

大兴安岭地区 晚中生代成煤植物

何德长 著

煤炭工业出版社

大兴安岭地区晚中生代成煤植物

何德长 著

煤炭工业出版社

(京)新登字 042 号

图书在版编目 (CIP) 数据

大兴安岭地区晚中生代成煤植物/何德长著. —北京:
煤炭工业出版社, 1995

ISBN 7-5020-1134-X

I. 大… II. 何… III. 中生代-成矿带-植物化石-煤田
-大兴安岭地区 IV. P618.110.4
中国版本图书馆 CIP 数据核字 (95) 第 02375 号

大兴安岭地区晚中生代成煤植物

何德长 著

责任编辑: 马淑敏

*

煤炭工业出版社 出版

(北京安定门外和平里北街 21 号)

煤炭工业出版社印刷厂 印刷

新华书店北京发行所 发行

*

开本 787×1092mm¹/₁₆ 印张 5 插页 8

字数 110 千字 印数 1—1, 080

1995 年 3 月第 1 版 1995 年 3 月第 1 次印刷

书号 3902 定价 15.00 元



摘 要

本书阐述了内蒙古东部大兴安岭地区霍林河矿和伊敏矿晚中生代褐煤丝炭。描述了丝炭木材中 8 属的 12 个种, 它们是: *Phyllocladoxylon heizyoense* Shimakura, *P. eboracense* (Holden) Krausel, *P. densum* sp. n., *P. hailaerense* sp. n., *Protoglyptostroboxylon giganteum* gen. et sp. n., *P. yiminense* gen. et sp. n., *Taxoxylon pulchrum* sp. n., *Cedroxylon jinshaense* (Zheng et Zhang) emended, *Piceoxylon priscum* sp. n., *Protocedroxylon orientale* sp. n., *Xenoxylon peideense* Zheng et Zhang, *Podocarboxylon* sp.。其中有 1 个新属, 7 个新种, 改正 1 个旧种。顺便还把俄罗斯西西伯利亚中白垩世的 *Glyptostroboxylon senomanicum* Nastschokin 改归 *Protoglyptostroboxylon*。在照片的清晰度上, 丝炭木材与现代木材相比毫不逊色。*Phyllocladoxylon eboracense* (Holden) Krausel 和 *Xenoxylon peideense* Zheng et Zhang 可以反映霍林河组丝炭木材组合特征, 时代属晚侏罗世。*Piceoxylon* 和 *Protoglyptostroboxylon* 可以反映伊敏组丝炭木材组合特征, 时代属早白垩世。这两组及其相当地层的动、植物化石组合面貌基本一致, 双壳类化石工作者认为这两组俱属晚侏罗世; 植物化石工作者认为这两组俱属早白垩世。笔者取到了 *Protoglyptostroboxylon yiminense* gen. et sp. n. 具气腔的生态材料, 表明了该植物是典型的低位沼泽植物, 进一步证实了它与 *Glyptostrobus* 的亲缘关系, 为研究低位沼泽环境提供了线索。笔者还系统地拍摄了射线细胞径向壁具有或无纹孔的照片(现代木材尚未拍摄), 证实了厄尔得(1919)所说的情况和 Greguss (1955) 描画的投影图。本书并阐述了所研究的两层煤中丝炭的形成环境。系统研究、全面揭示了丝炭对褐煤的成煤植物, 古木材学和地层学所具有的重要研究价值。

前 言

1986年，笔者与钱丽君，张秀仪和吴景筠同志一起，研究河南义马和鄂尔多斯盆地中侏罗世烟煤的成煤植物，认识到一般丝炭保存了完好的木材显微结构，可以获得鉴定木材的径向面和弦向面，这两个面是鉴定木材主要的材料。煤中有大量的丝炭，如果把它开发出来，将是研究成煤植物和确定地层时代的好材料。因为一般丝炭缺少横断面的材料，所以仅凭一般丝炭是不能鉴定的。通过对大量丝炭的研究，笔者终于认识到研究丝炭的成煤植物，关键在于提供一般丝炭的对比资料。在烟煤中具宏观木材结构的丝炭标本太少，仅描述了少数几个种，并没有为一般丝炭提供多少对比资料。于是笔者决定研究晚中生代褐煤中的丝炭，以便提供部分中侏罗世烟煤丝炭的对比资料。研究褐煤中的丝炭要比研究烟煤中的丝炭容易得多，获得好的成果是预料到的。我国东北和内蒙古东部地区是唯一的晚中生代聚煤区，那里蕴藏有丰富的褐煤和烟煤，大兴安岭区的褐煤符合研究的目的，为此选定了内蒙古东部哲里木盟扎鲁特旗（大兴安岭东坡）霍林河矿霍林河组的14煤层和呼伦贝尔盟鄂温克旗（大兴安岭西坡）伊敏矿伊敏组的16煤层为研究对象。1990年，笔者申请煤炭科学基金，并获得了基金委员会的资助，得以研究大兴安岭地区晚中生代成煤植物。

笔者研究了近100块褐煤的丝炭标本，这表明在褐煤中确实存在不少可供研究的极好材料；通过多年对丝炭的研究，终于全面系统地揭示出烟煤和褐煤的丝炭，对成煤植物，古木材学和地层学的研究具有重要的价值。

