

Hoske forest acquired  
end of 70s.

Design team put together  
as movie of site 81-82  
master plan 1983

House (prototype) 1985-6

workshops 1988-89

ABK + Frei Otto resigned  
1991.

Cornwall - Happold continue

New masterplan (not used)

Westminster Lodge

Custodian resigned

New architects

another masterplan (not used)

AA acquired Hoske  
2002-3

1981-82

This book got the show on the  
road. In it are most of the ideas we used except  
~~the joints~~  
Frei Otto based all his standards on this  
basis of the economic use of materials.

note Re Abo 2006.

## HOOKE PARK

A FIRST COLLECTION OF IDEAS  
FOR THE USE OF WET TIMBER

BY ATELIER FREI OTTO

FOR MR. JOHN MAKEPIECE

AHRENDS, BURTON AND KURALCU, ARCH.

BÜRO HAPPOLD CNG.

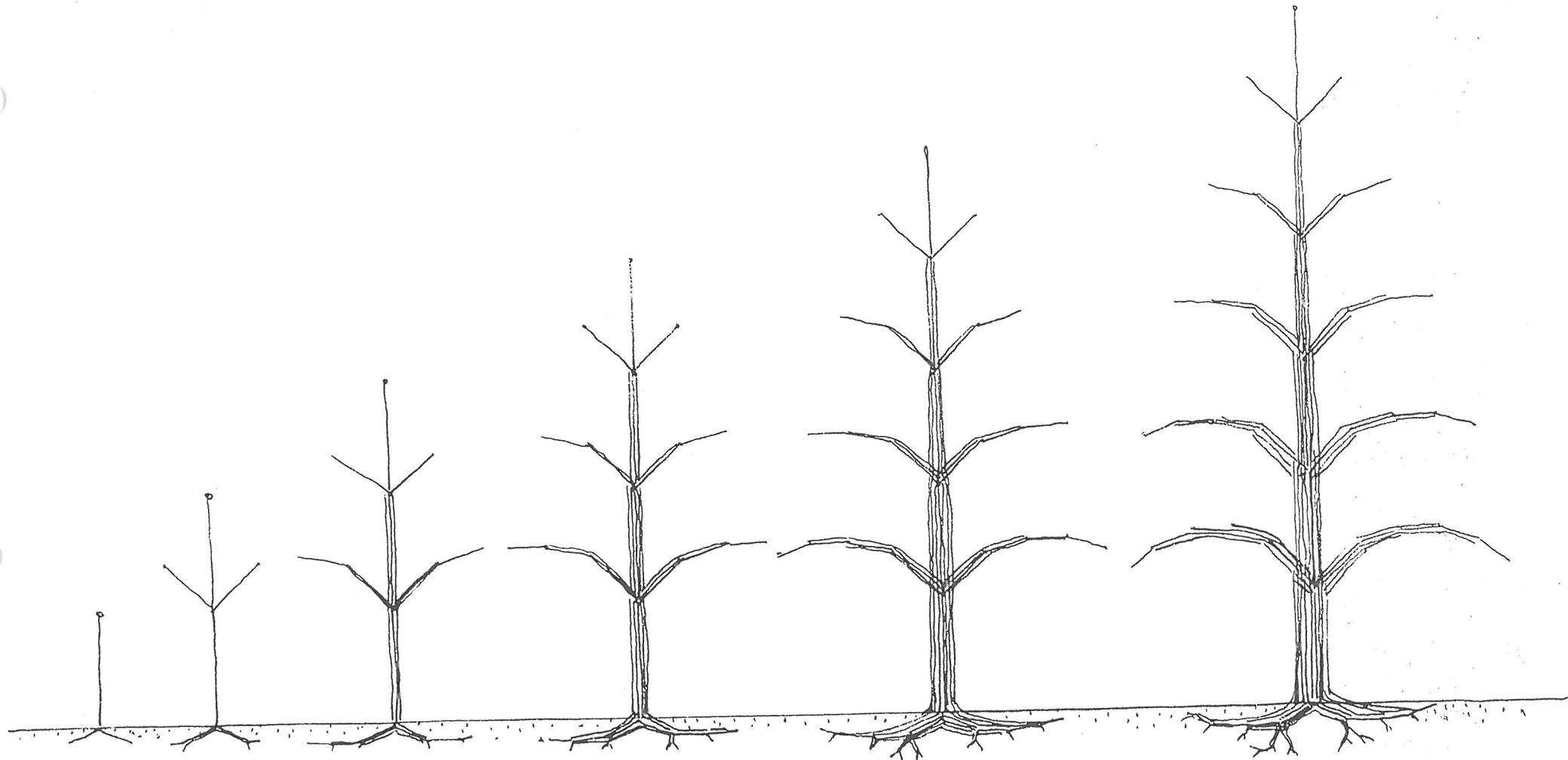
WARMBRUNN,

25.8.1982

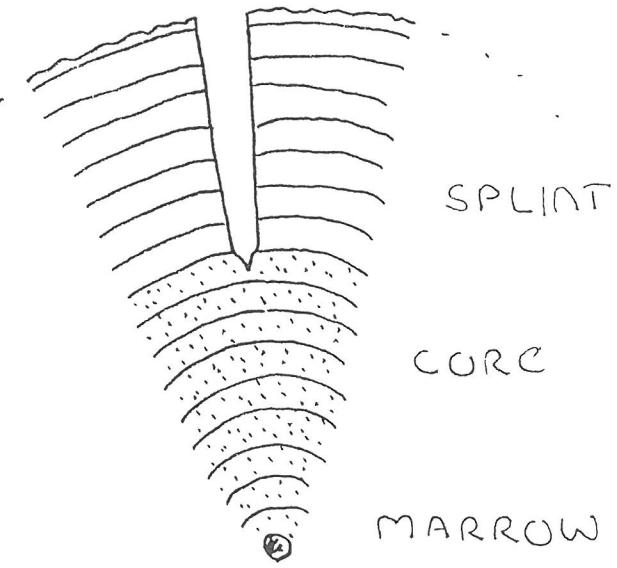
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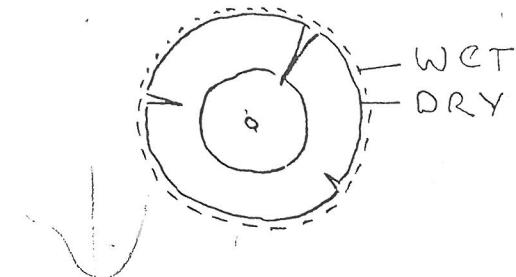
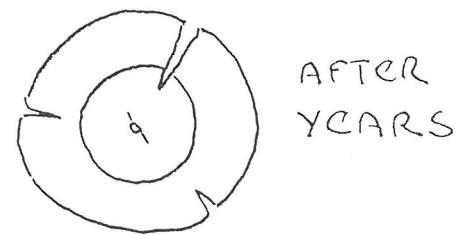
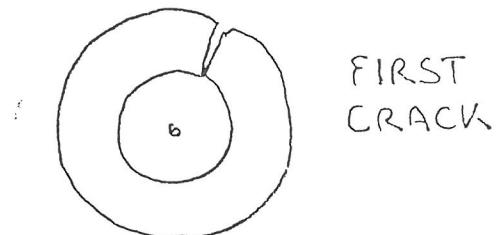
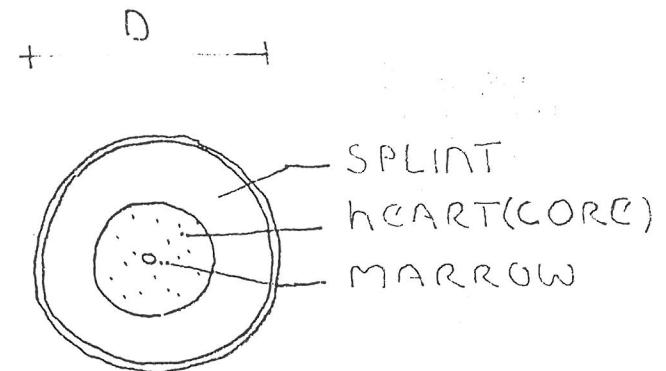
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# GROWTH AND SHRINKING OF WOOD



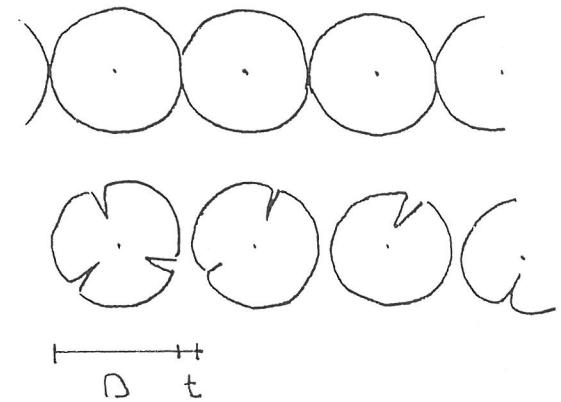
TYPICAL TEAR OF WET TIMBER





## SHRINKING OF WOOD ( $t$ )

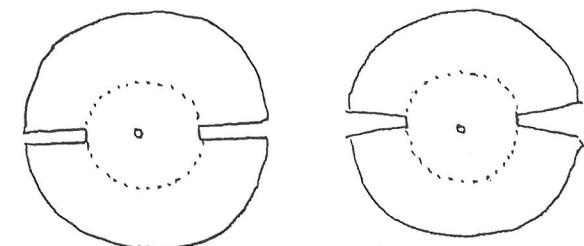
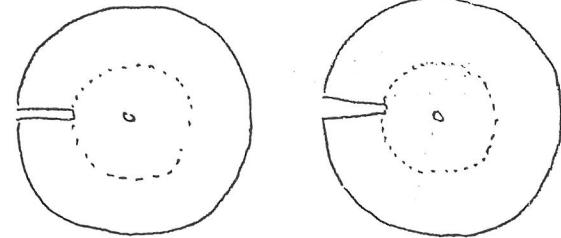
TOTAL THICKNESS  $D$   
BETWEEN 7 - 15 CM  
CONIFER WOOD



$$t \approx 1/15 \text{ to } 1/25 \text{ OF } D$$

OPENING OF JOINTS IN RELATION  
TO SHRINKING

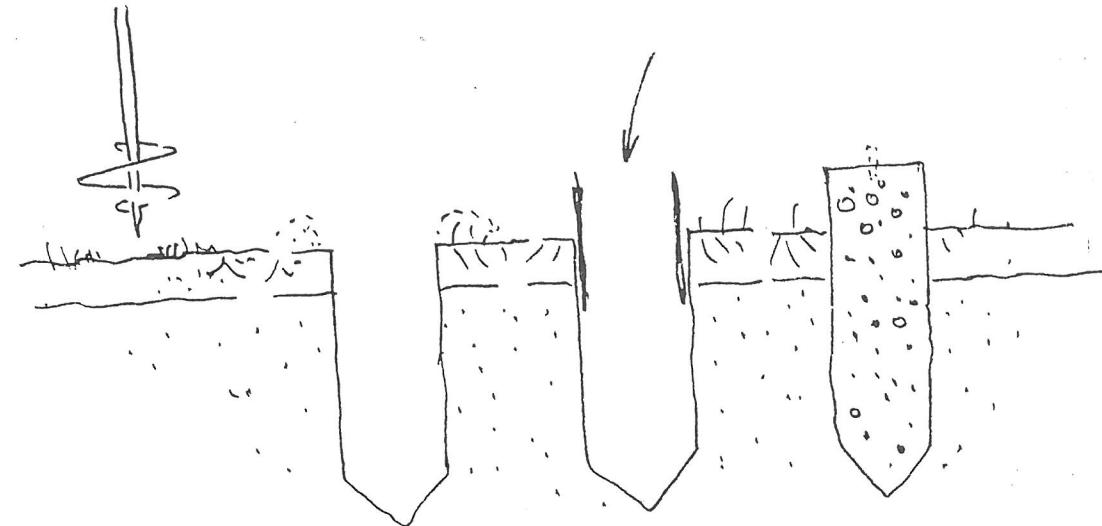
NUT THROUGH THE SPLINT  
WORKS LIKE AN EXPANSION JOINT -  
AVOIDS CRACKS



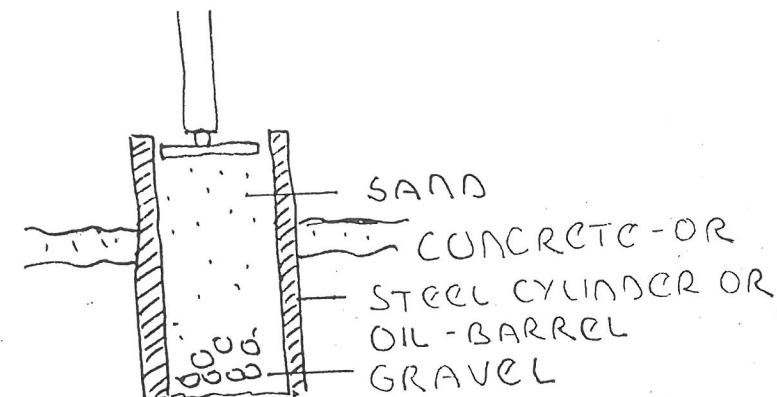
ATELIER FOUNDATION - 1250 LEGONVILLE MONTREAL CANADA

## FOUNDATIONS

## CONCRETE FOUNDATION FOR PILES OF TIMBER

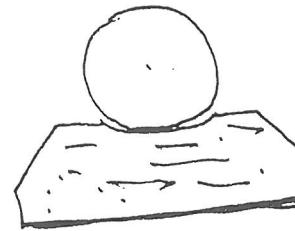


'SAND POT'  
ADJUSTABLE FOUNDATION  
FOR COLUMNS, TENTMASTS,  
CCT.

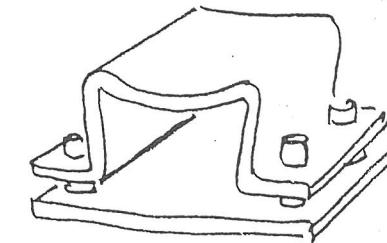
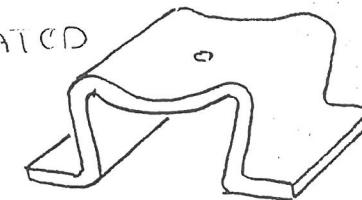


## FOUNDATIONS FOR HORIZONTAL BEAMS

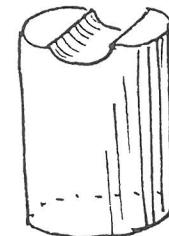
TIMBER  
OR STONE



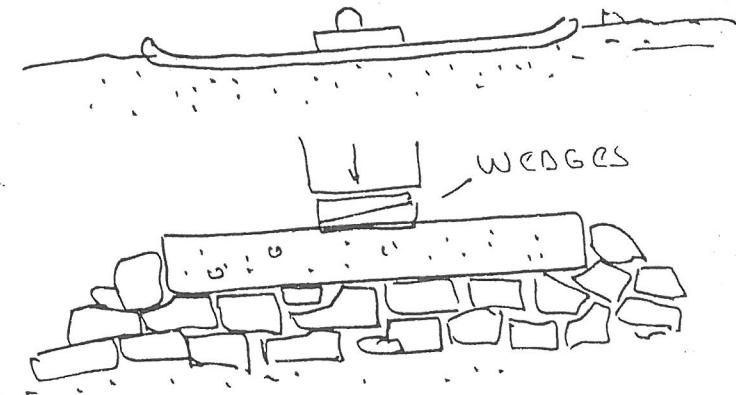
ZINC COATED  
STEEL



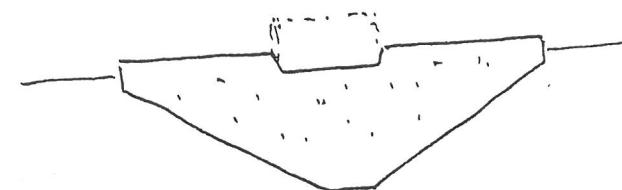
WOODEN  
TRUNK



STEEL PLATE WITH THORN  
FOR PILE

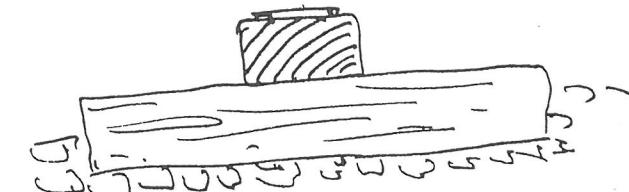


STONE SLABS ON GRAVEL  
FOR WALL

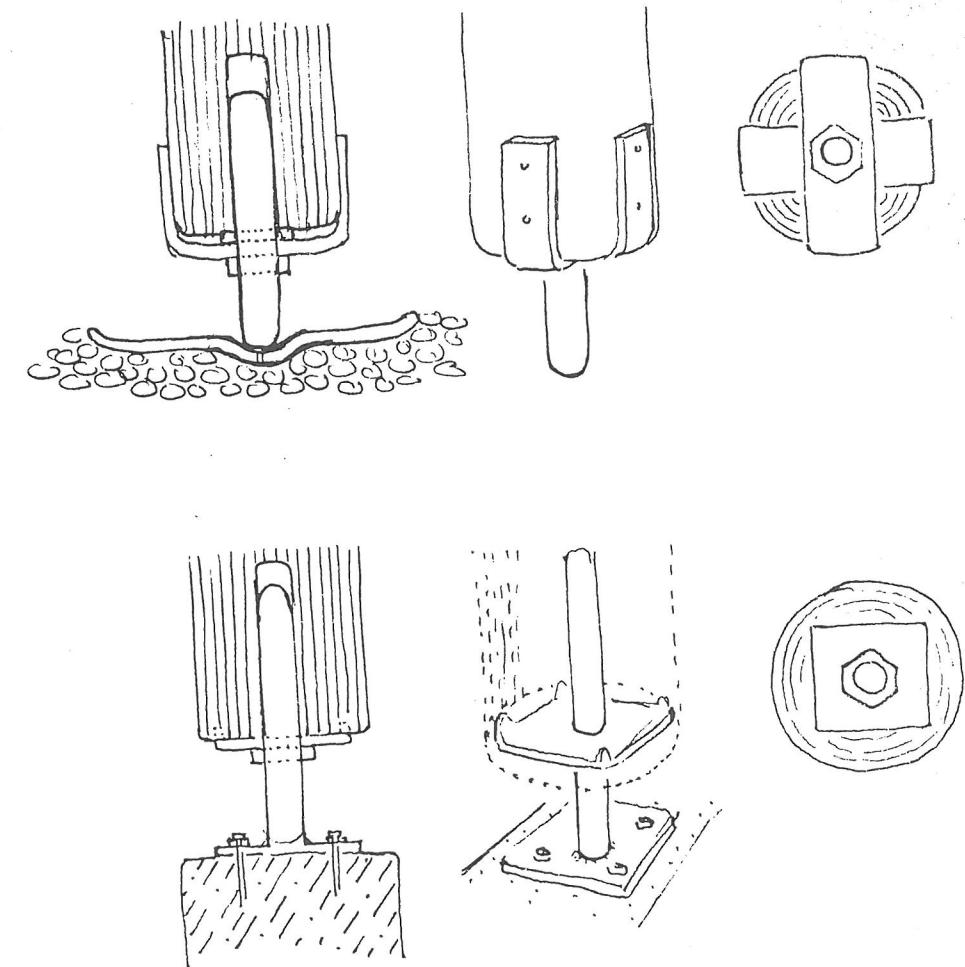


CONCRETE FOUNDATION STRIP  
FOR WALL

RAILWAY SLEEPERS ON GRAVEL



STEEL SHOES



# CONNECTORS

# NAILS AND BOLTS

TIMBER NAIL

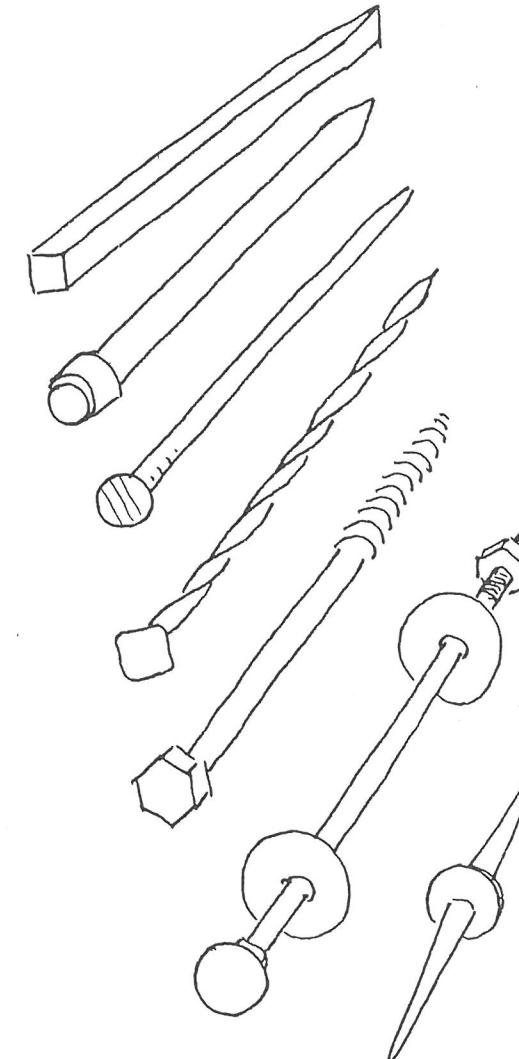
PLASTIC COATED  
STEEL NAIL

STEEL NAIL

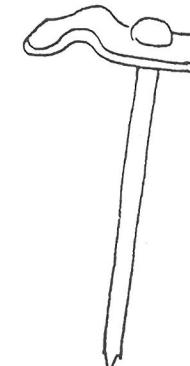
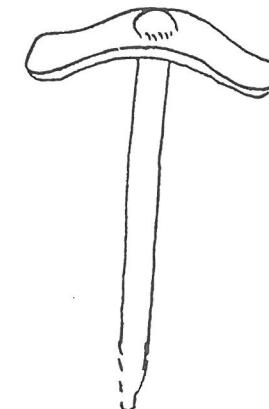
STEEL NAIL WITH  
WINDING

