ICE CORE DRILLING. Edited by John F.  
Splettstoesser. Lincoln, Nebraska: University  
of Nebraska Press, 1976. 11 x 8 1/2 inches,  
soft cover, 200 pages, illustrated. $7.95.  

There are, of course, many good reasons  
for wanting to obtain ice cores from glaciers,  
but with the recent upsurge of interest in  
climatic change studies, and the discovery  
that deep ice cores can yield information  
about ancient climatic changes, this publica-  
tion is indeed a timely one. It essentially  
contains papers presented at a symposium on  
ice core drilling held in Lincoln, Nebraska  
on August 28-30, 1974. Only two of the sixteen  
papers and one abstract have been published  
elsewhere, and another paper (not presented  
at the symposium) was included because of  
its direct relevance to the subject.  

A wide variety of drill types (designed for  
different ice depths and temperatures) are  
described in the volume, so that the practis-  
ing field glaciologist is able to obtain a good  
review of the state of the art, at least up to  
1974. The order of the papers (alphabetical  
by first author) is rather distracting. For in-  
fstance, a centrally located paper by M.  
Mellor and P. V. Sellman, General Consider-  
ations for Drill System Design, should  
logically be the first paper, and an adjacent  
paper by C. C. Langway, Jr., The Polar Ice  
Core Storage Facility at USA CRREL, last,  
with the remainder of the technical papers  
grouped in some order between them. How-  
ever, these cosmetic effects may be overlook-  
ed as the volume was printed "in the interests  
of timeliness and economy . . ." and the  
alphabetical ordering of articles may just be  
one reflection of these facts.  

Three of the articles do not actually deal  
with coring. K. Philberth's paper, The Ther-  
mal Probe Deep Drilling Method by EGIG  
in 1968 at Station Jarl Jøset, Central Green-  
land, describes the very ingenious, but now  
well-known, remote probe which is, itself,  
non-retrievable. The abstract by A. Higashi  
and H. Shoji, Mechanical Properties of Ant-  
artic Deep Core Ice, contains information  
which might be useful for future deep coring  
operations, as well as theoretical studies. The  
paper by W. D. Harrison and B. Kamb,  
Drilling to Observe Subglacial Conditions and  
Sliding Motion, provides a discussion of cur-  
rent methods for penetrating debris-laden ice  
to the bed of the glacier in order to observe  
or monitor the processes taking place there.  
Each of these papers is interesting in its own  
right and may have peripheral relevance to  
some future ice core drilling.  

The international nature of the participa-  
tion in ice core drilling operations is shown  
by the authorship of the above, and by the  
remaining papers. I. G. Bird expounds on  
Thermal Ice Drilling: Australian Develop-  
ments and Experience in the Antarctic;  
F. Gillet, D. Donnou and G. Ricou of France  
describe A New Electrothermal Drill for  
Coring in Ice; B. Lyle Hansen of the United  
States gives a prospectus on Deep Core  
Drilling in the East Antarctic Ice Sheet;  
Roger leB. Hooke describes two versions of  
the University of Minnesota Ice Drill;  
S. J. Johnsen of Denmark describes shallow  
snow sampling devices developed for stable  
isotope studies in Near-surface Snow Sam-  
ping Devices; Ye. S. Korotkevich and B. B.  
Kudryashov of the U.S.S.R., expound on  
Thermal Ice Drilling: Australian Develop-  
sions, using electro-thermal and electro-  
mechanical core drills; W. S. B. Paterson of  
Canada describes in Thermal Core Drilling  
in Ice Caps in Arctic Canada the programme  
carried out by the Polar Continental Shelf  
Project on Devon Island; J. H. Rand of the  
United States Army Cold Regions Research  
and Engineering Laboratory (CRREL) gives  
some details of the new USA CRREL Shal-  
low (100-metre electro-mechanical core)  
Drill; Heinrich Rufli, Bernhard Stauffer and  
Hans Oeschger of Switzerland, in their paper  
Lightweight 50-Meter Core Drill for Firn  
and Ice, present details of a similar drill,  
which now (in 1976) has been modified and  
tested to handle holes up to 100 metres in  
depth. This latter type of drill is in great  
demand and at least one other country  
(Denmark) has built and operated a similar  
device. Yusio Suzuki of Japan gives details  
of Deep Core Drilling by Japanese Antarctic  
Expeditions using thermal and electro drills  
(the latter is the same as the electro-mechani-  
cal drill). Philip L. Hodge of the United  
States expounds on Solid Nose and Coring  
Thermal Drills for Temperate Ice, and Pall  
Theodorsson covers Thermal and Mechanical  
Drilling in Temperate Ice in Icelandic Glac-  
iers. In most cases, adequate details of the  
 drilled design are presented in very generali- 
zations on drawings.  

The volume is attractively presented in  
large format, enabling handy insertion of  
supporting material, and there is sufficient  
space on most pages on which to make addi- 
tional notes updating articles, or for provid- 
ing dimensions on drawings that are missing.  

It is a very welcome addition to the field  
glacologist's bookshelf and, because of rapid  
developments in ice drill technology, it is  
likely to be followed closely by others of  
it kind.  

G. Holdsworth