笔者在南京古生物研究所查找资料和鉴定期间，得到周志炎的热情指导，为笔者指出了许多真知灼见，在此表示诚挚的感谢。

Abstract

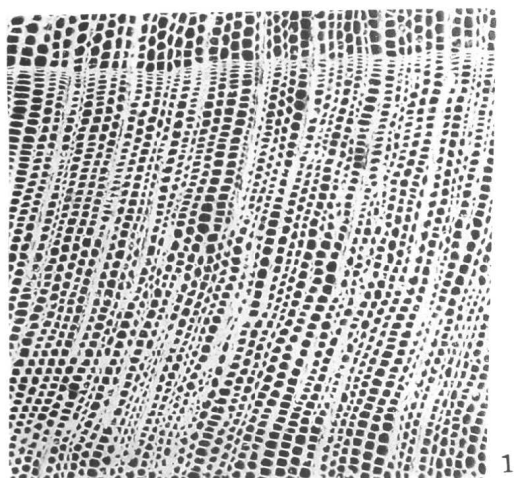
The Late Mesozoic fusain woods of lignite have been treated from Huolinhe and Yimin coal mines located in Da Hinggan Mountains of east Inner Mongolia. The genera and species have been described, as *Phyllocladoxylon heizyoense* Shimakura, *P. eboracense* (Holden) Krausel, *P. densum* sp. n., *P. hailaerense* sp. n., *Protoglyptostroboxylon giganteum* gen. et sp. n., *P. yiminense* gen. et sp. n., *Taxoxylon pulchrum* sp. n., *Cedroxylon jinshaense* (Zheng et Zhang) emended, *Piceoxylon priscum* sp. n., *Protocedroxylon orientale* sp. n., *Xenoxylon peideense* Zheng et Zhang, *Podocarpoxylon* sp.. There are 12 species referred to 8 genera, including 7 new species, one new genus, one emended species. Conveniently, *Glyptostroboxylon senomanicum* Nastschokin from the Middle Cretaceous strata in West Siberia has been ascribed to *Protoglyptostroboxylon* gen. n.. The fusain wood is without losing the colour in picture compared with the living wood. The Huolinhe Formation is characterized by *Phyllocladoxylon eboracense* (Holden) Krausel and *Xenoxylon peideense* Zheng et Zhang, and belongs to Late Jurassic epoch. The Yimin Formation makes features of *Piceoxylon* and *Protoglyptostroboxylon*, its age is Early Cretaceous epoch. The assemblage of fossil animals and plants in Huolinhe Formation as well as the equivalent strata is basically agreeing with that one in Yimin Formation and the equivalent strata, therefore the professionals of pelecypoda regard the above two formations as Late Jurassic epoch and ones of plants regard both as Early Cretaceous epoch. An examination of fusain woods shows obvious boundary between the Jurassic system and the Cretaceous system. In view of fusain the problem of strata debated for long time disappears. *Protoglyptostroboxylon yiminense* gen. et sp. n. gives a clue to investigation of low swampy land because it possesses a large quantity of air cavities and the very obvious intercellular spaces, which reveal it a typical plant of low swampy land. The photographs, which haven't been taken from the living woods, have been systematically taken from the radial walls of ray cells that are with the pits or without. The researches reveal fusain significant in the coal-forming plants of lignite, ancient wood anatomy and the stratigraphy.

Preface

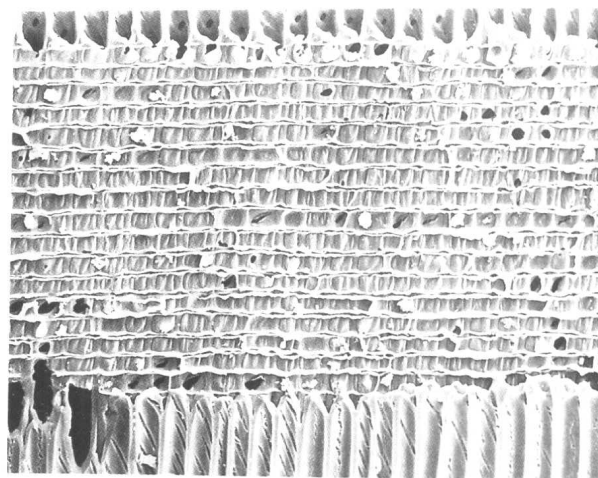
As writer (1986) dealt with the bituminous coal-forming plants of Middle Jurassic in Yima of Henan province and Ordos Basin with professors Qian Lijun, Zhang Xiuyi and Wu Jingjun, we noticed the fusain perfectly preserve microscopical structure of wood, from which the radial and tangential sections used in identified wood are able to be got. If a good deal of fusain in the coal is utilized, it will contribute a better understanding of coal-forming plants and geological age. Because the cross section of wood cannot be made out of the general fusain, only cannot the general fusain be identified. After a lot of fusain in the bituminous coal had been treated, the key of settlement of question has been noticed lie in the compared data of the identified general fusain. Though a few species were described in the bituminous coal, what have been provided for the comparison of usual fusain woods are too few, therefore, writer decided to make researches on coal-forming plants in the lignite of Late Mesozoic era in order to provide a part of compared data of bituminous coal of the Middle Jurassic epoch, in which the study of fusain is doubtless easier than in the bituminous coal. Northeast Region (including east Inner Mongolia) is only a coal-accumulating region in the Late Mesozoic era in China and has stored rich lignite and bituminous coal. The lignite in Da Hinggan Mountains corresponds to our object of study. Having investigated, writer decided to choose the 14th seam of Huolinhe Formation in Huolinhe Mine, Jarud Banner, Jirem League and the 16th seam of Yimin Formation in Yimin Mine, Ewenki Banner, Hulun Buir League, Da Hinggan Mountains as an object of research. 1990, writer requested the fund of coal mining research for a study of coal-forming plants of Late Mesozoic in Da Hinggan Mountains (east Inner Mongolia) and was hepled from Fund Committee of Coal Mining Research.

Research has dealt with less than 100 specimens of macrostructured fusain, so that they sufficiently show studying worth of lignite fusain in the coal-forming plants, the stratigraphy and the xylotomy.

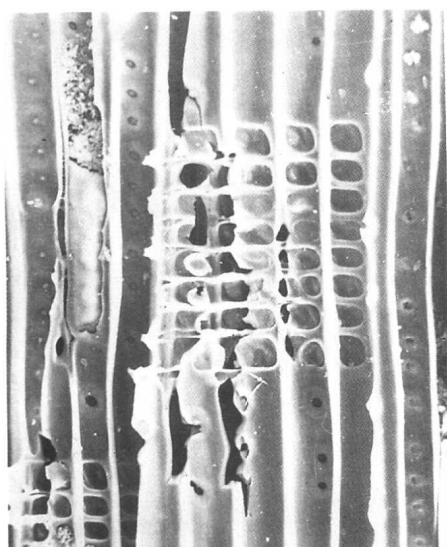
Searching after identified data in Nanjing Institute of Geology and Palaeontology, Academia Sinica, I have been helped by president Zhou Zhiyan to point out many important insights in identification, to whom I am most sincerely grateful.