SCREW

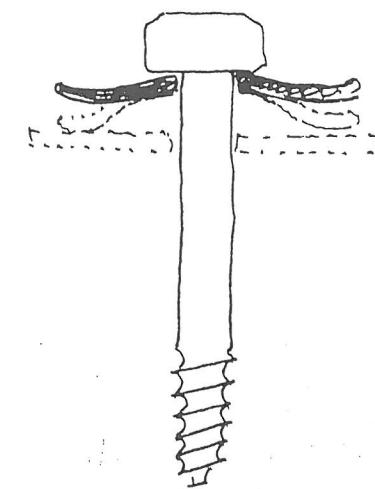
SCREW BOLT



RAIL WITH 'SPRINGHEAD'  
(TO ALLOW FOR SHRINKING)

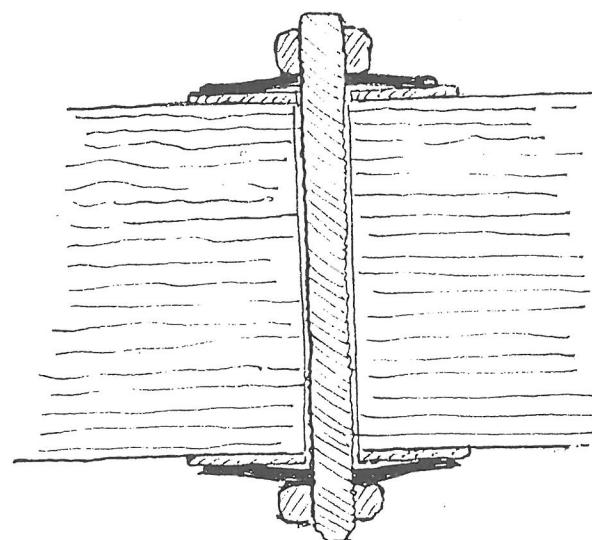


SCREW BOLT  
WITH SPRING WASHER

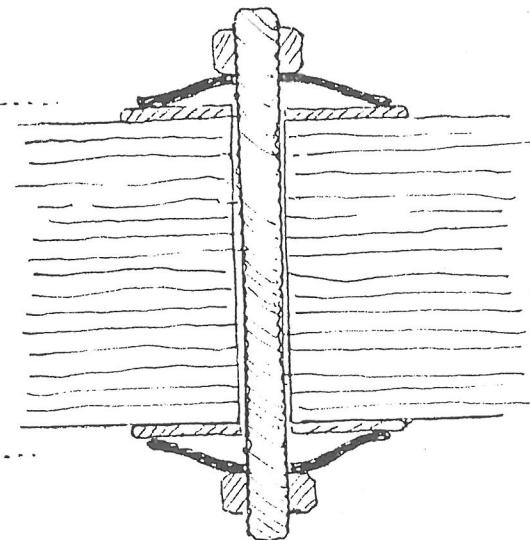


BOLTS WITH SPRING WASHERS  
DURING SHRINKING PROCESS

WET



DRY

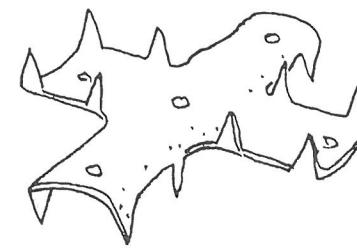
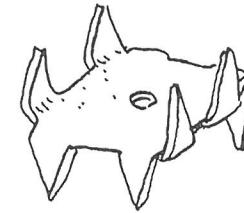
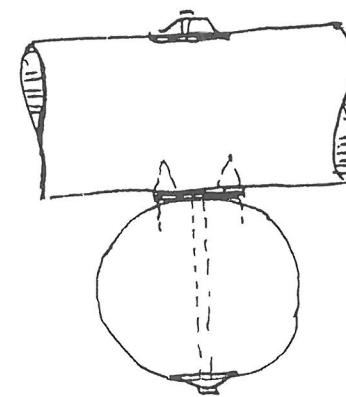


ATELIER FRÈRE OTTO - ARNIMSWOOD - 7250 LEONBERG 7

ATELIER FRÈRE OTTO

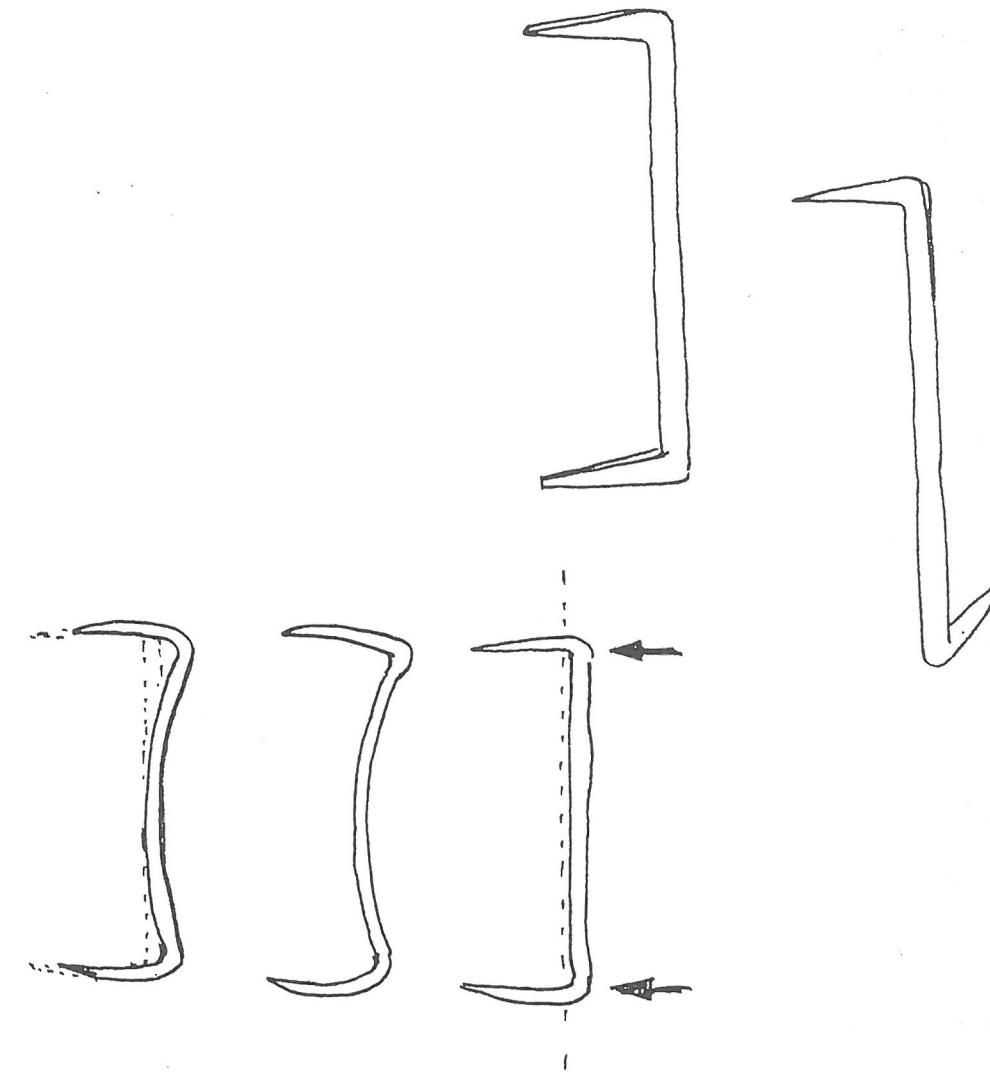
DATE 10 NOV 1984 - 07152 - 41084 (43000)

## NAILPLATES



ATELIER FREI OT WARMBRÖNN - 725 LEONBERG 7 BERG 07152 - 41034 1993-05-19

## STEEL CLAMP



## STRING CONNECTORS

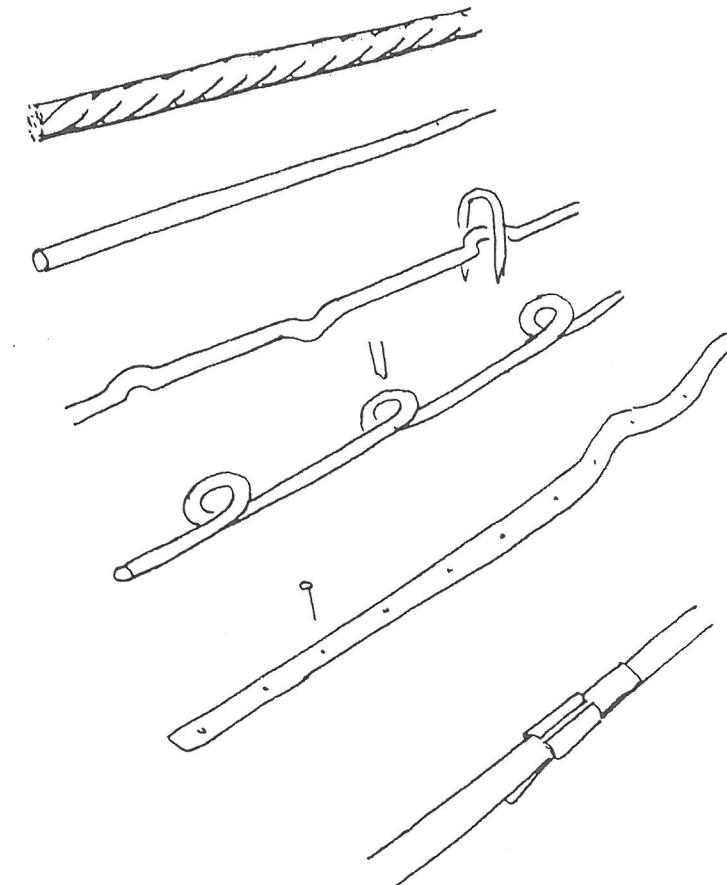
ROPES (HIGH ELASTICITY, NYLON  
PERLON, OR SELF SHRINK-  
ING HANF)

WIRES OR THREADS

SPRING WIRES

FLAT SPRINGS

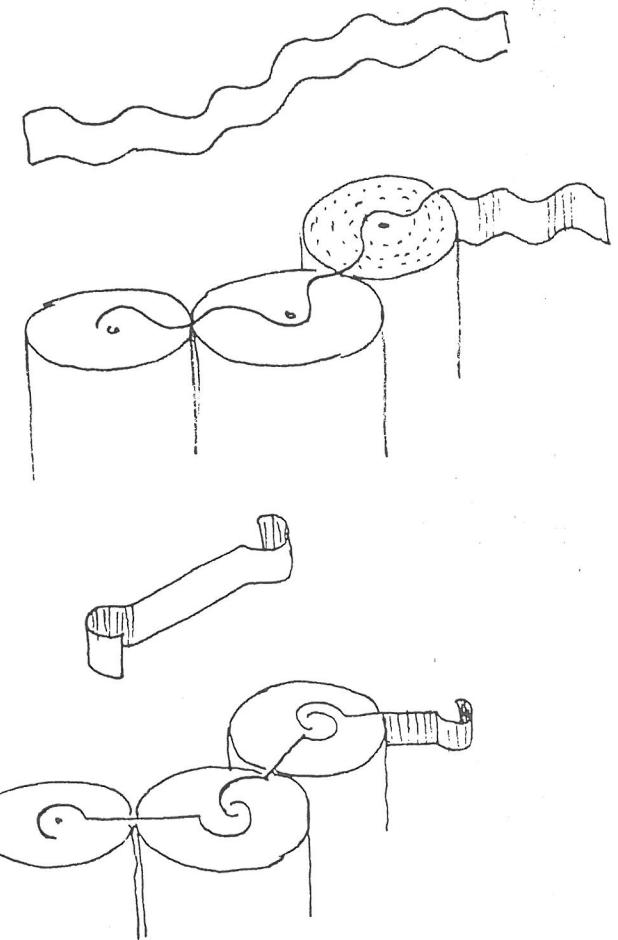
METAL BAND



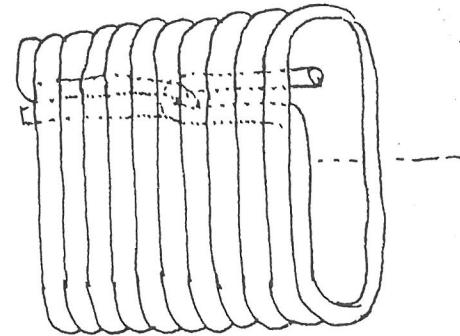
ATELIER FREI OT VERRIMBON - 7250 LIEGEBOURG 7 BER

VILLE 19

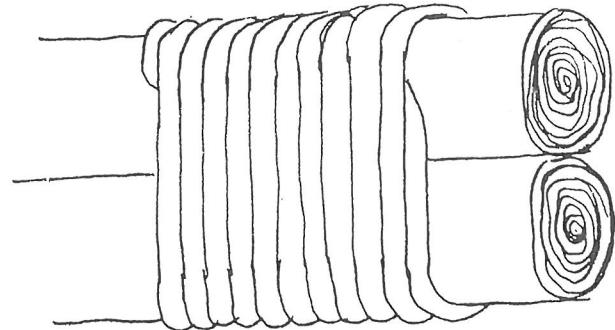
## METAL STRIP



STRING CONNECTIONS

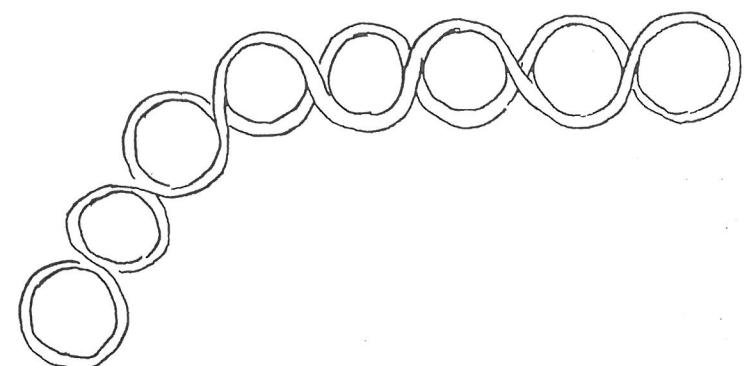
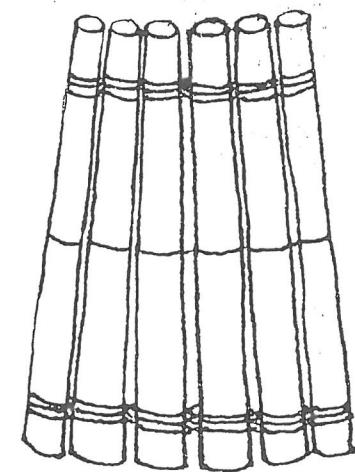
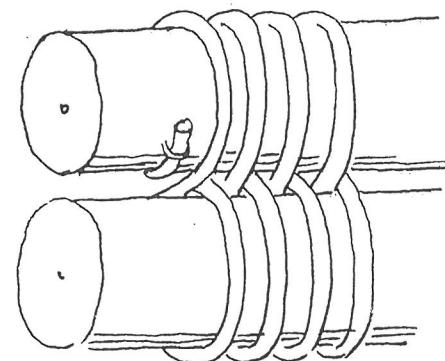


FOR 2 PARALLEL BEAMS

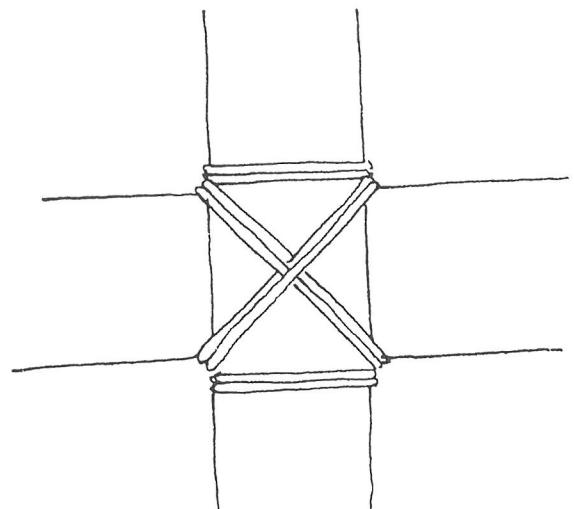
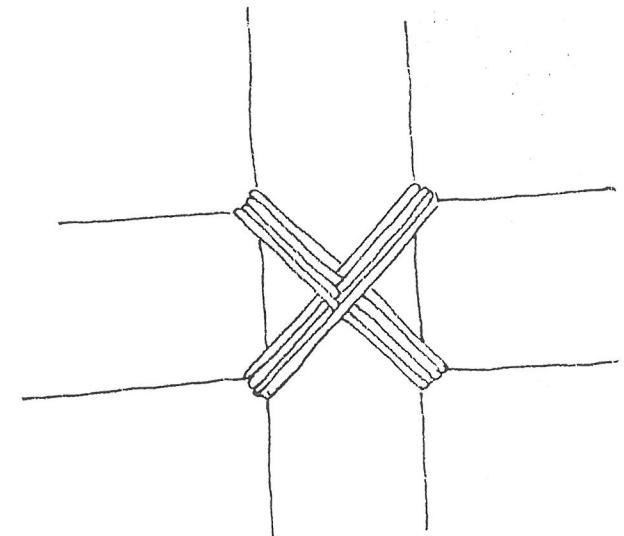
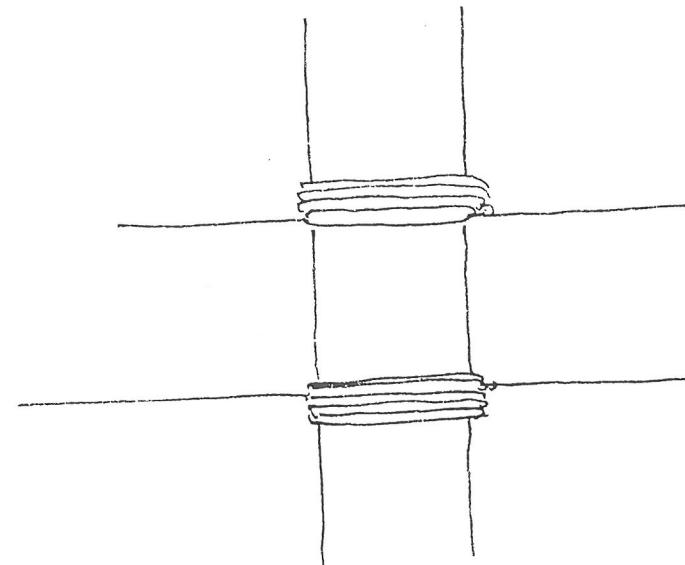


