If I had tried to write this letter last Christmas, after ten weeks of study I'm sure I would have been much more pessimistic.   The most difficult part is mastering classical Chinese.   The scientist interested in current Chinese

scientific writing should have some knowledge of this subject, but a complete mastery is not required.   It would have been quite a different story fifty years ago, and anyone intent on studying the history of science must be fully cognizant with the literary style. I now estimate that after two years of intensive study a scientist should be able to read Chinese scientific material reasonably well.

Sincerely,

C.H.G. Oldham.