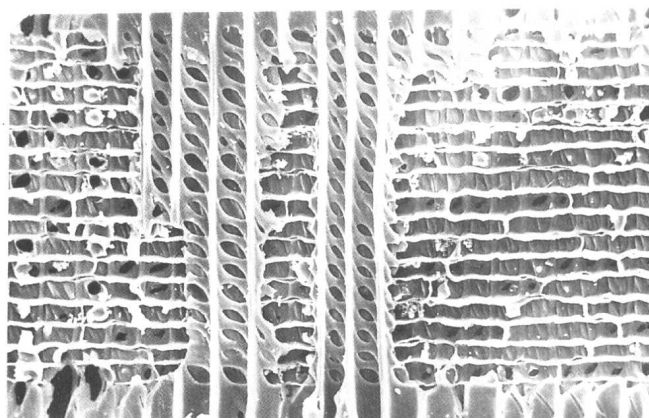
1



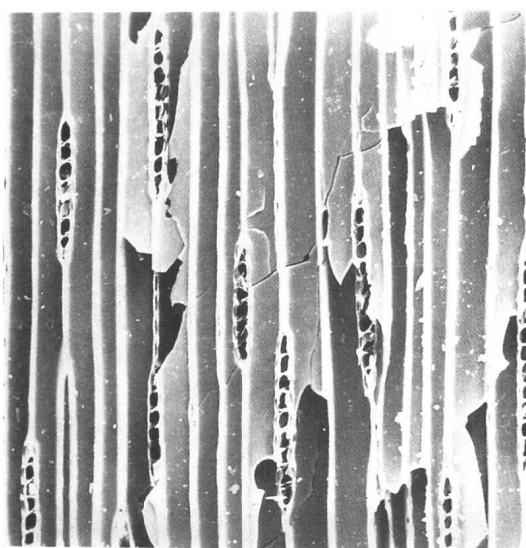
1a



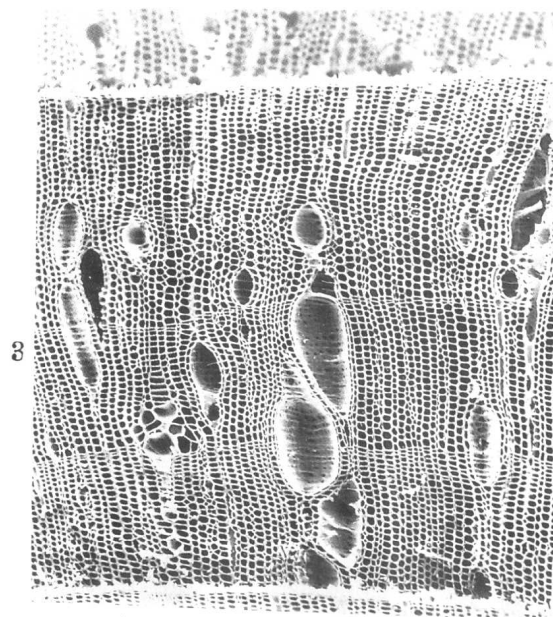
1b



2

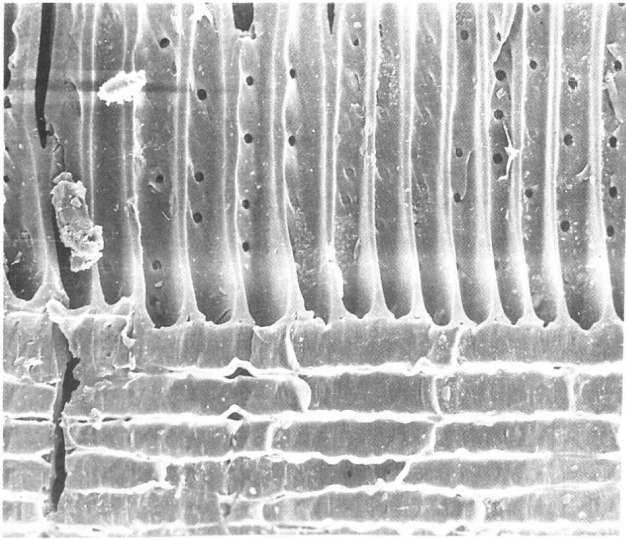


1c

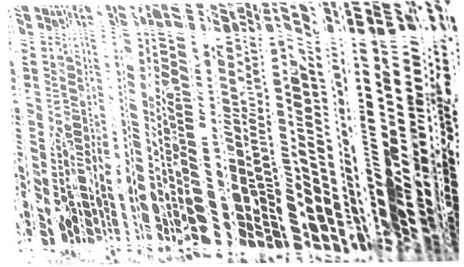


3

图版 II
Plate II



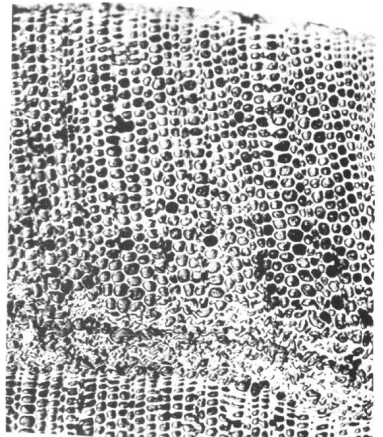
1



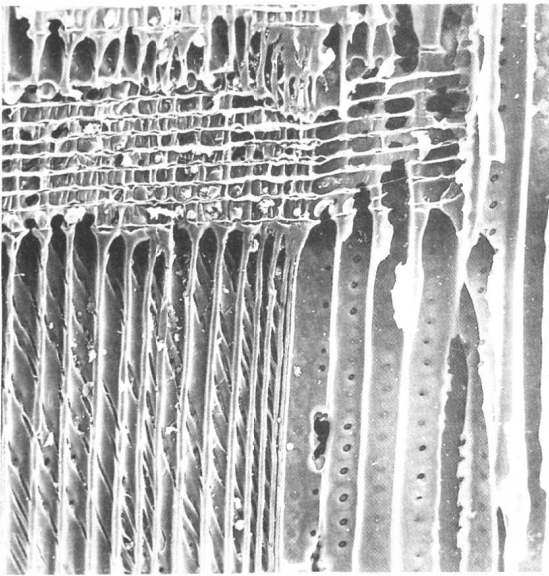
2