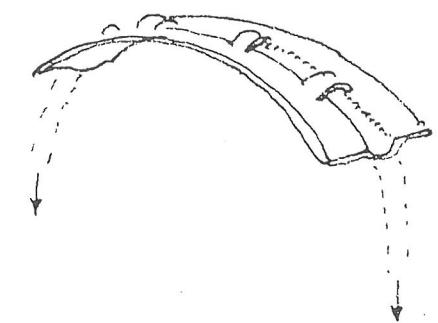
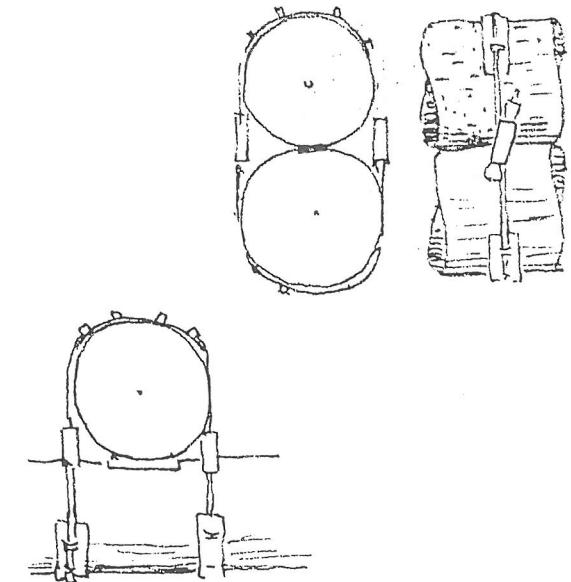
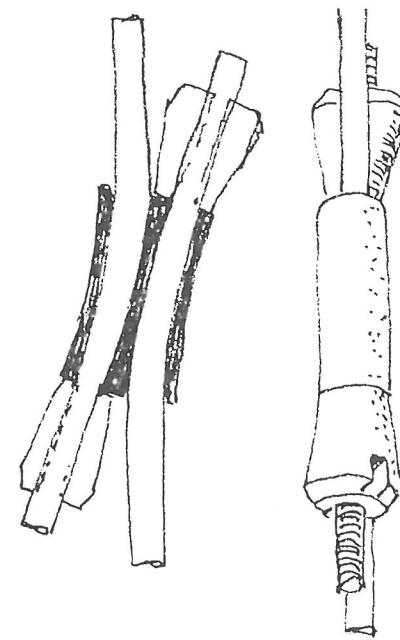
STRING CONNECTIONS

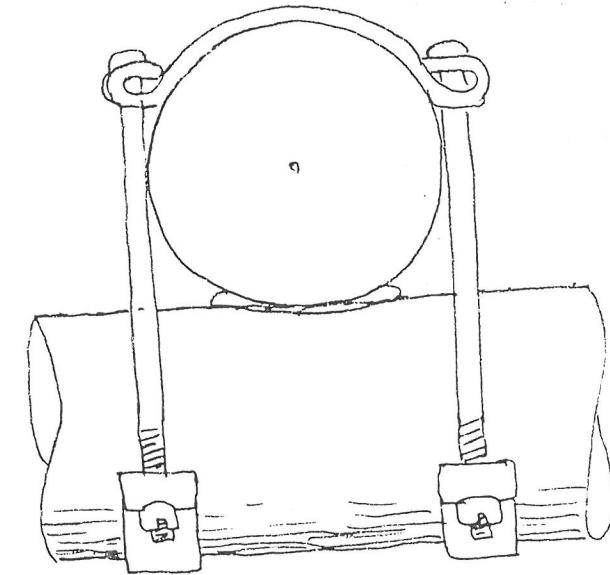
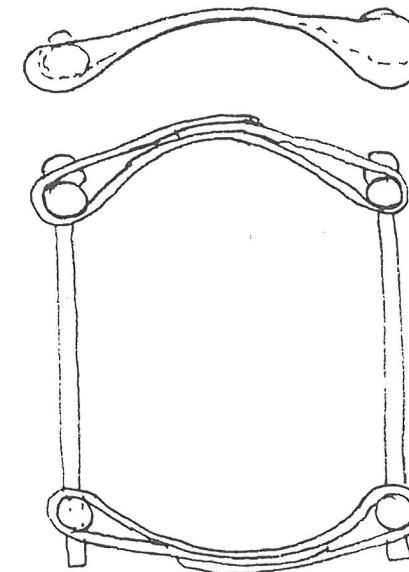
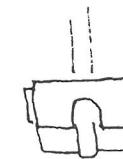
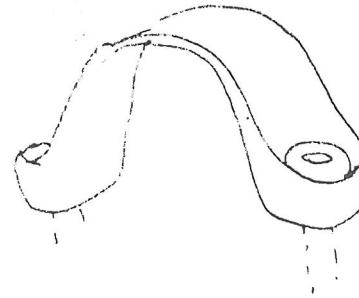
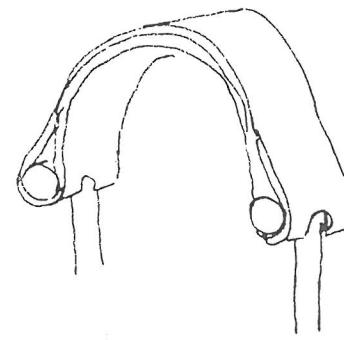
FOR SEVERAL PARALLEL  
BEAMS



STRING  
CROSS -  
CONNECTIONS





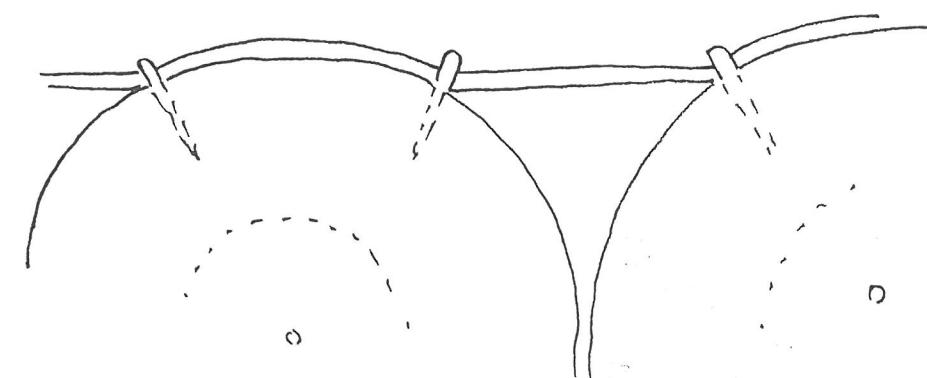
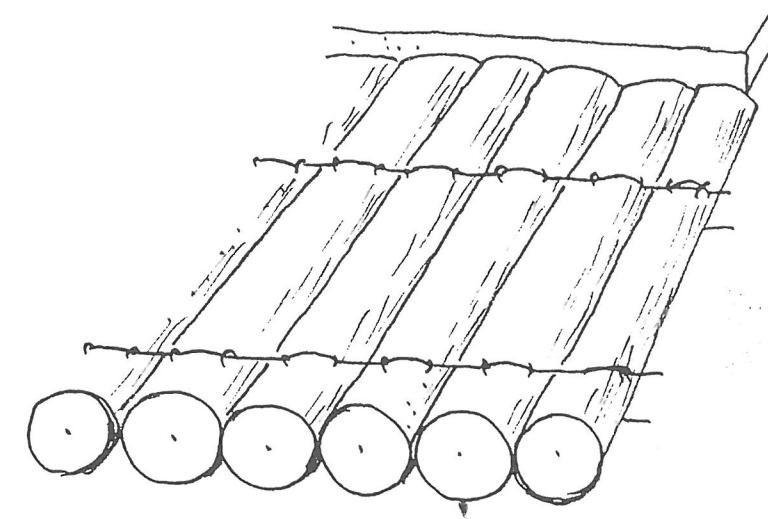


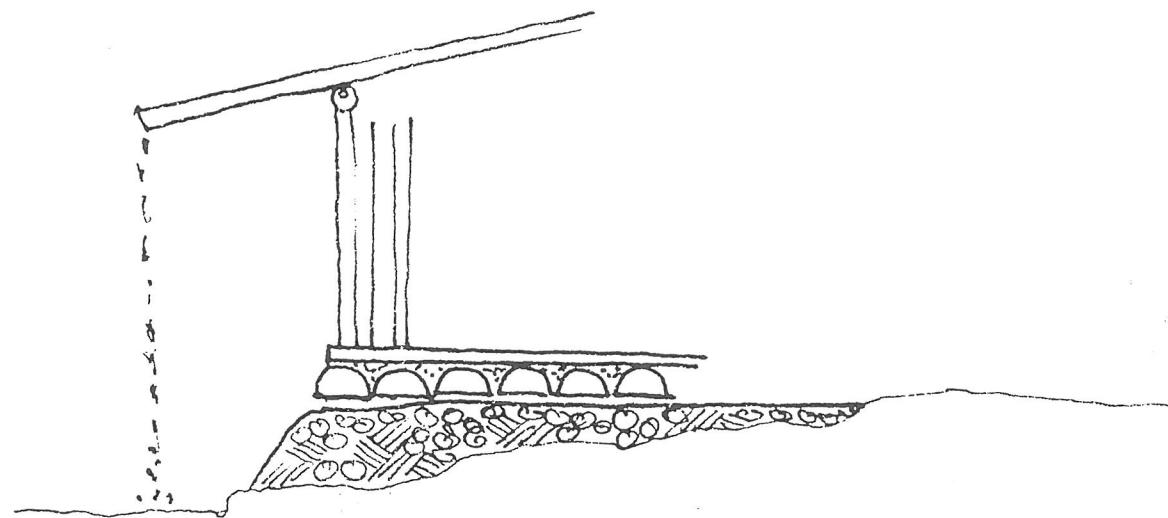
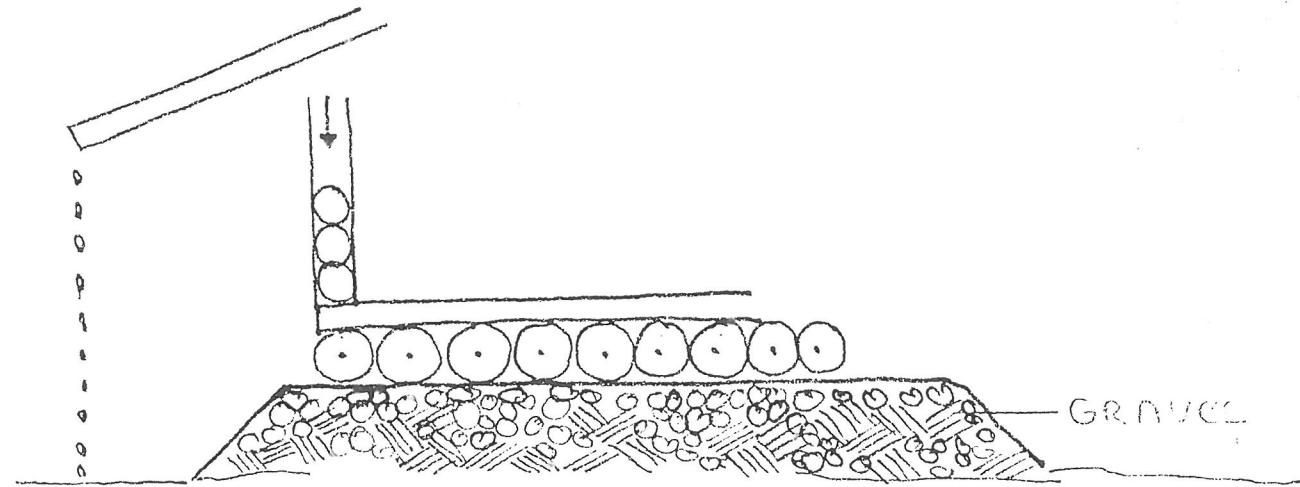
FLOURS

ATELIER FREI OTTO MARSHALL - 7250 LEONBERG 7 BERG VOLCE 19 07152 - 41084 (4344)

ATELIER FRÉDÉRIC JARMIRON - 7250 LIEGE/BELGIQUE - DEC 1997 - 0752 - 0084 (4545)

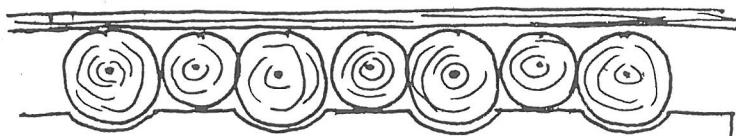
TECHNIQUE





PLYWOOD

LOGS



STOAC

SOIL

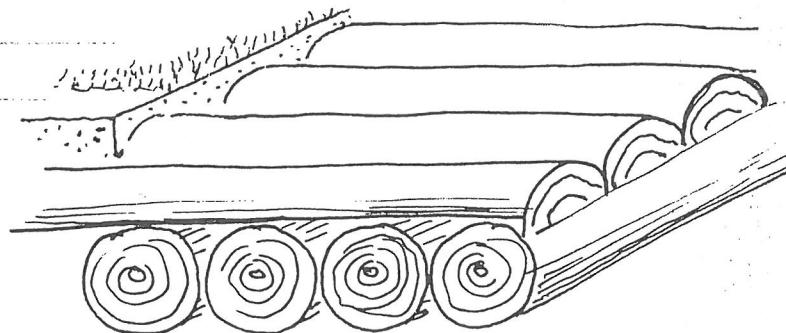


CARPET

PAPER

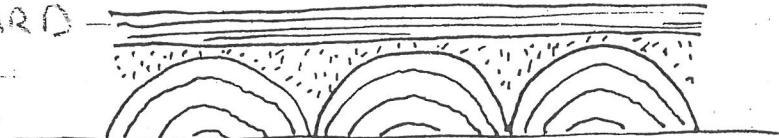
COTTON

LOGS



FIBERBOARD

SAND



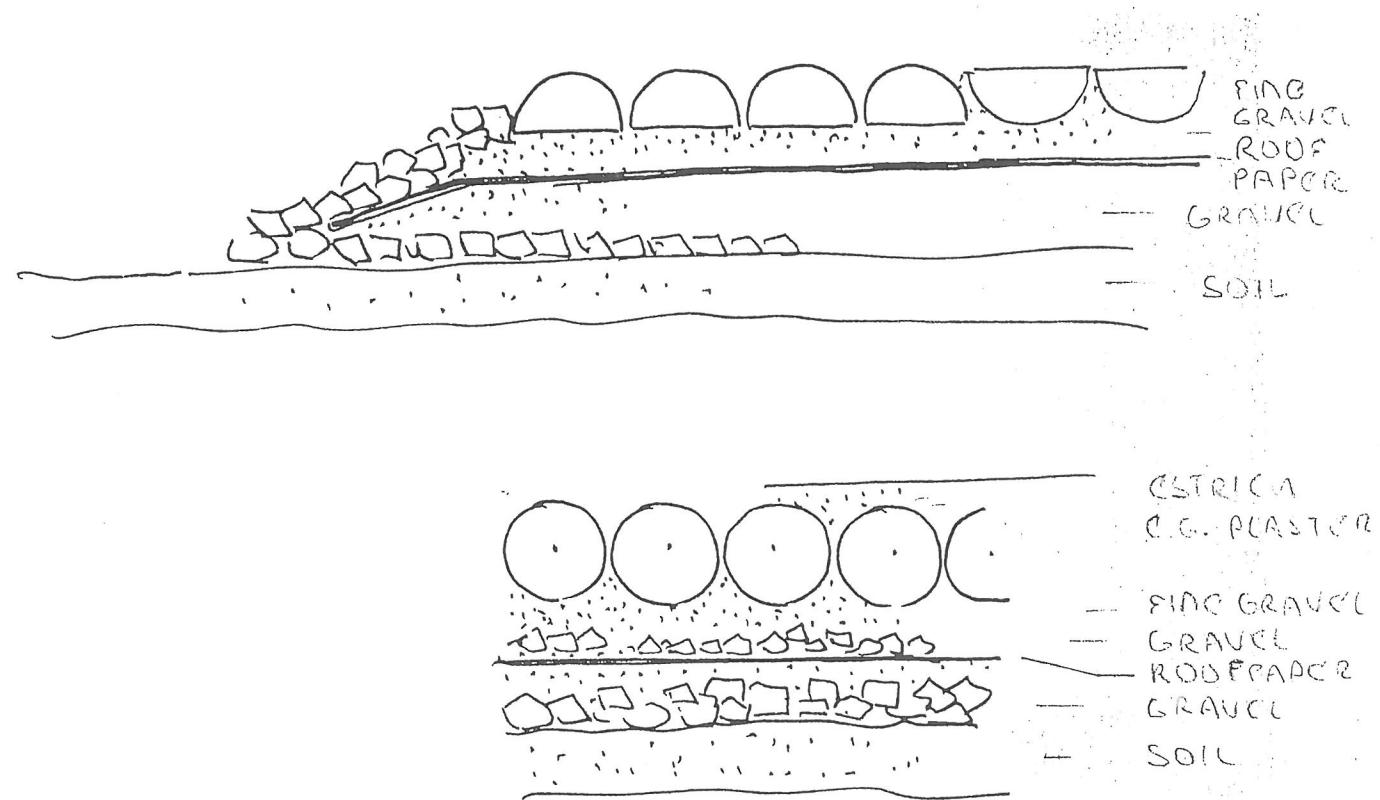
PLY WOOD /  
FIBERBOARD OR  
PLANKS  
TREATED  
WOOD  
FINE GRAVEL

GRAVEL

SOIL

LOGS  
FINE GRAVEL  
GRAVEL  
SOIL

FIBER BOARD OR  
PLANKS  
SLEEPERS  
GRAVEL



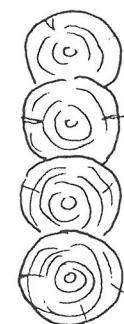
WALLS

WARMING

MUCH



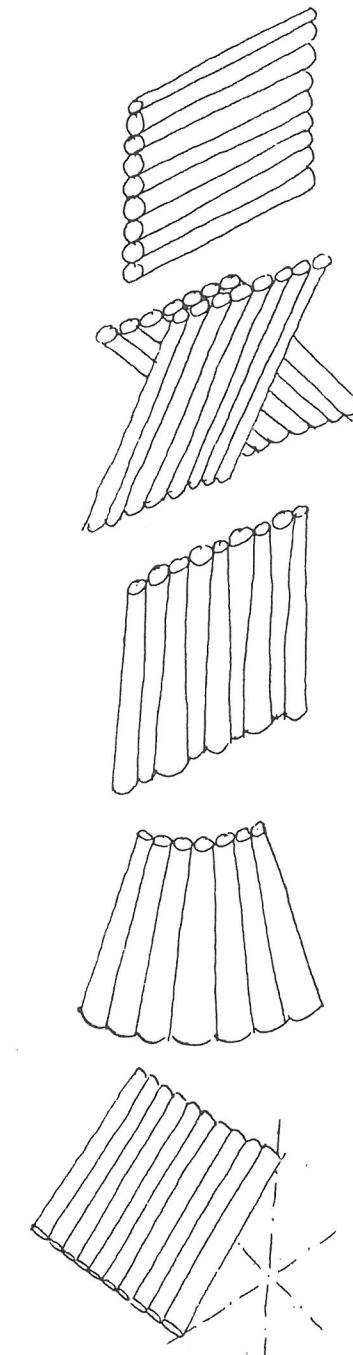
LESS



LITTLE

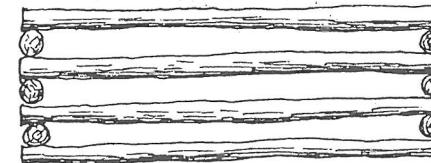


LOG WALK

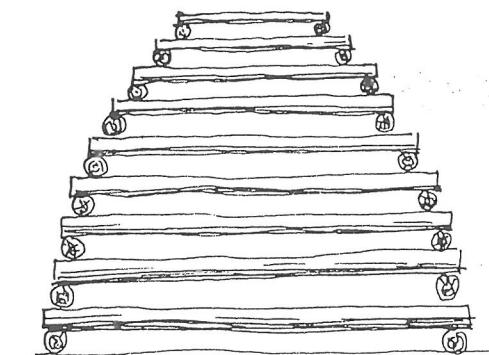
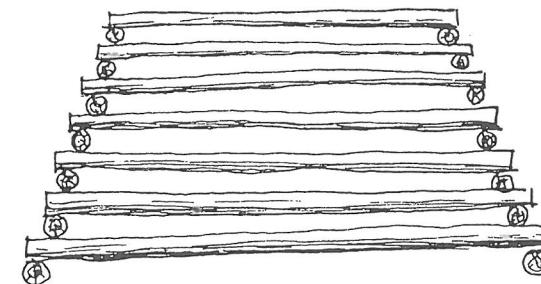
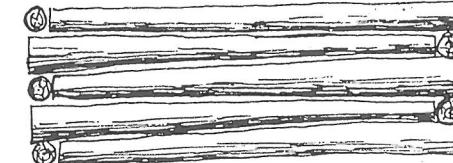