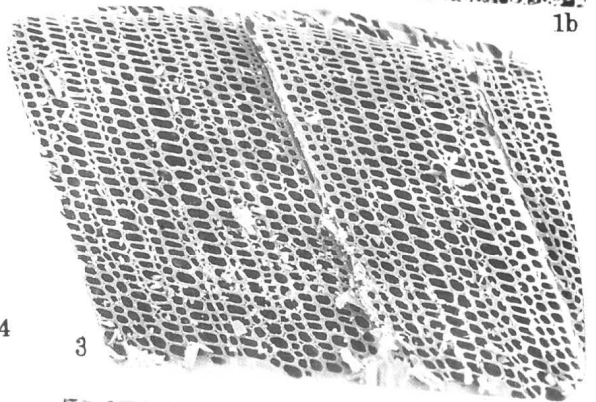
1a



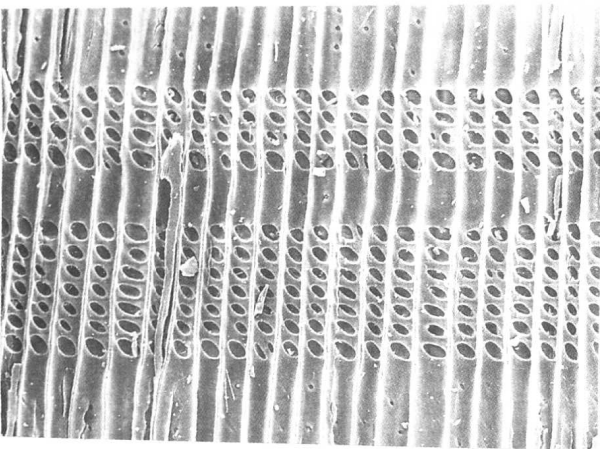
1b



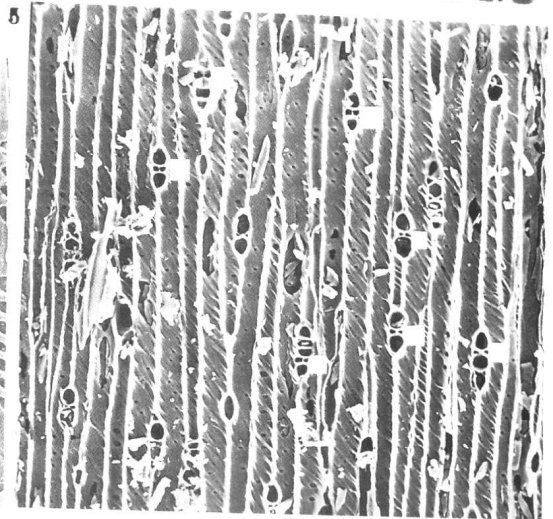
4



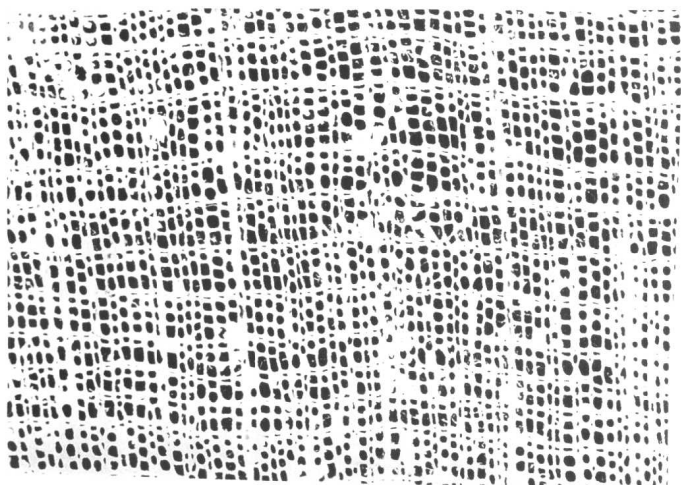
3



1c



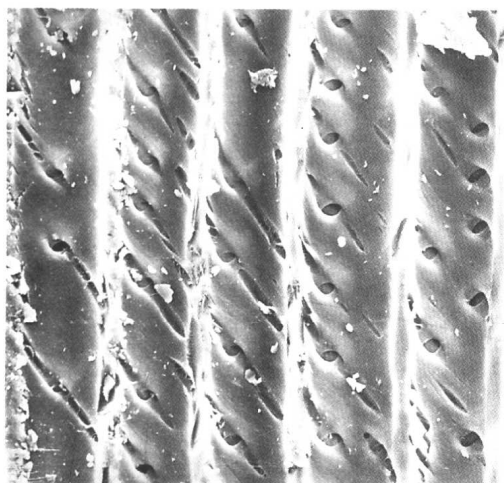
5



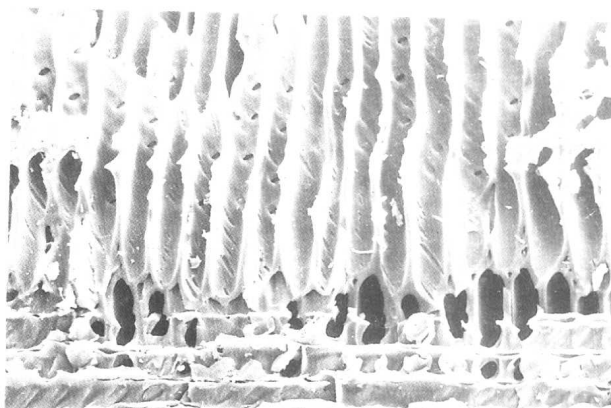
1



1a



2

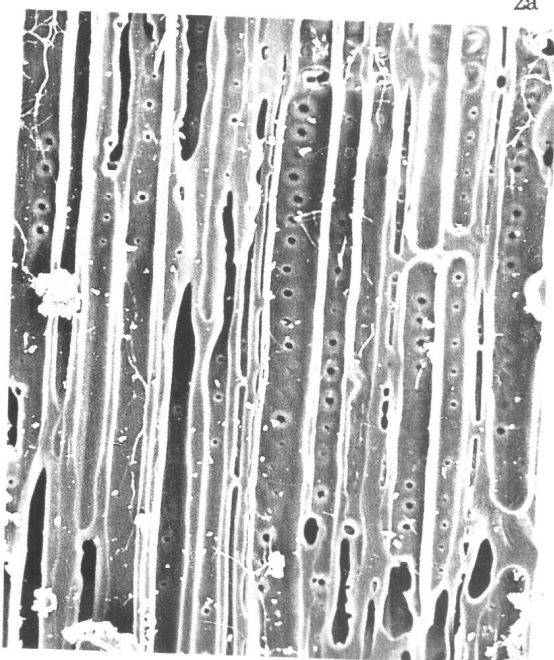


2a

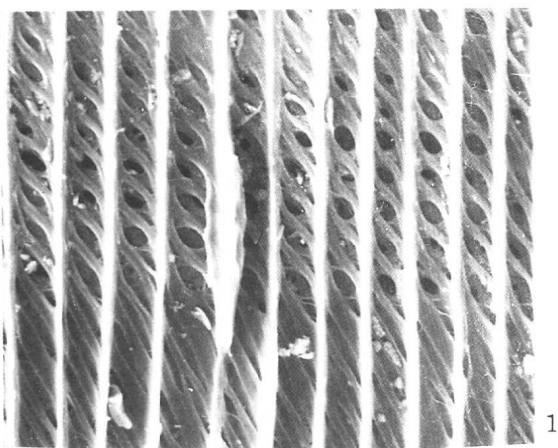
1b



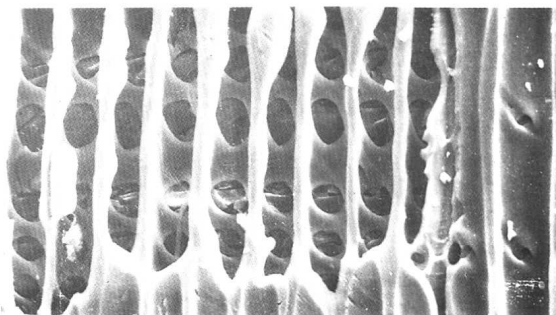
1c



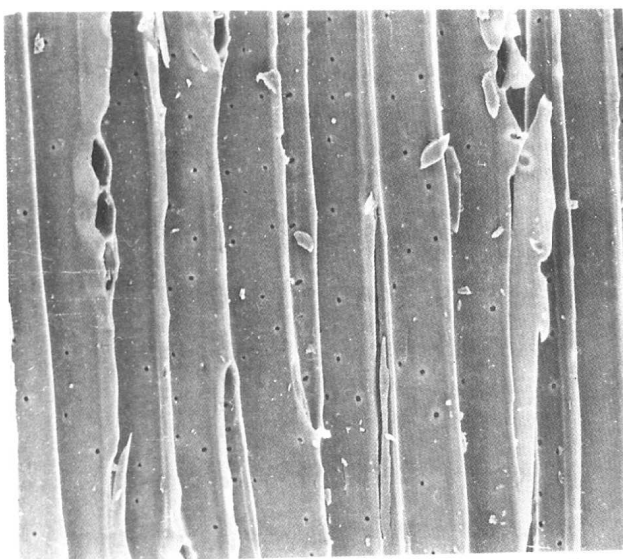
图版IV
Plate IV



1

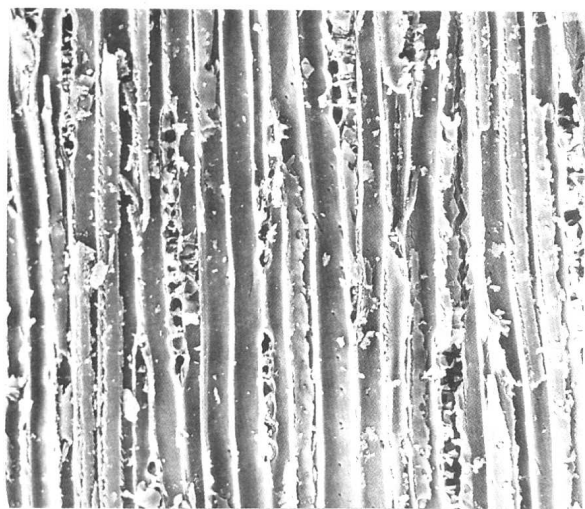


1a

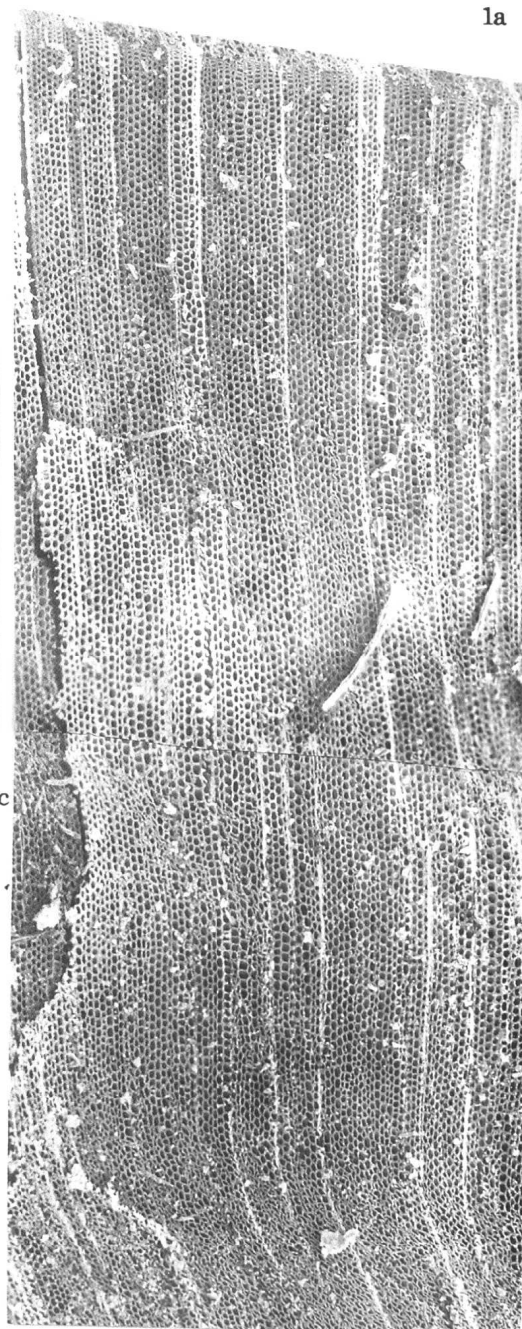


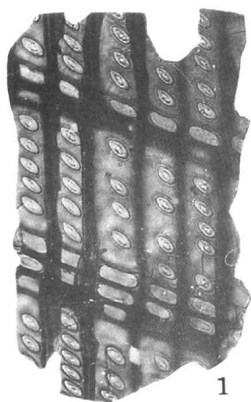
2

1c



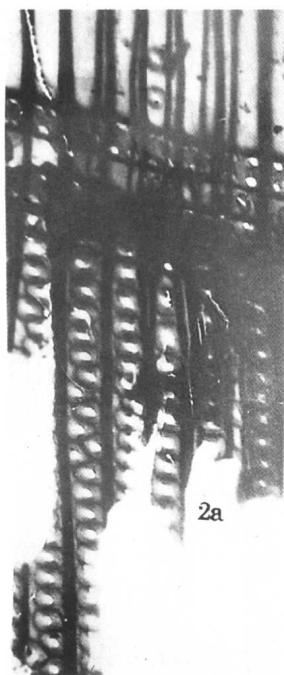
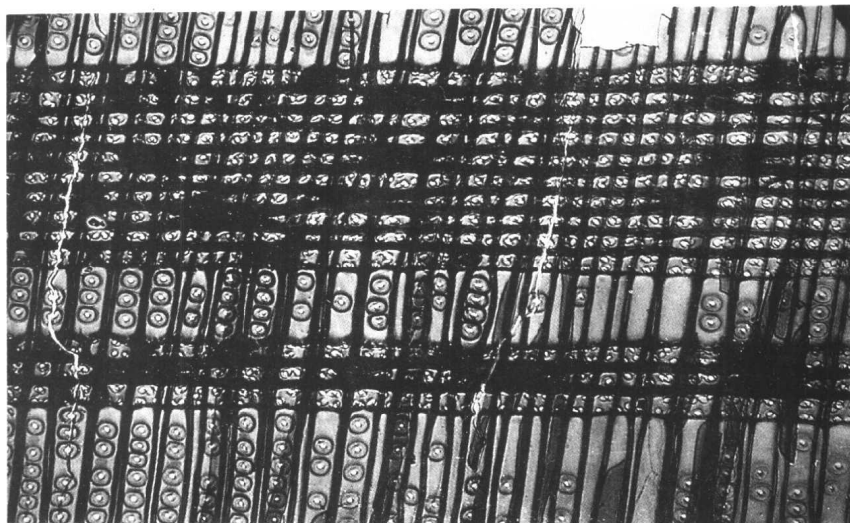
1b