### CROSS - LOG - WALL

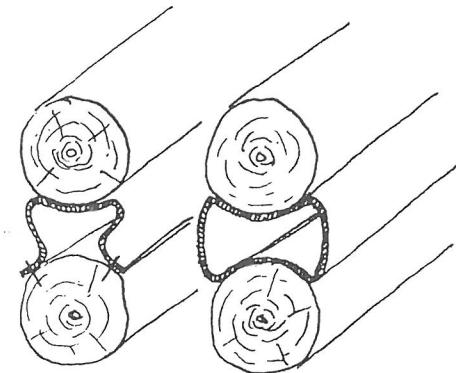
#### OPEN OR WITH INFILL



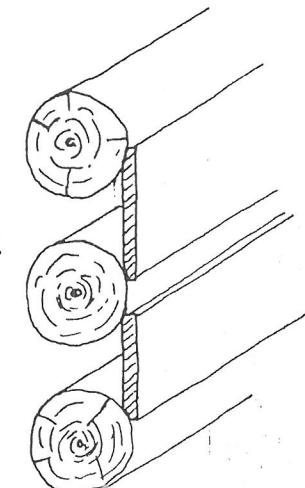
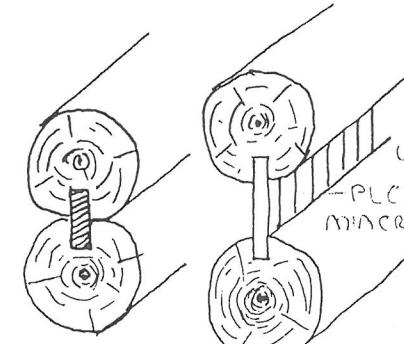
#### STAGGERED LOGS



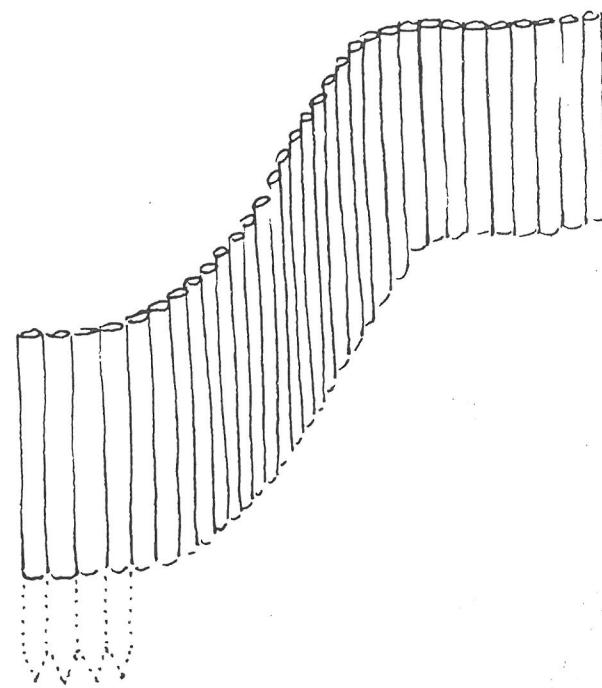
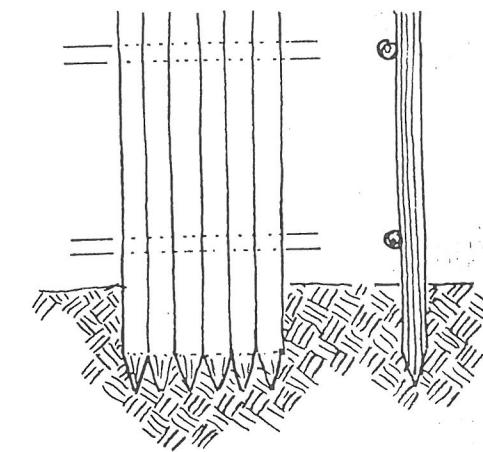
BUTYL  
IN CLEAR  
PVC TUBE

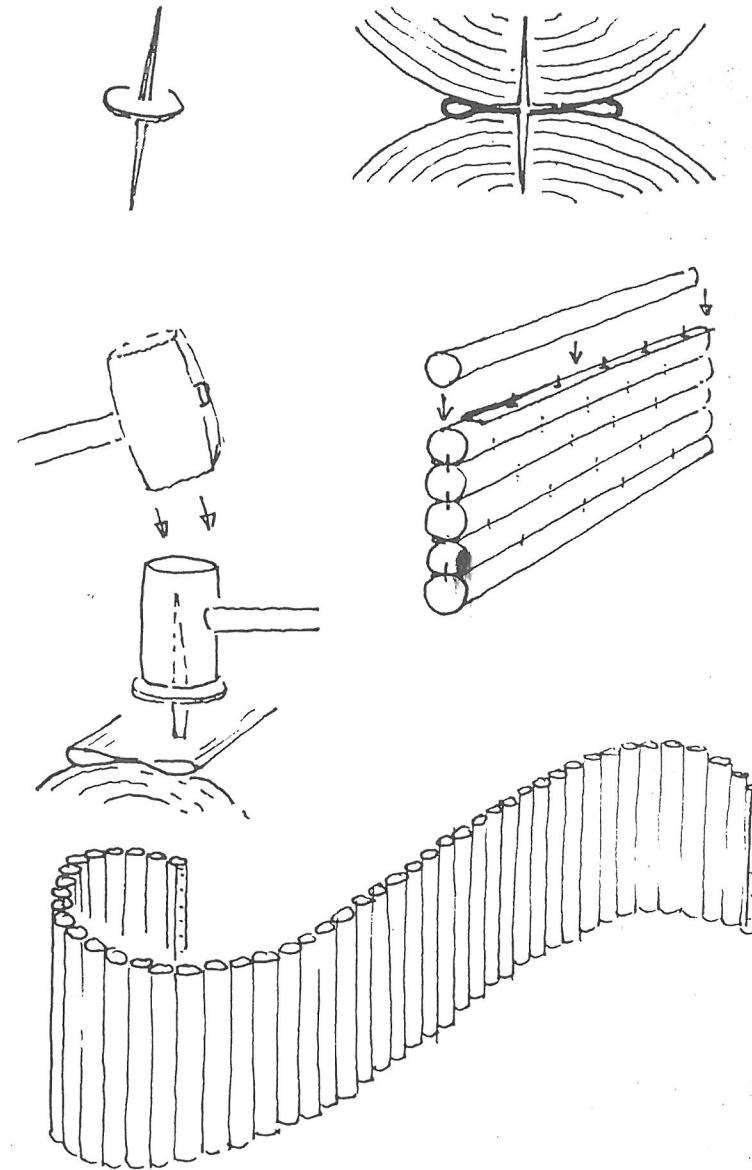


WOOD /  
-PLEXI OR  
MINERAL GLASS

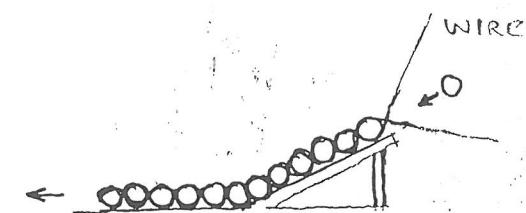
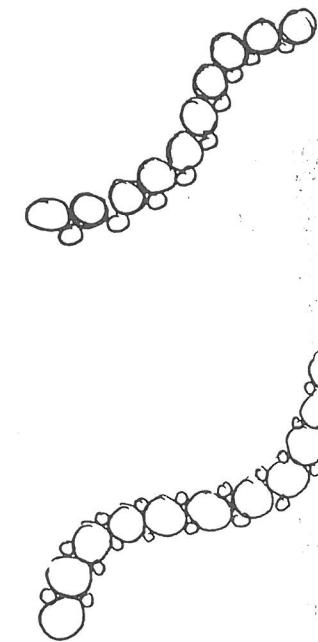
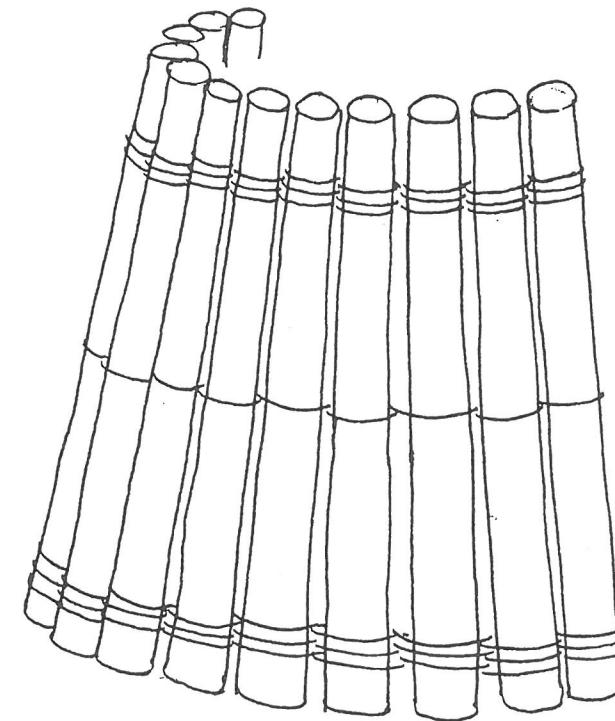


# WALL OF VERTIKAL PILES



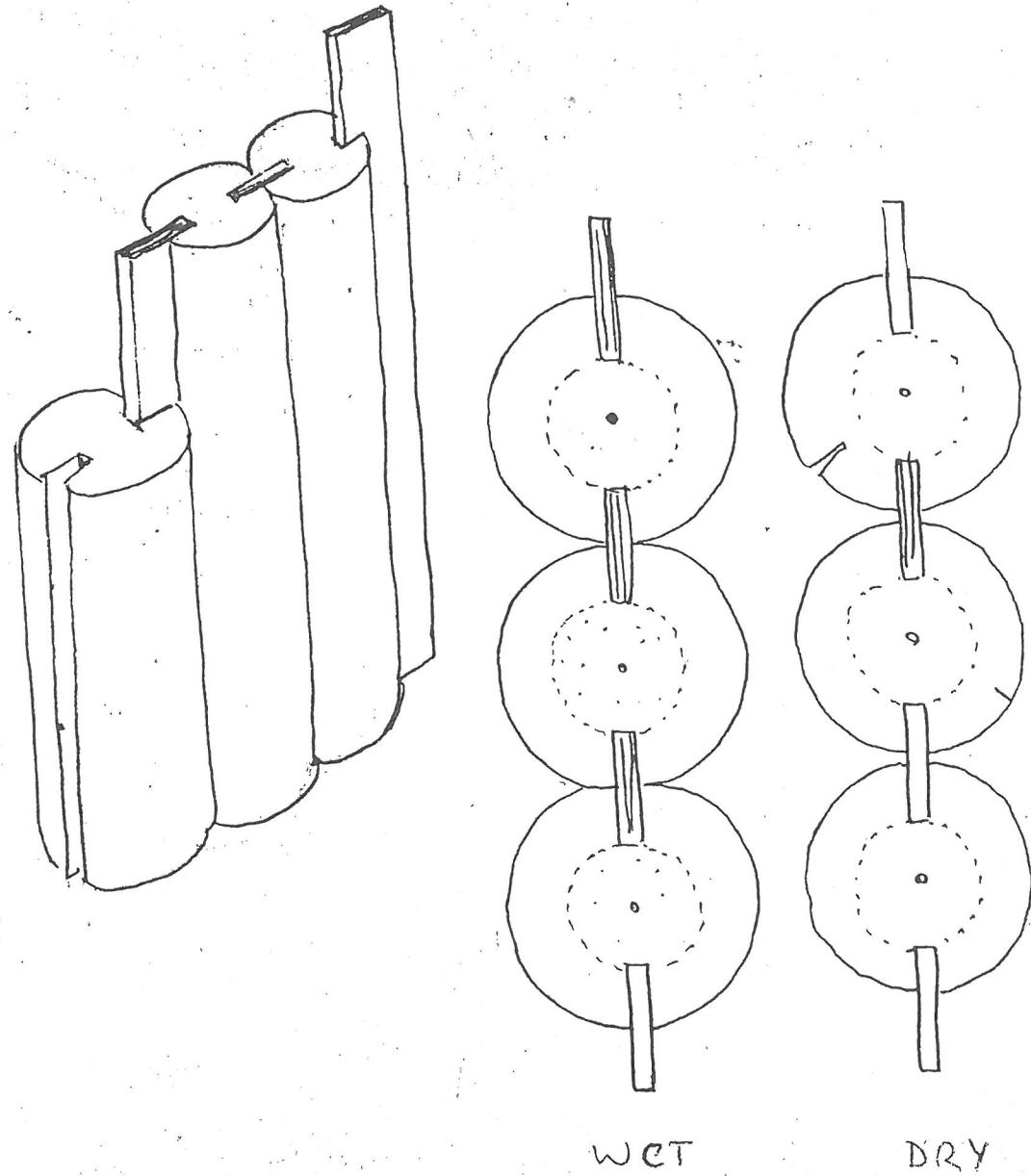


## STRING-CONNECTED PILE WALL

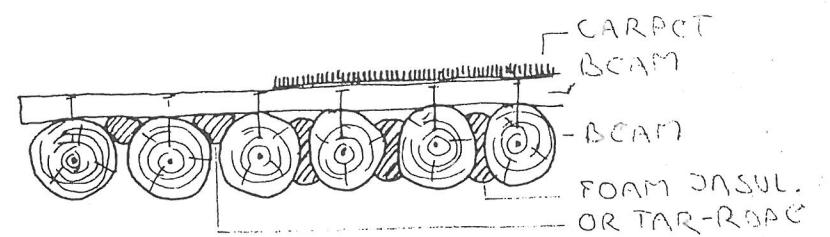
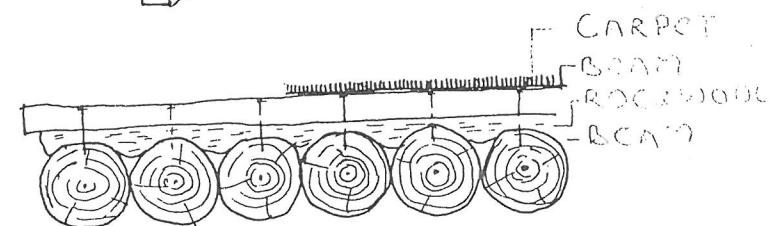
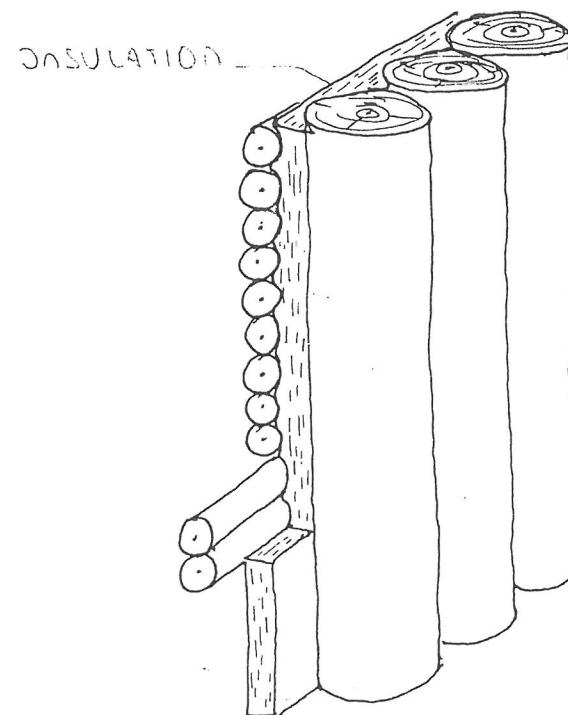


CONNECTION METHOD

NUT + SPRING  
WALL



INSULATED WALL  
OF WOODEN BEAMS

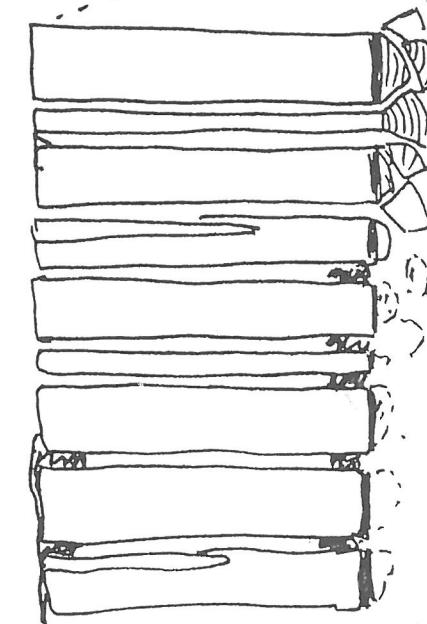
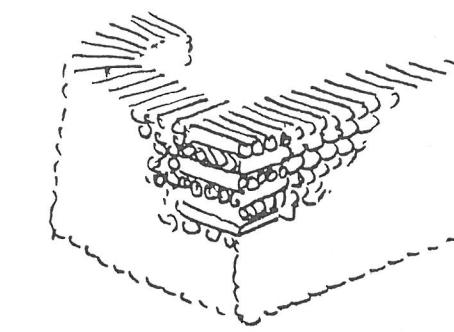
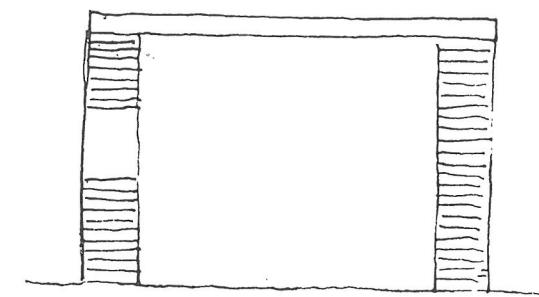


ATELIER FREI OTTO

WARMBRÖNN - 7250 LEONBERG 7 BE 07152 - 41084 (43908)