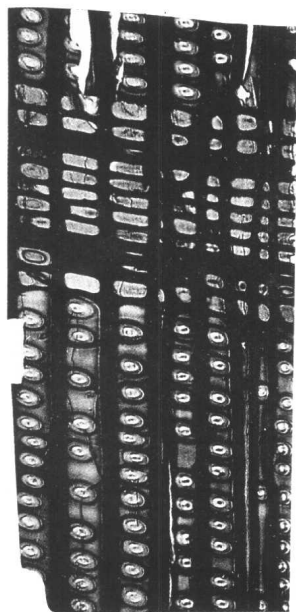
1

2



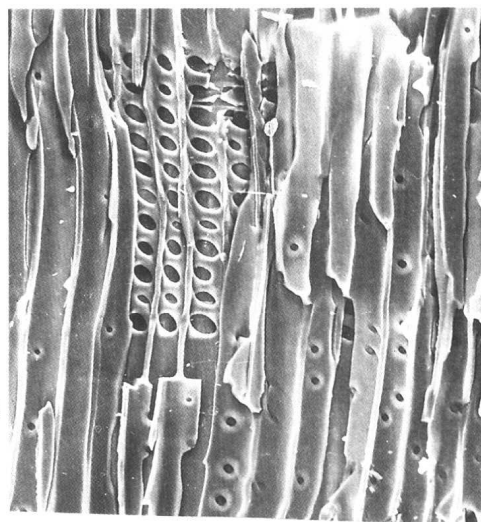
2a

2b

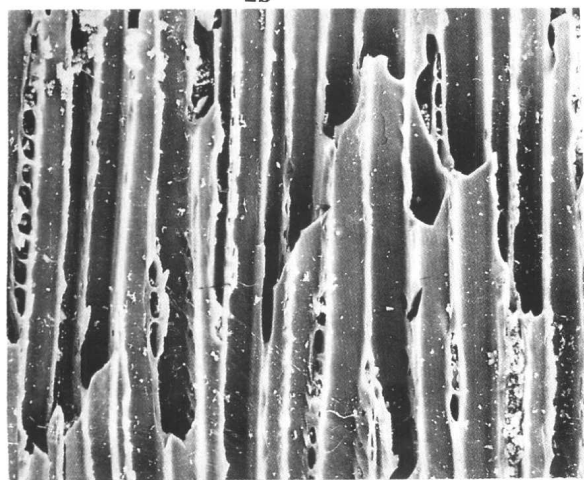


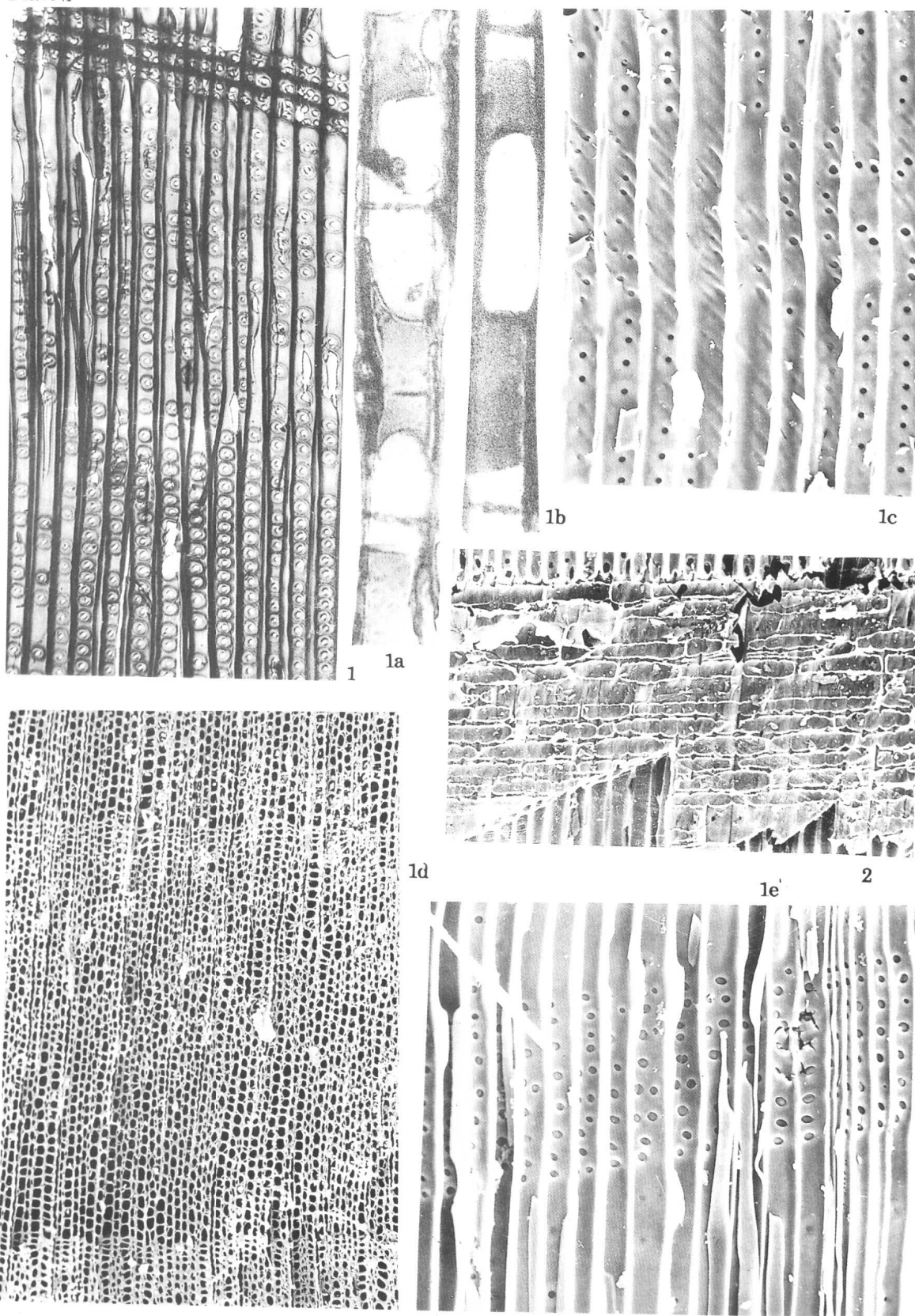
3

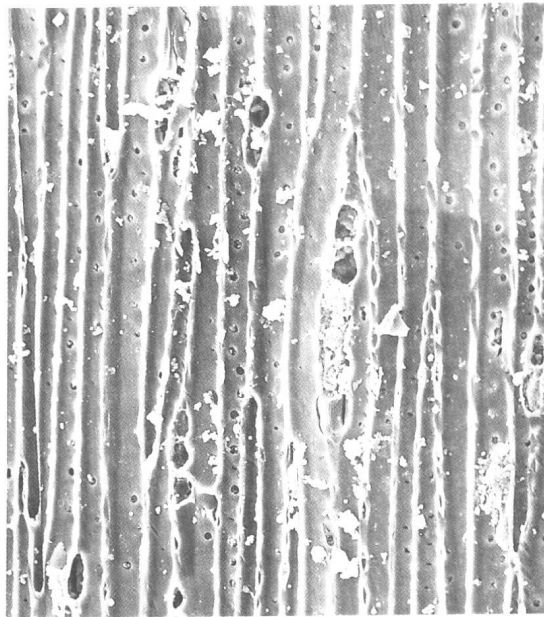