DC 10

'FIREWOOD' WALL



PLASTERED  
ON THIS SIDE

PLASTERED  
ON ONE SIDE

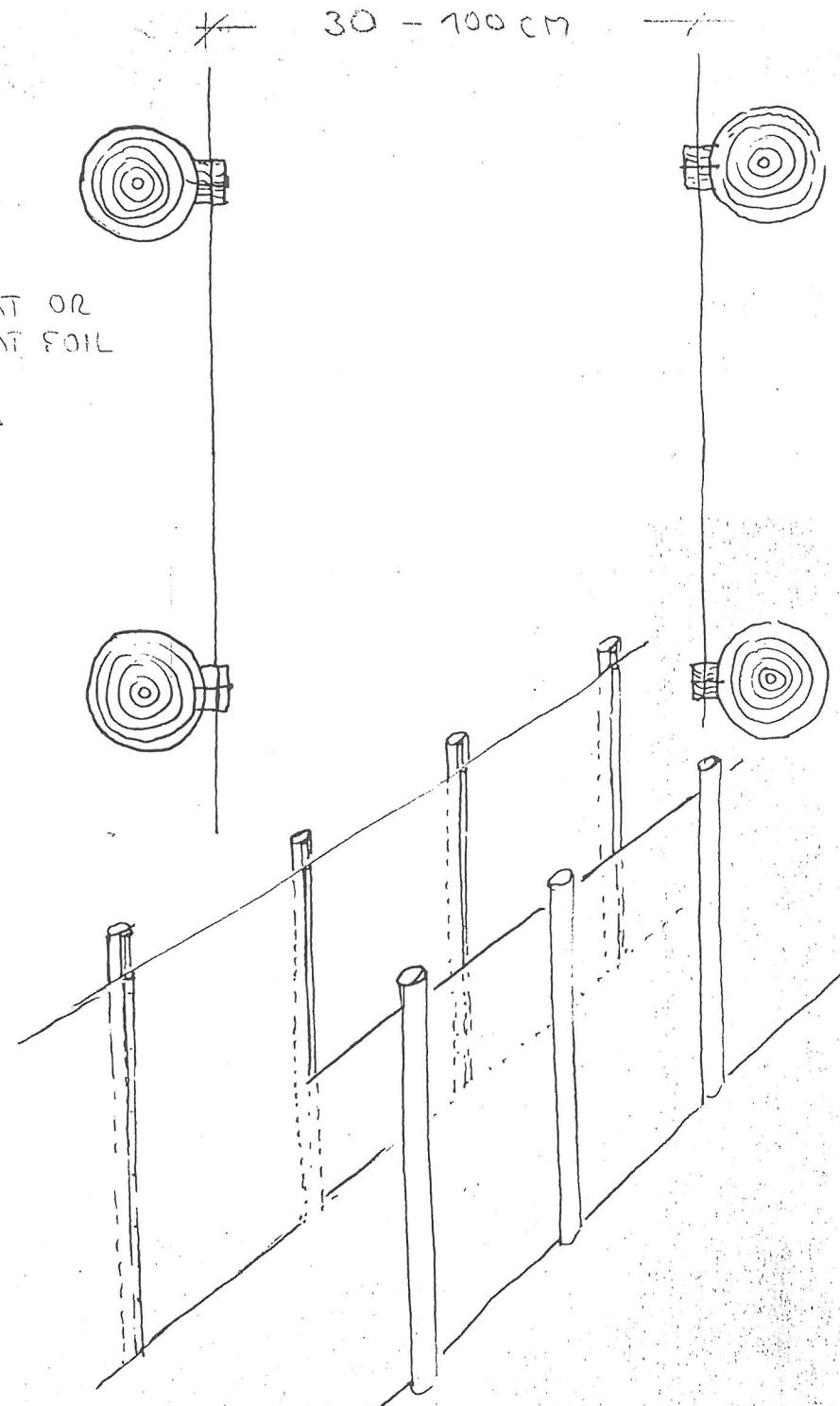
PLAN

42

# DOUBLE TEXTILE WALL

30 - 100 CM

TRANSPARENT OR  
TRANSLUCENT FOIL  
OR CANVAS



ATELIER FREI OTTO WARMBRÖNN - 7250 LEONBERG 7

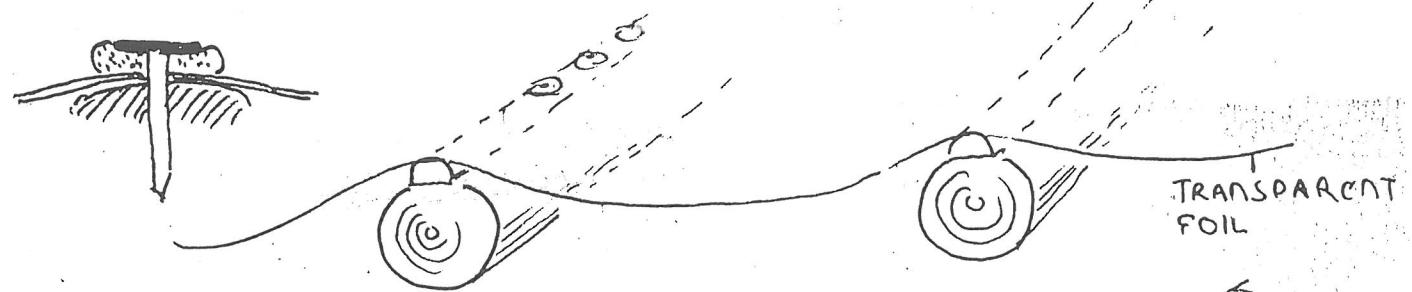
BERICHE 19

07152 - 41084 (439008)

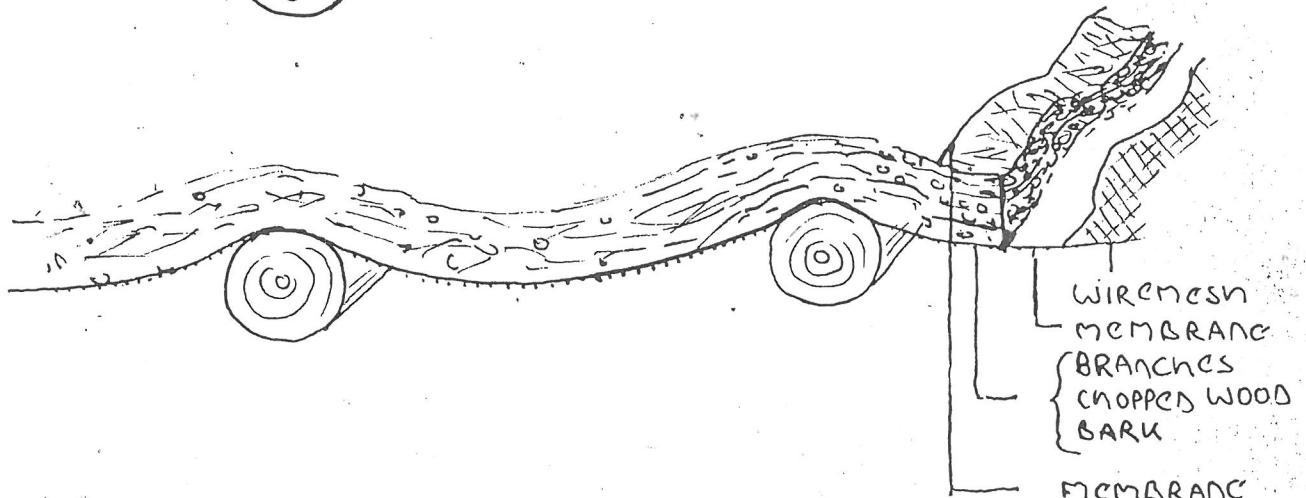
44  
ROOFING

## ROOFS

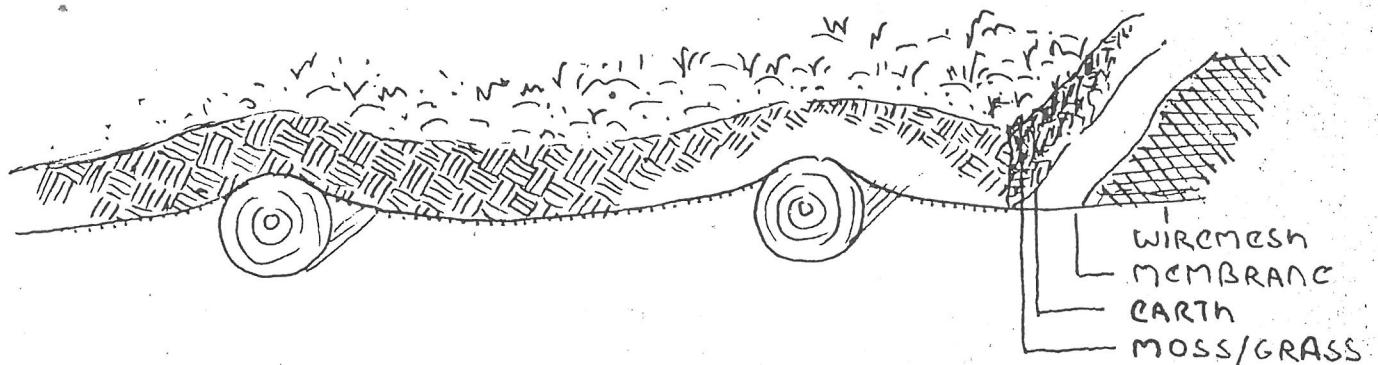
WEATHER SKIN -  
CLIMATE HULL

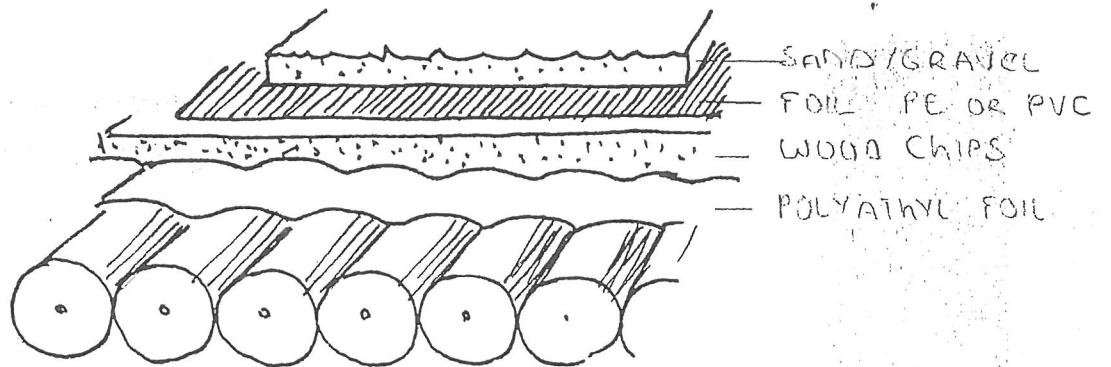


## INSULATED ROOF

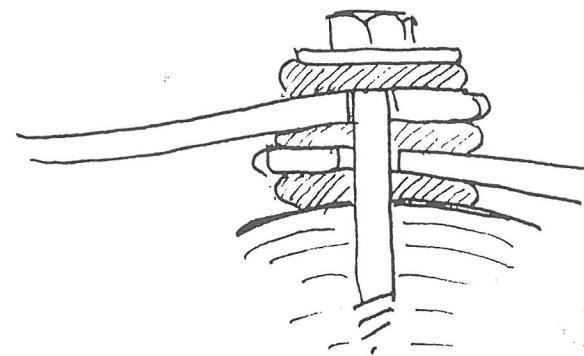
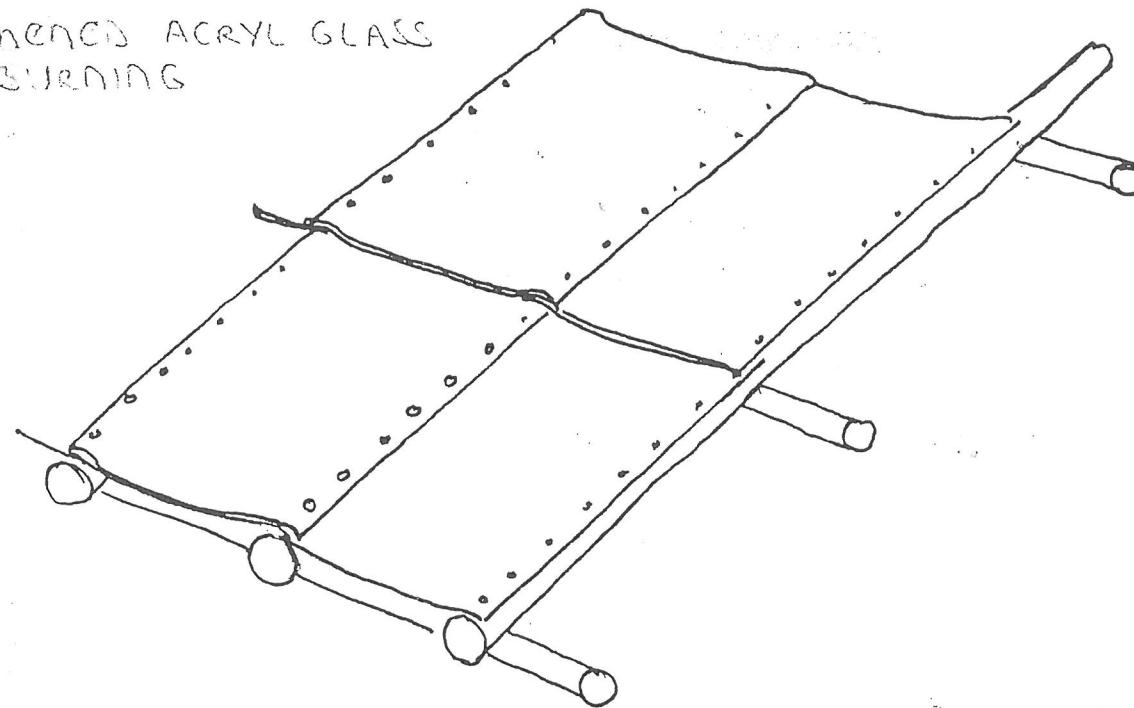


## MOSS / GRASS ROOF



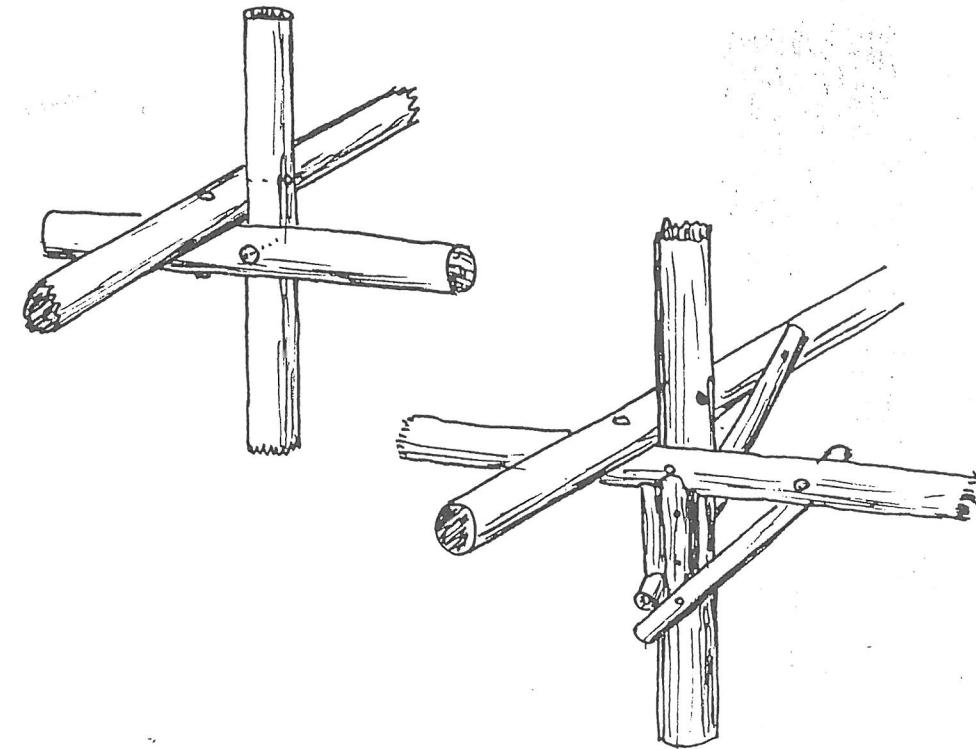


TUGHENED ACRYL GLASS  
NON BURNING

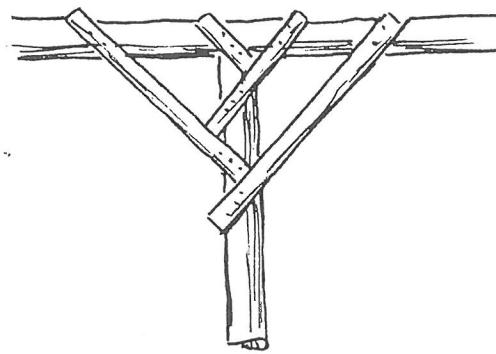
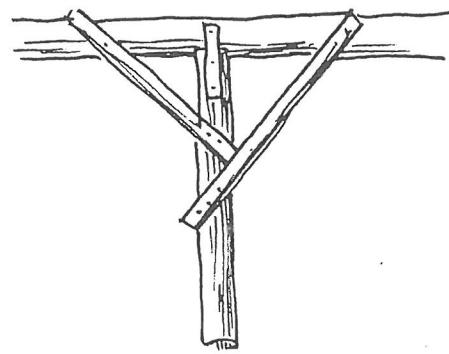


## SCCOLCTION AND FRAMEWORK

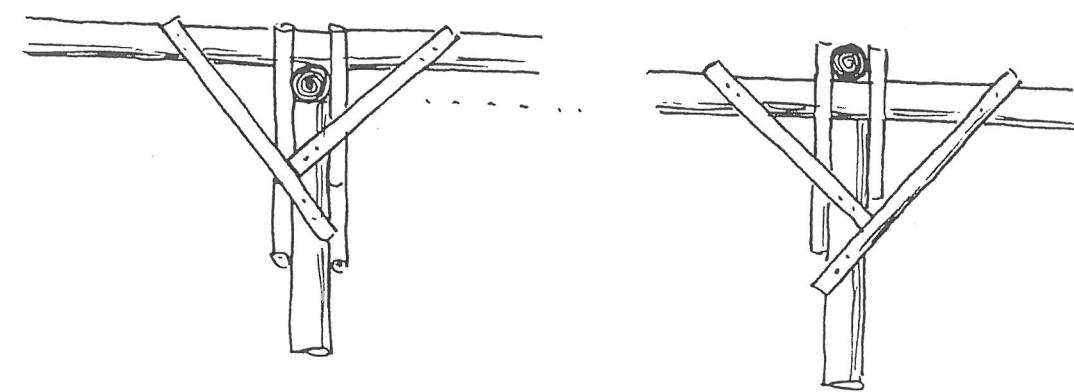
## CROSS CONNECTIONS



ATELIER FREI OT - WARMBRUNN - 7250 LEONBERG 7 BERG - LODE 10 07152 - 41084 (439000)

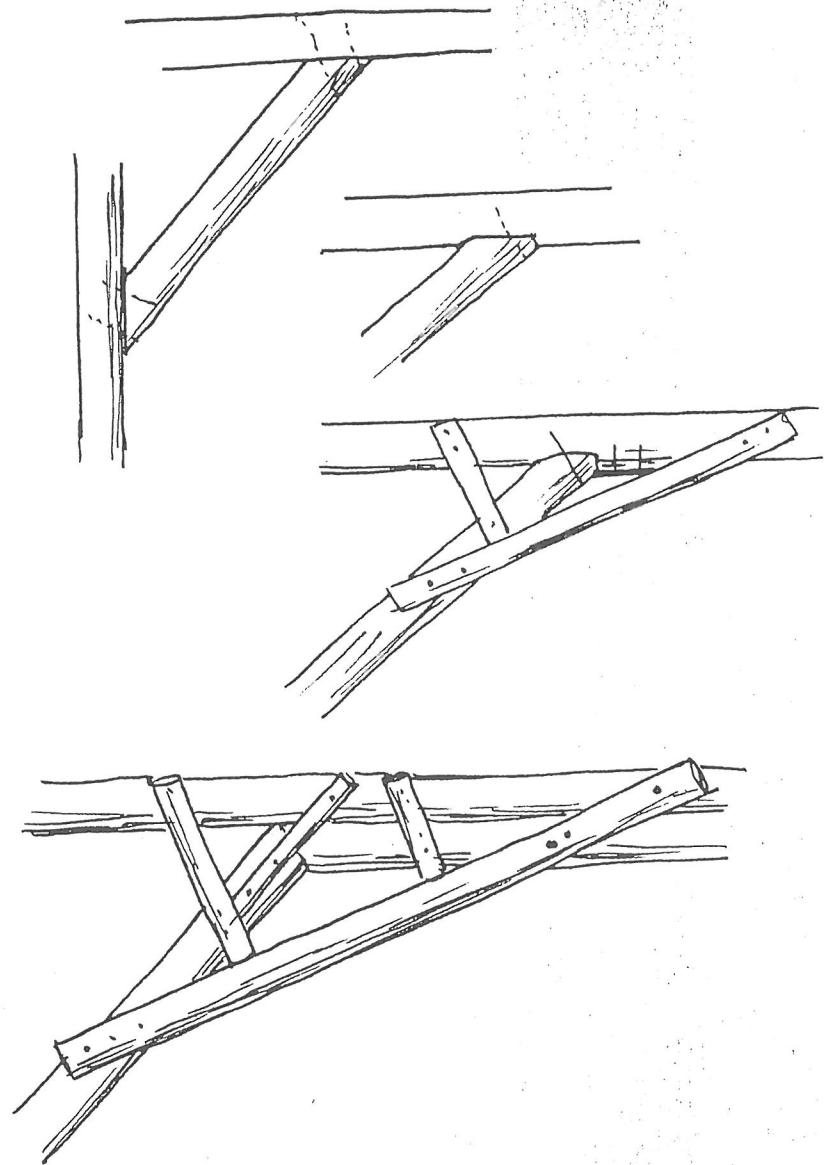
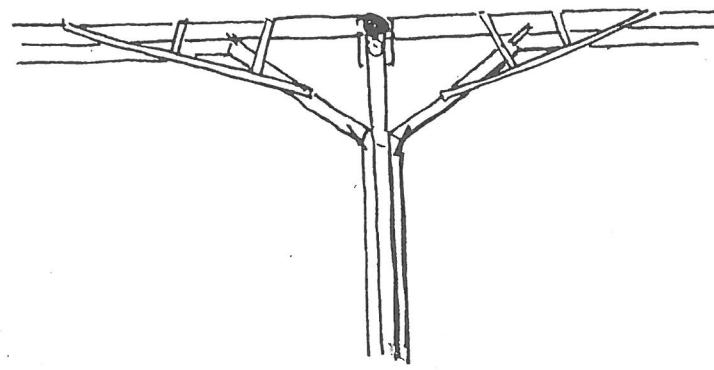


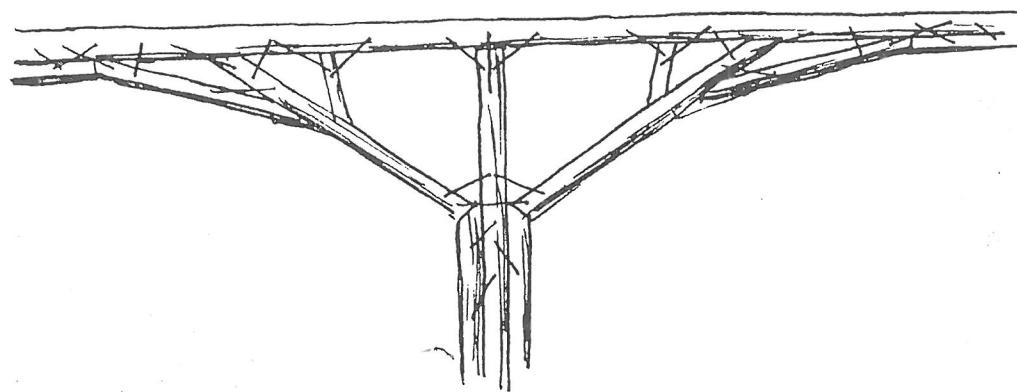
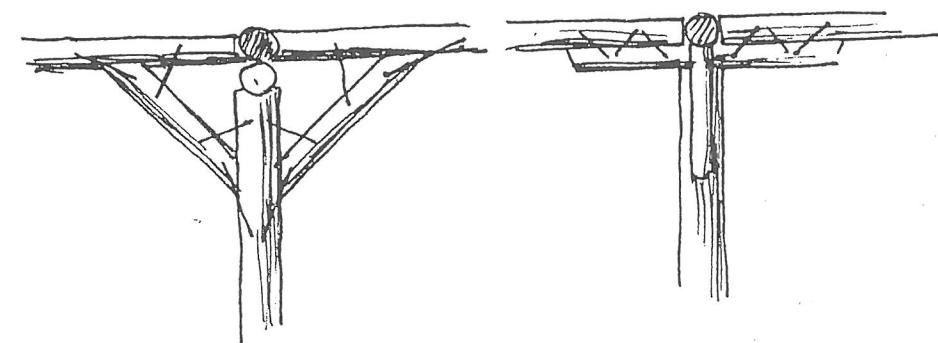
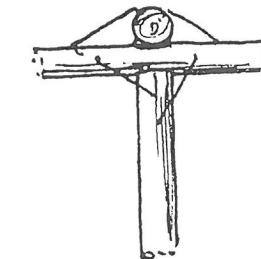
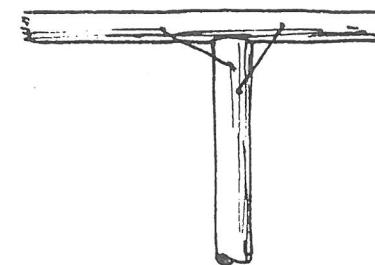
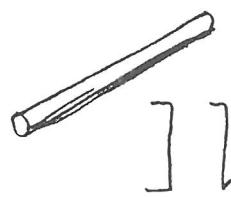
WAIKIKI MUSEUM - 7250 LEOHBERG 7 Be HALDC 19 07152 - 41084 (4391)



ATELIER FREI OTTO WARMBRUNN - 7250 LEONBERG 7 BERCE ALDE 10

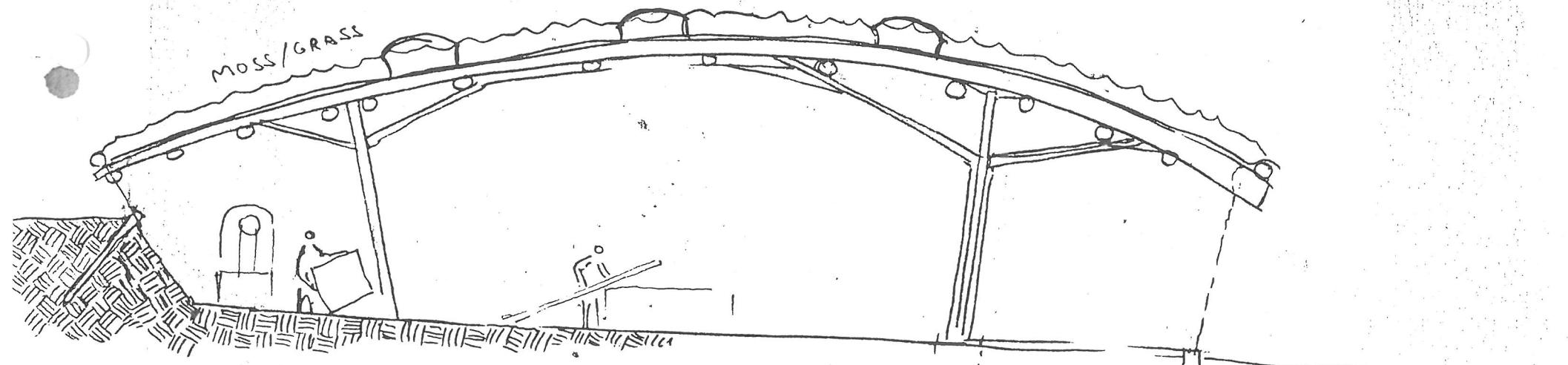
• 07152 - 41084 (43908)



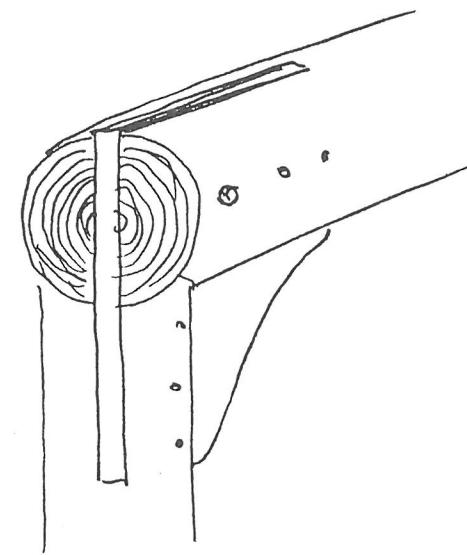
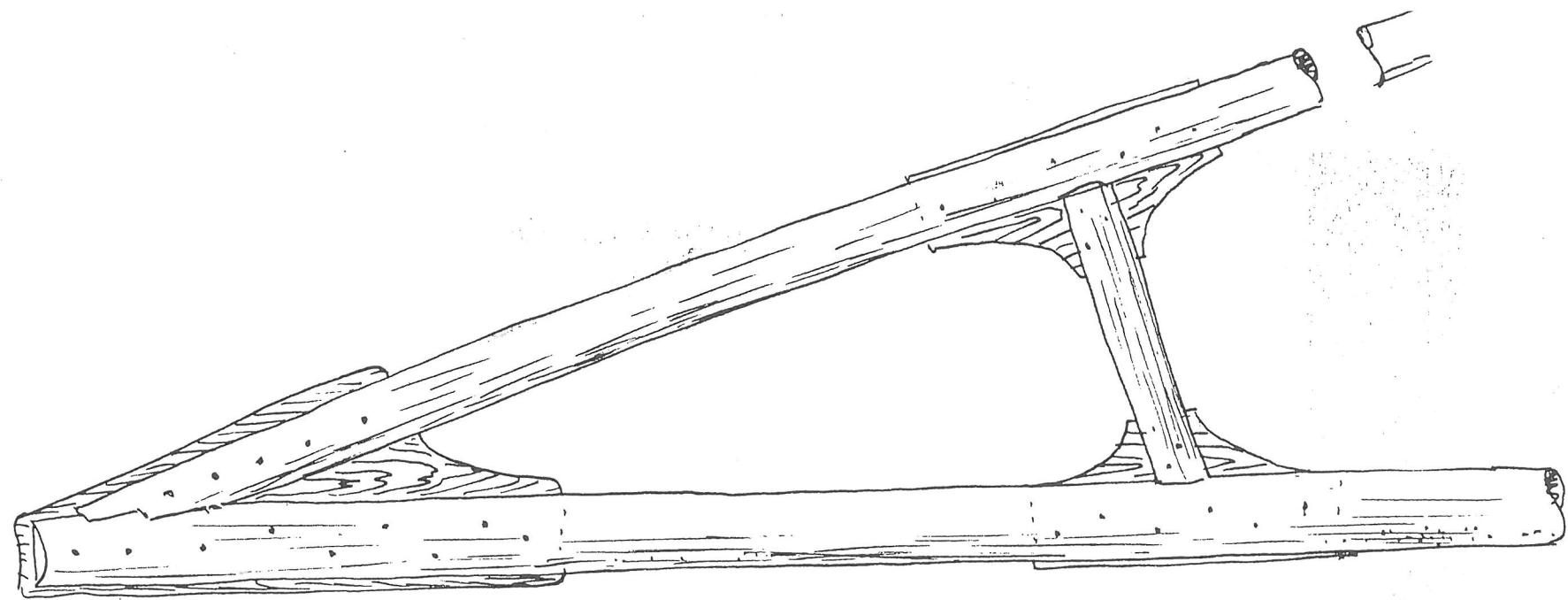


WORKSHOP - HALL  
MADE OF WHOLE  
TREE - TRUNKS

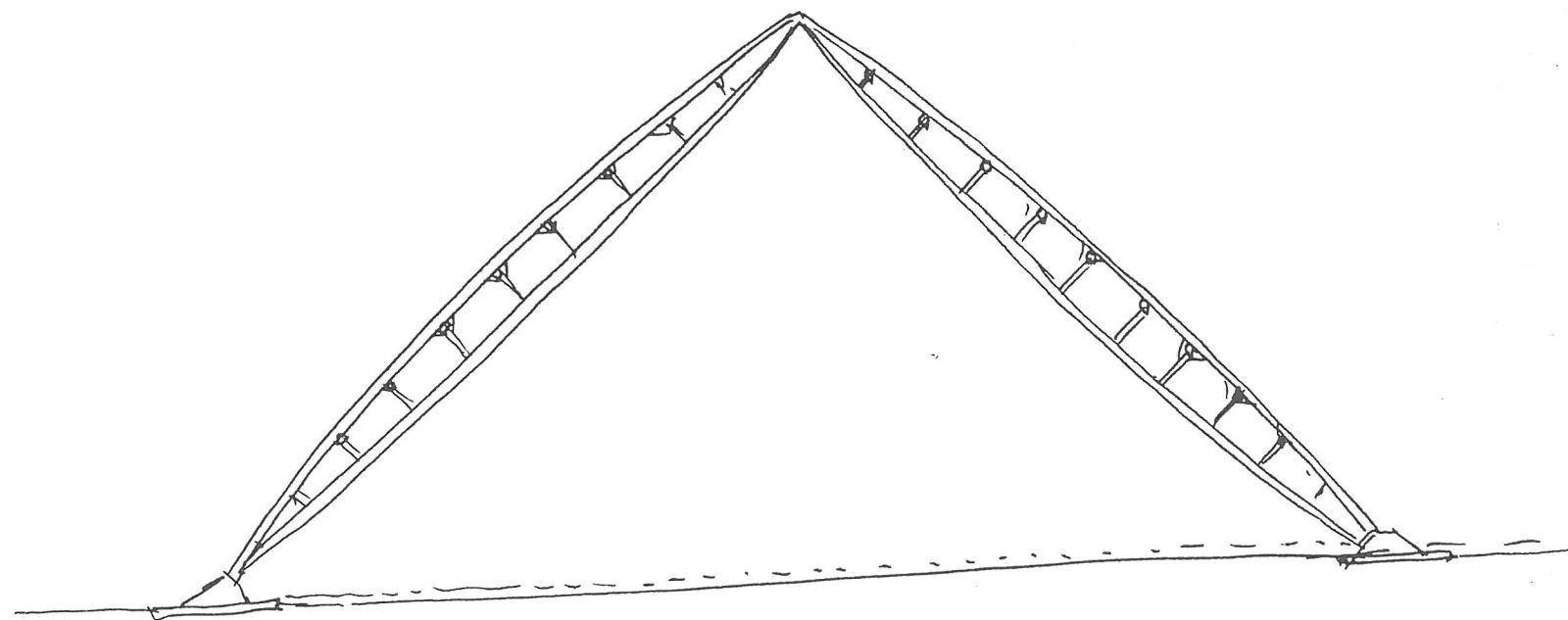
first design



ATELIER FREI OT WARMBRONN - 7250 LEONBERG 7 BCR ALDC 19 07152 - 41084 (43908)

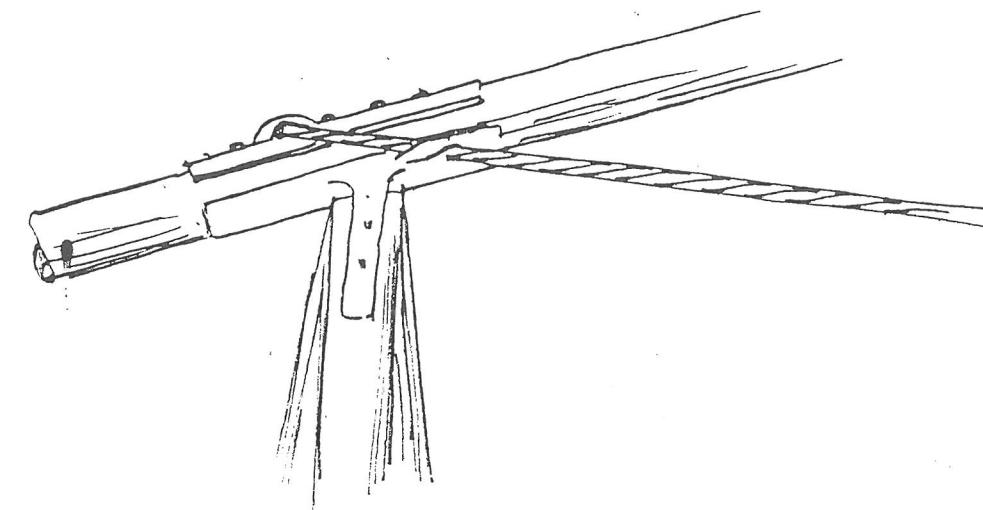
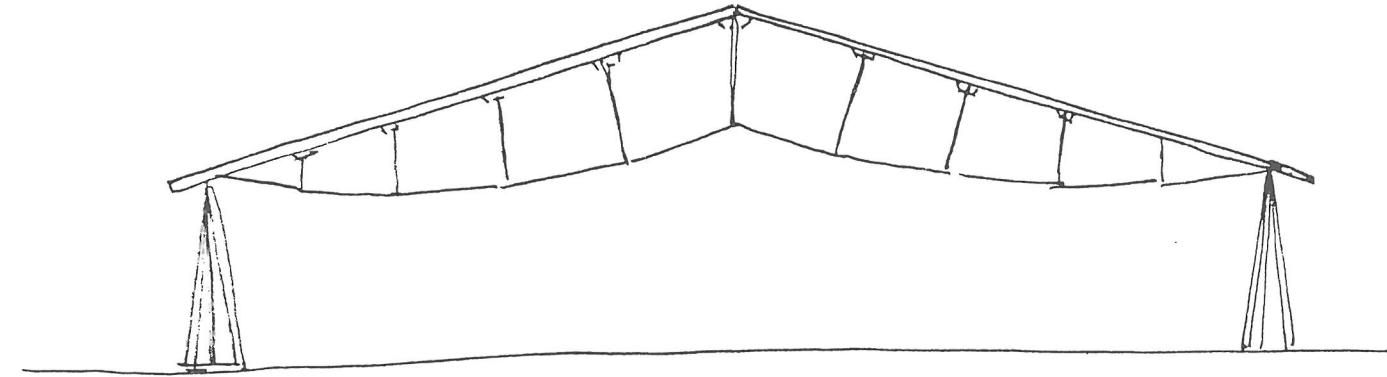