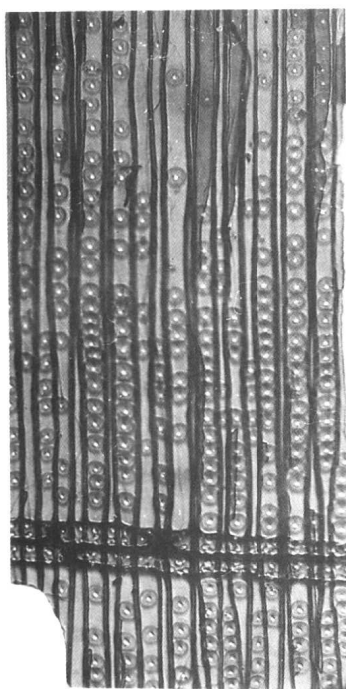
4



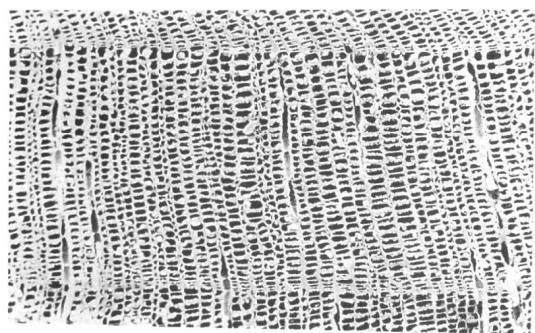
2c



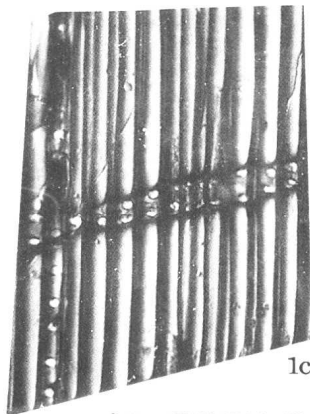




1
1a



1d 1e

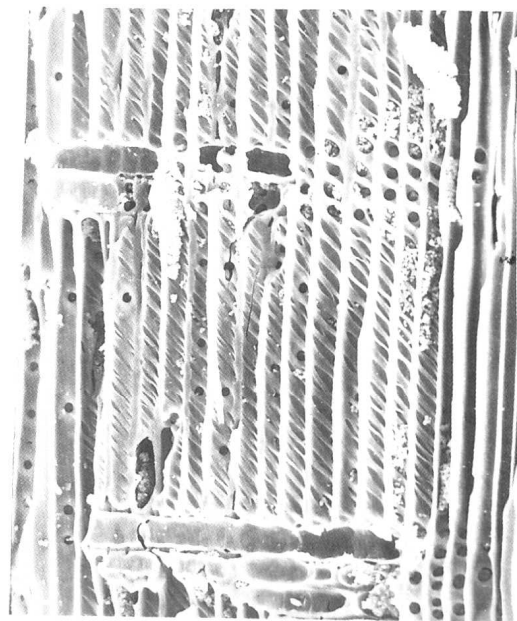
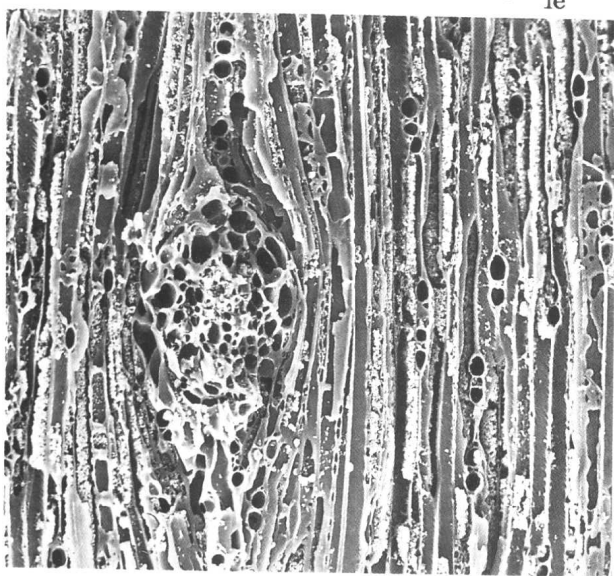