ATELIER OTTO WARMBRÖNA - 7250 LÖONBERG 7 BERGRÄNDE 19 07152 - 41084 140000



Atelier frei off ~~WIRTSCHAFT~~

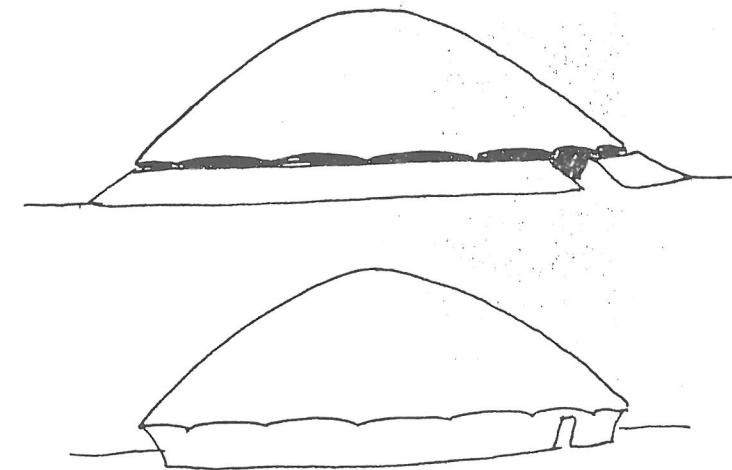
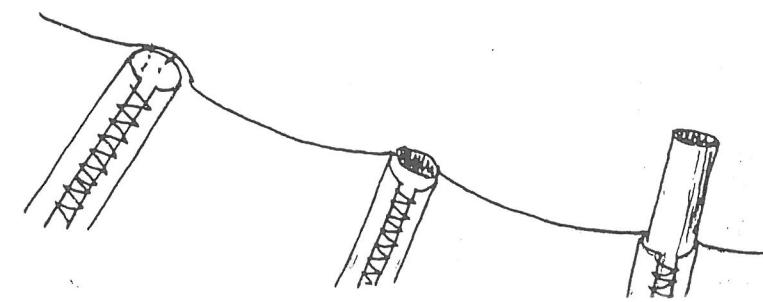
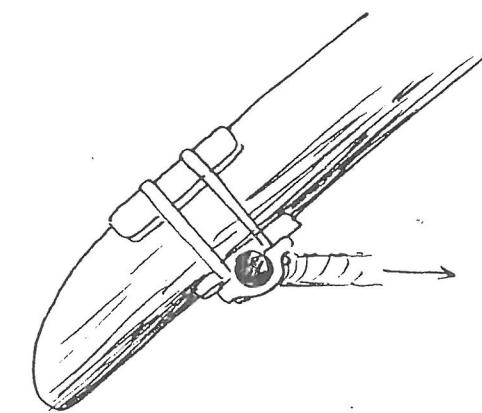
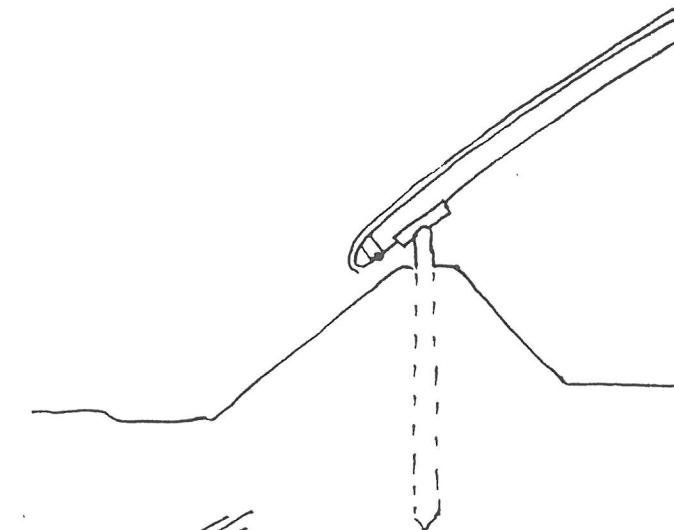
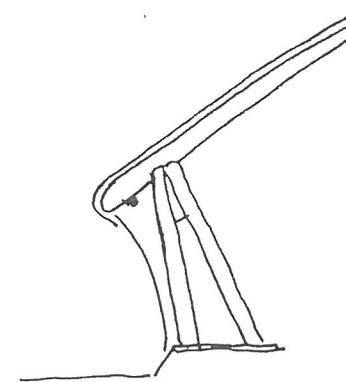
7250 LEONBERG 7 BEING DEC 19 COTIZ - ZUBER (ZEIGE)

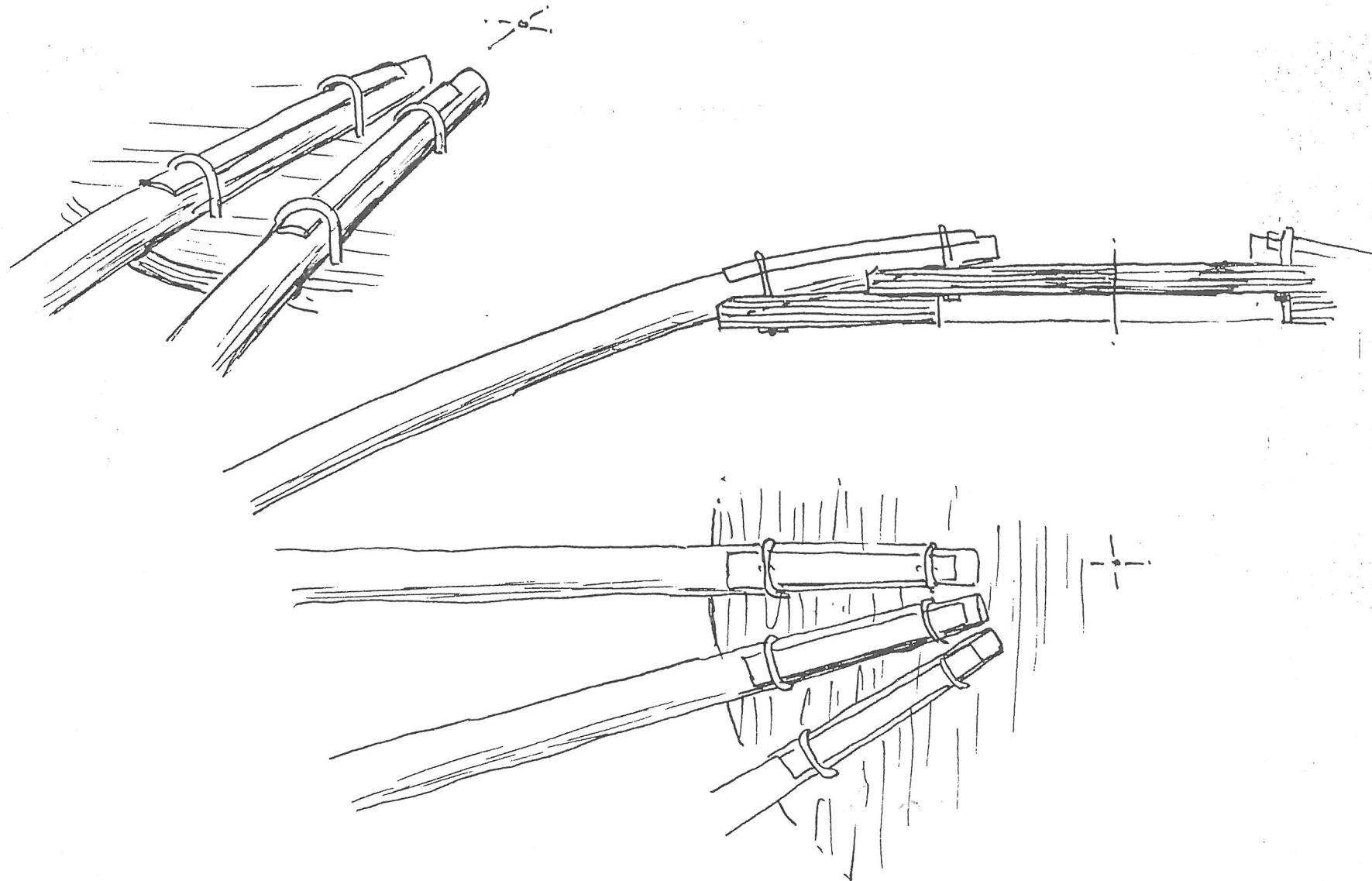


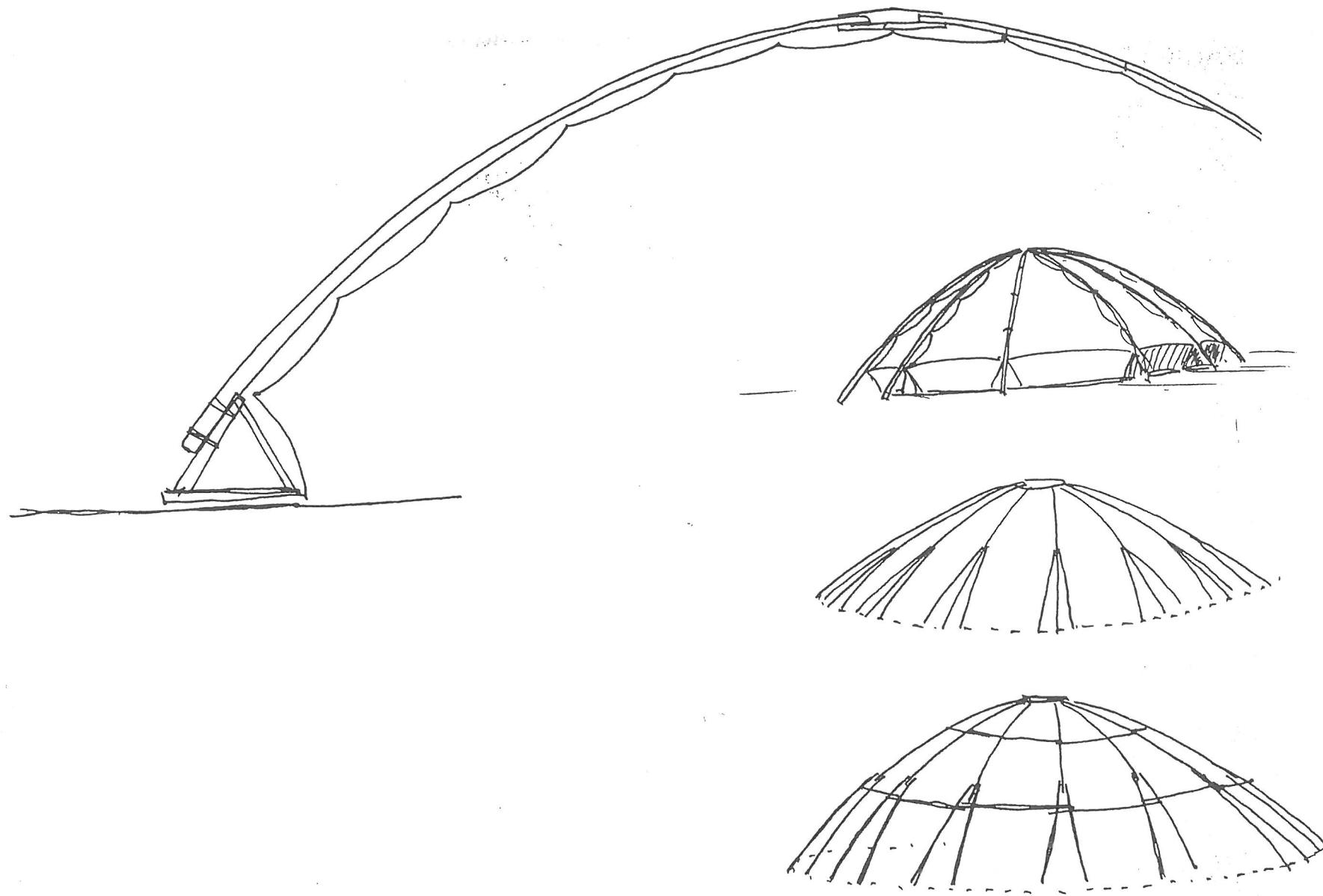
Shells

ATELIER FRÉDÉRIC WARMBRONN - 7250 LIEGE BELGIQUE DEC 19  
BERC 07152 - 41084 (43908)

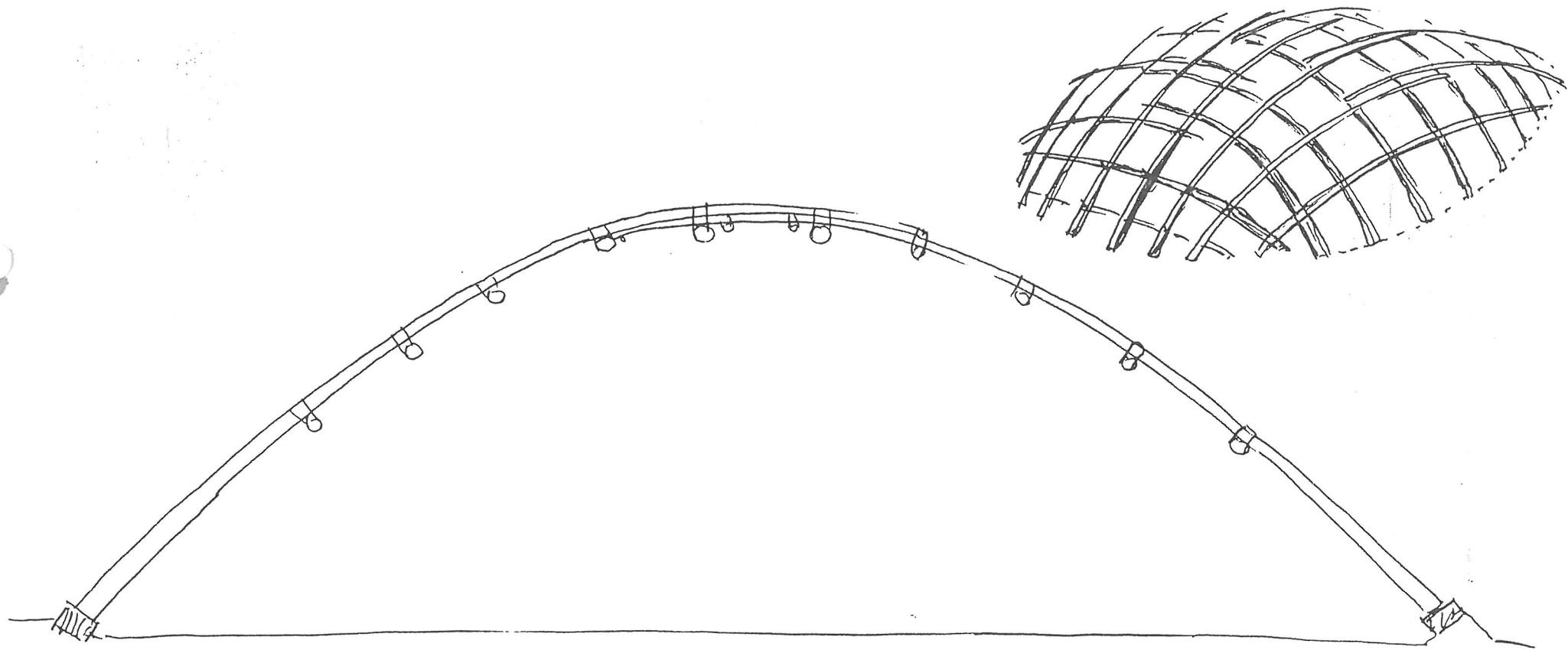
ATELIER FREI OT WARMBRÖNN - 7250 LEONBERG 7 BERGS 07152 - 41084 (43908)





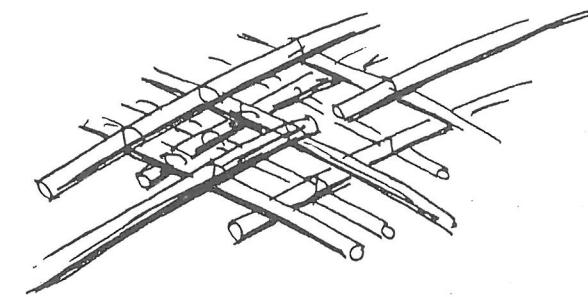
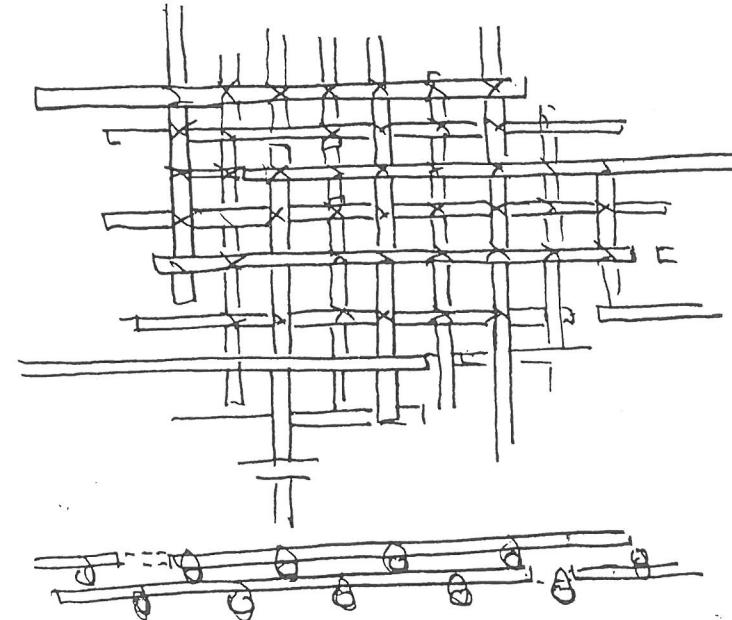
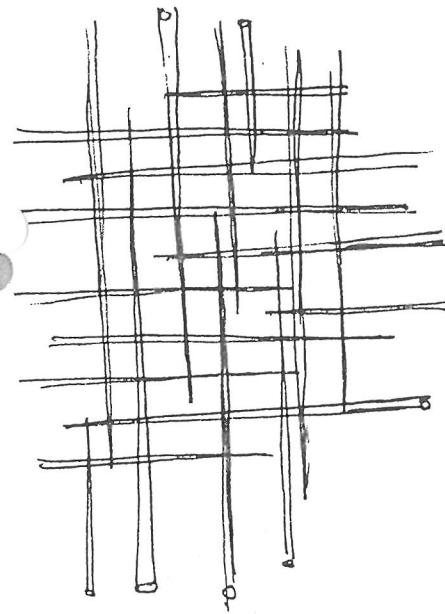


ATELIER FREDI OTTER WARMBRÖNN - 7250 LEONBERG 7 BERGHALDE 19 C 07152 - 41084 (434000)

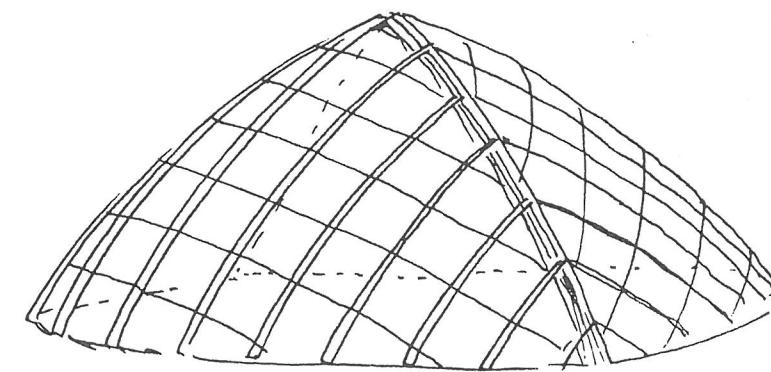
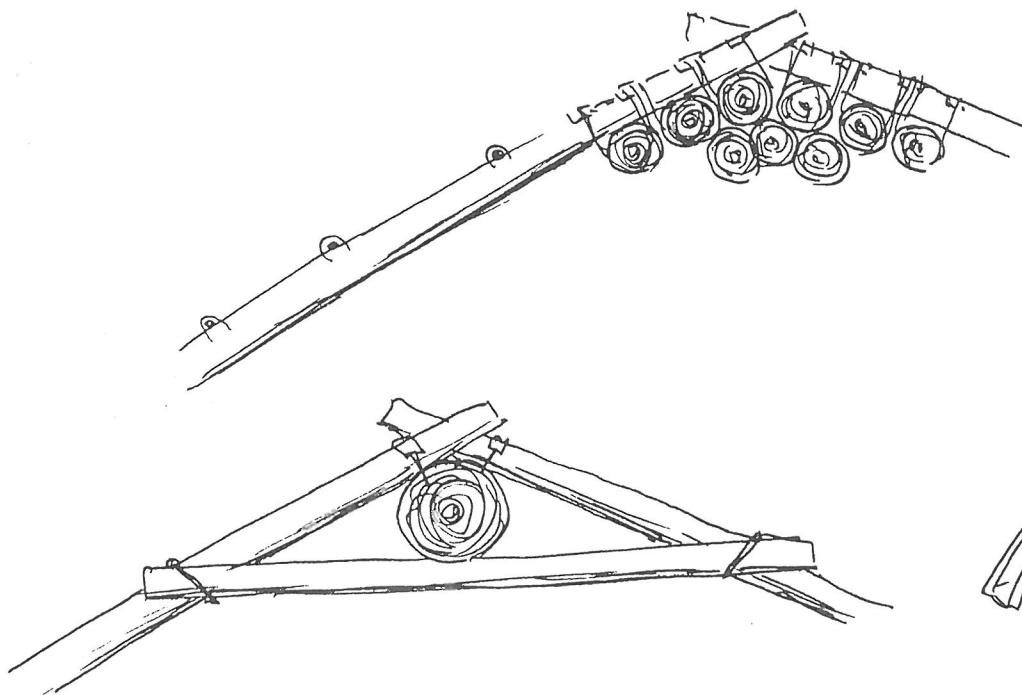