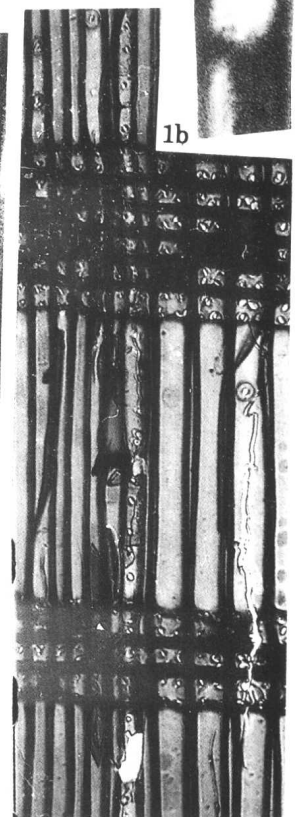
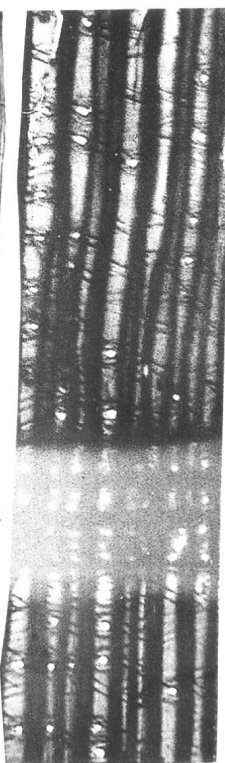
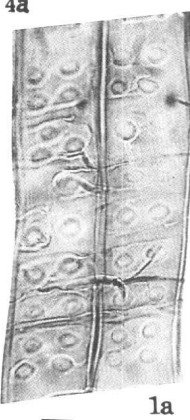
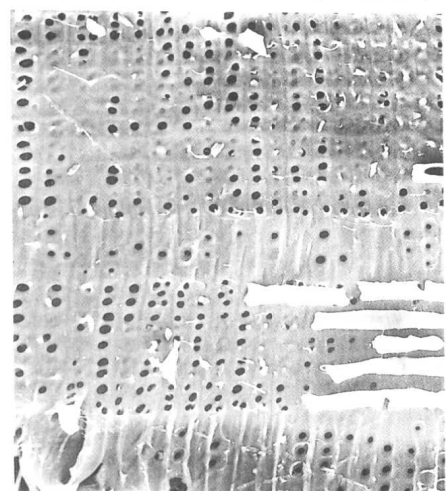
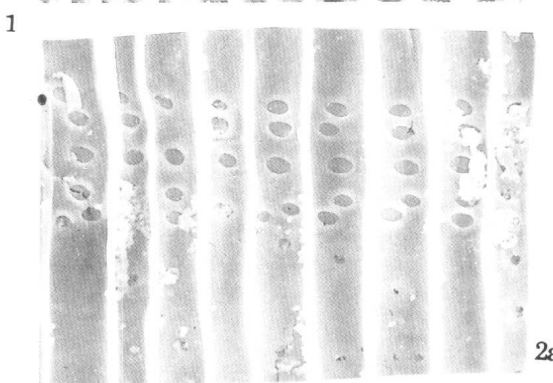
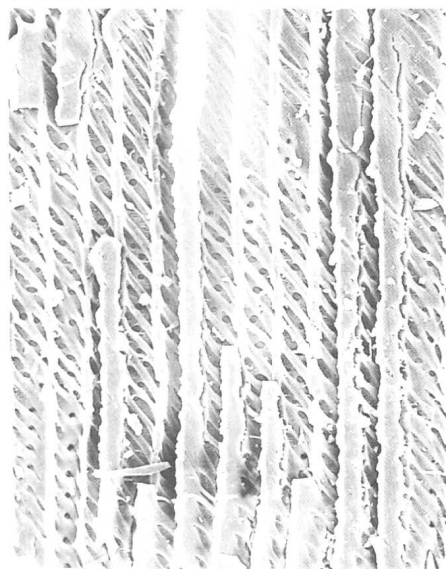
1c



1b

1f



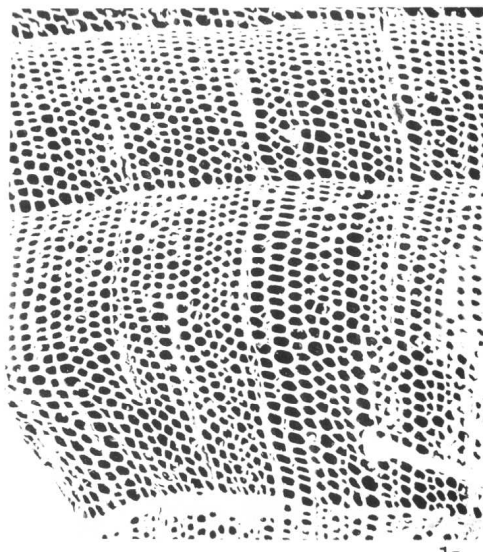
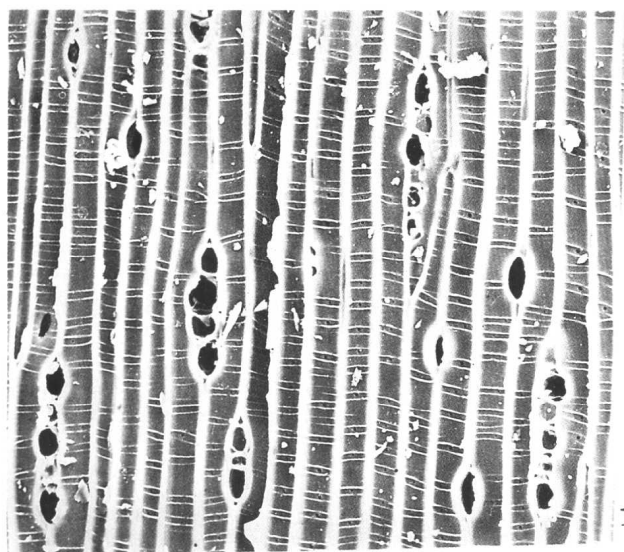


1c

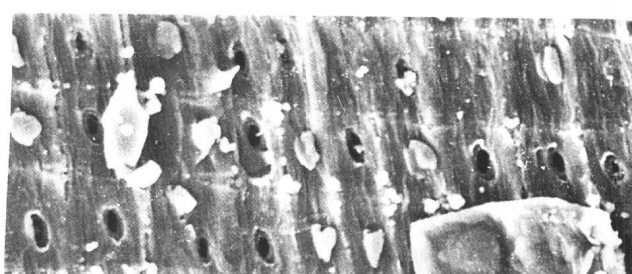
3a

1d

3



1a

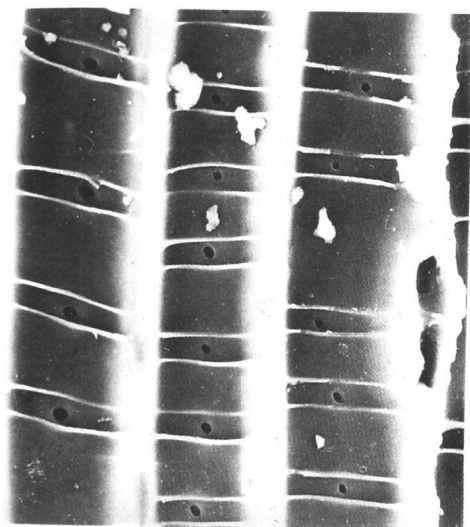


1b



1c

1d



1e



1f