ATELIER FREI OTT WARMBRÖNN - 72250 LEONBERG 7 BERG 19 DE 19

07152 - 41084 (43908)



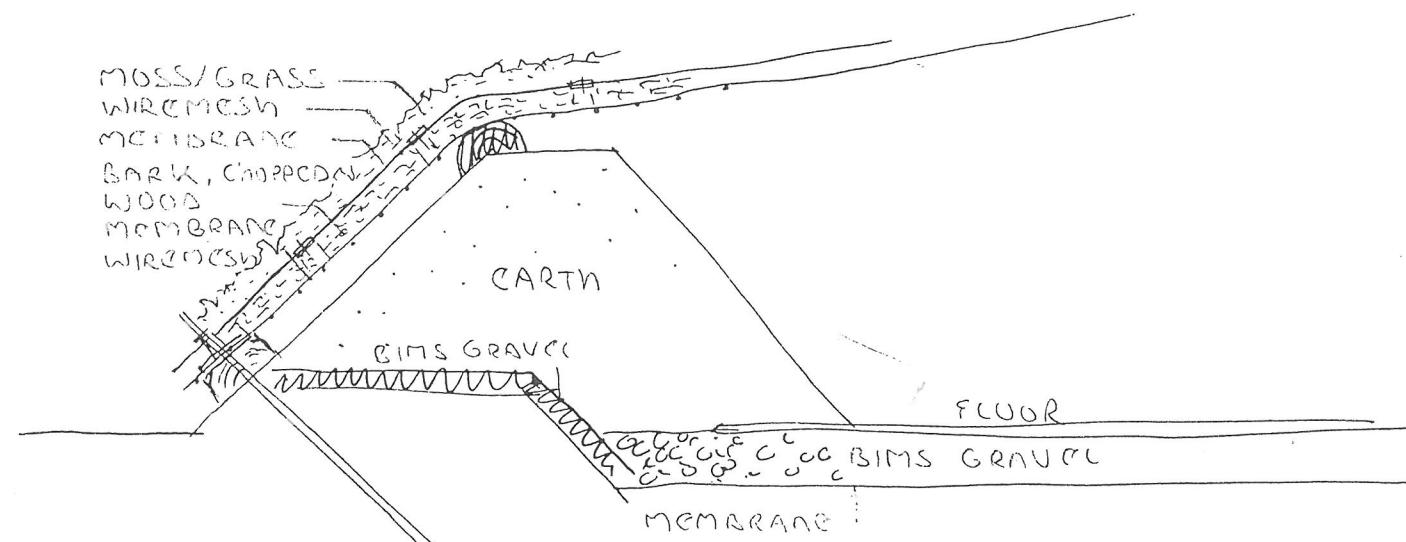
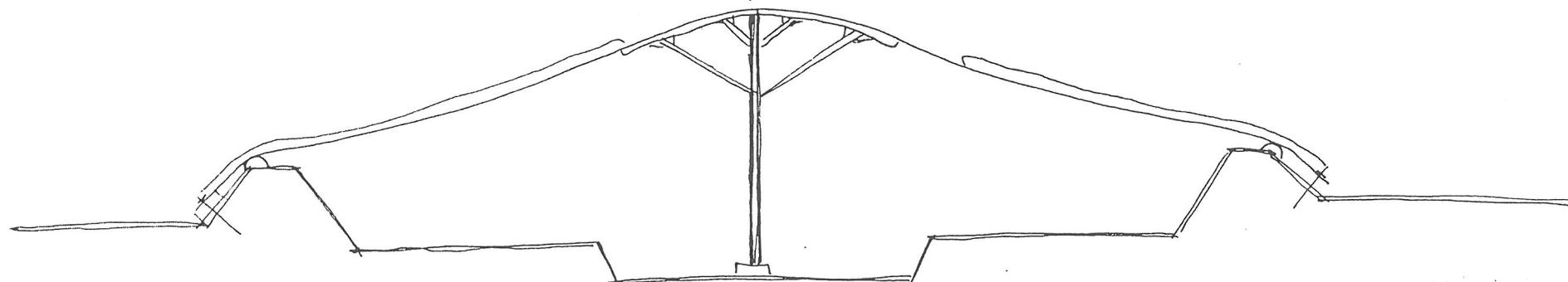
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TCNTS

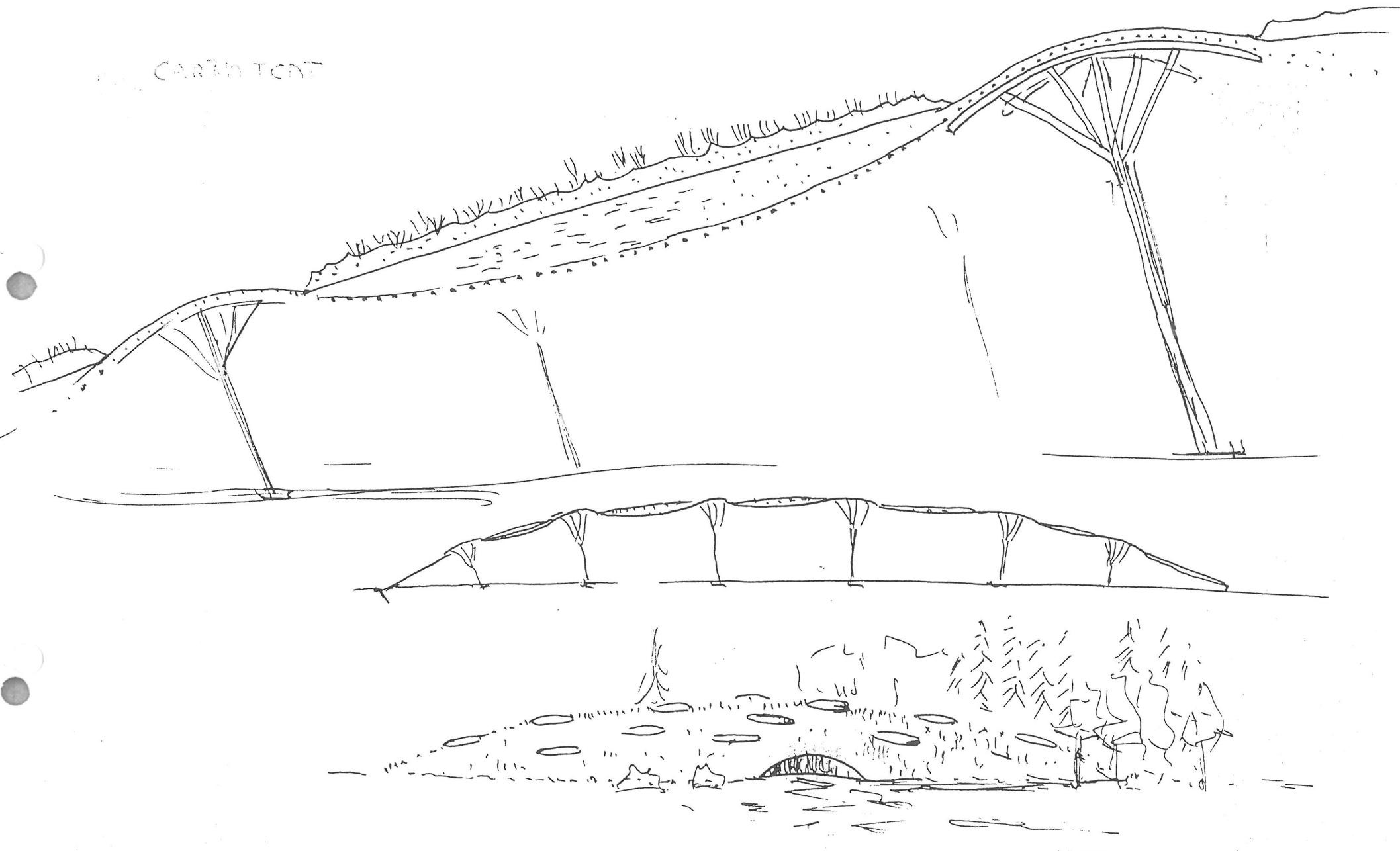
ATELIER FREL OT WARMBRÖNN - 7250 LEONBERG 7 BER ALDE 19 07152 - 41084 (43901)

CARTH T CAT

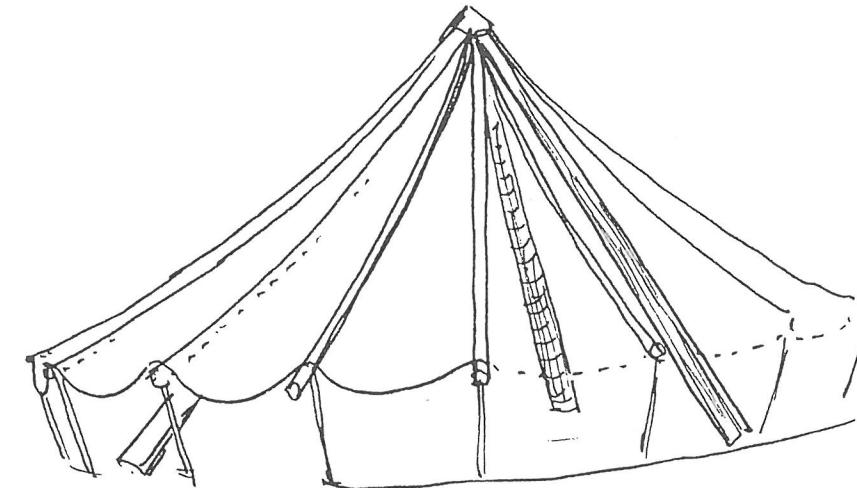
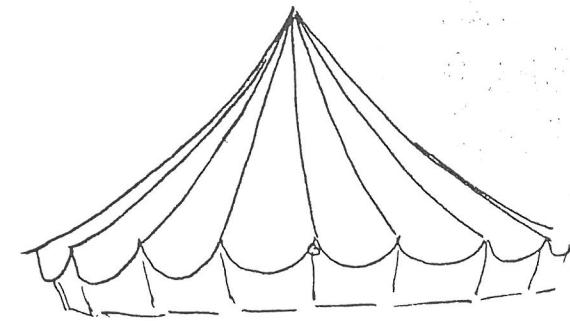
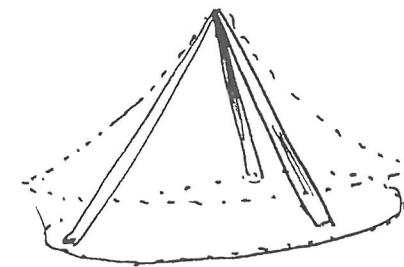


ATELIER FRED OT WARMBRONN - 7250 LEONBERG 7 BERG 1900 07152 - 41084 (43908)

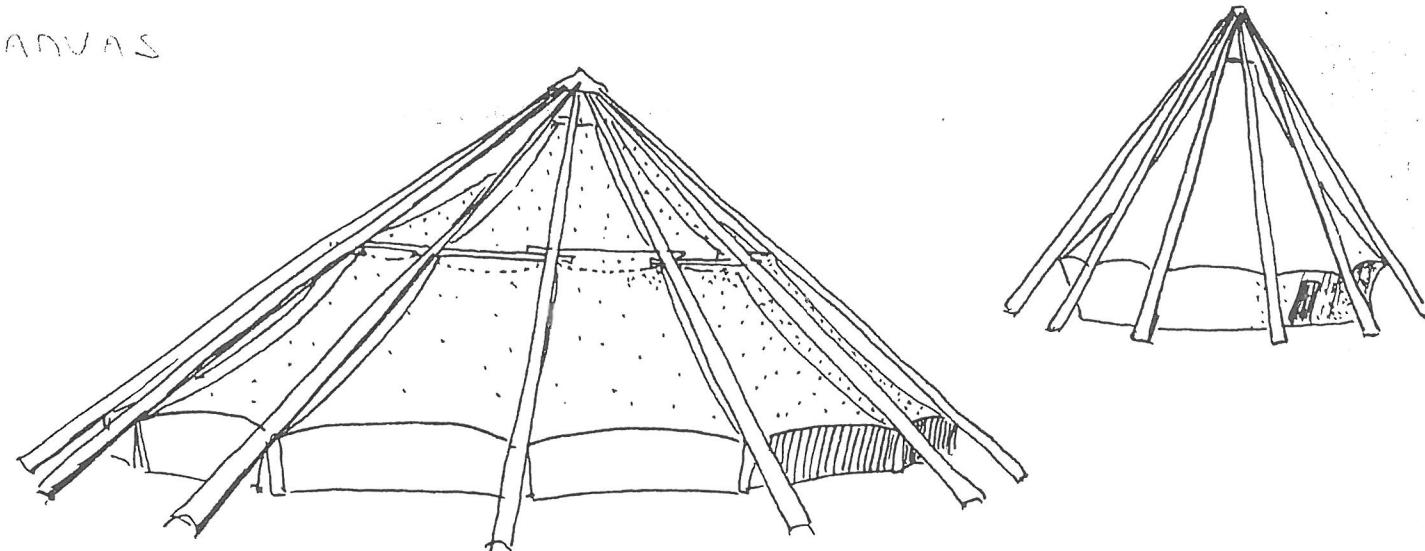
CARINA TORN



CANVAS + WOOD TENT



WOOD & CANVAS

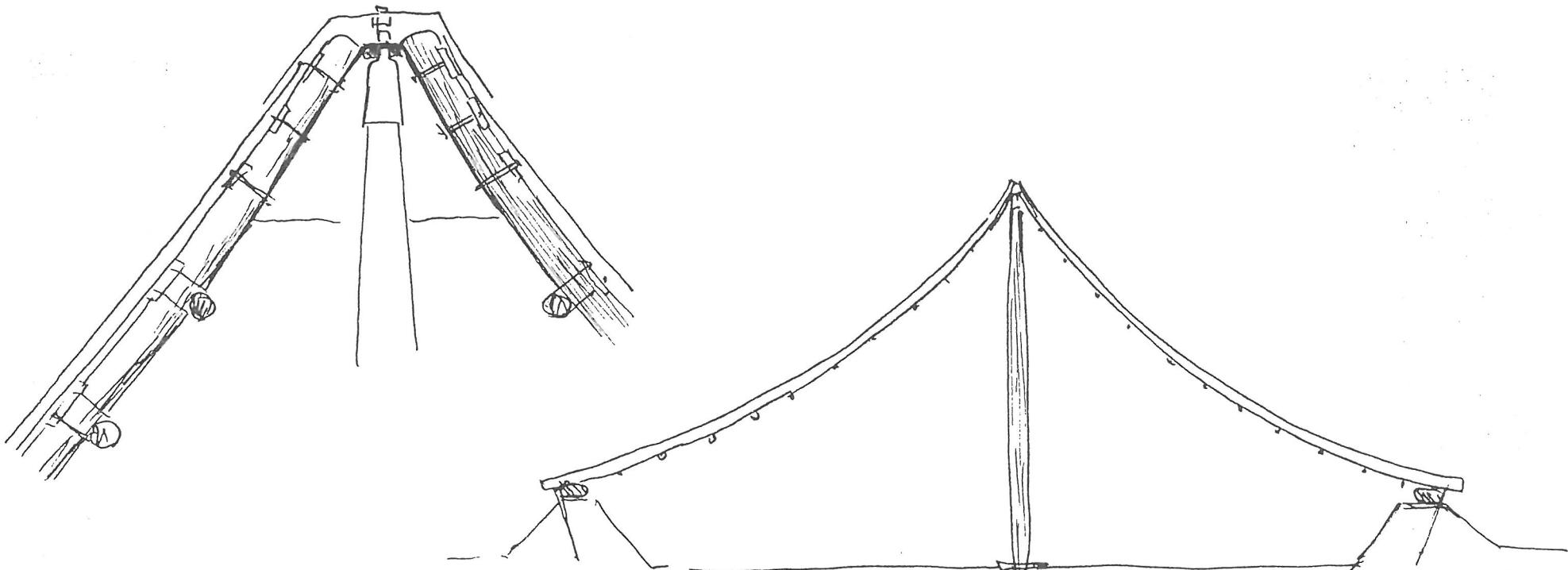


ATELIER FREI OT

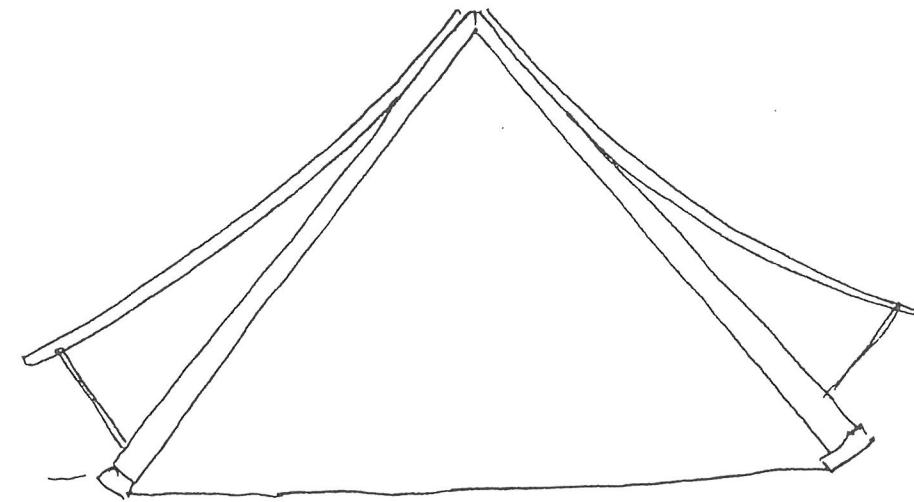
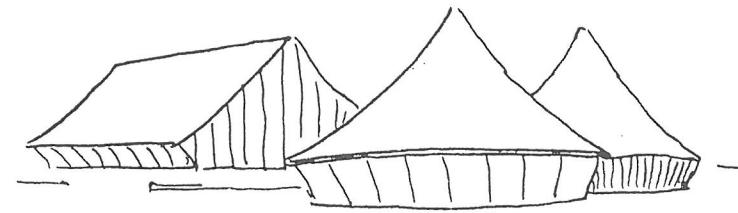
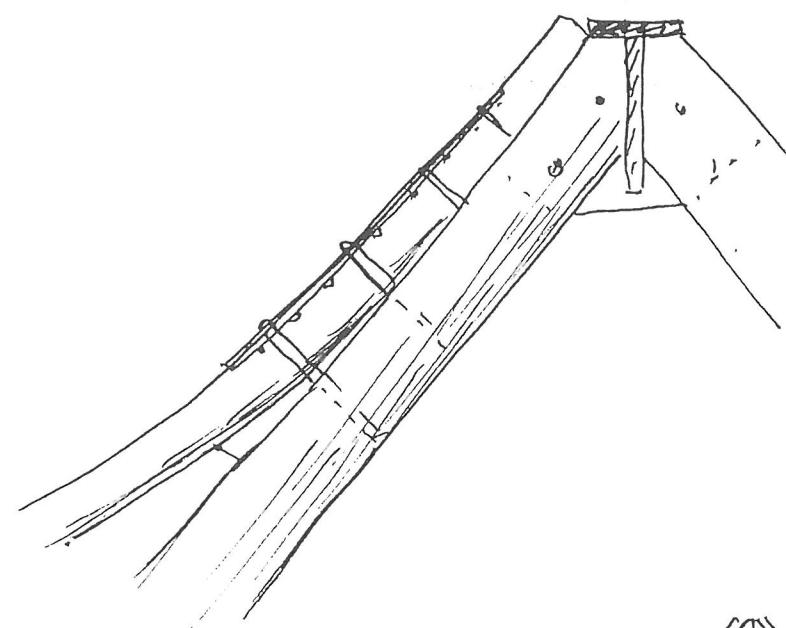
WARMBRÖNN

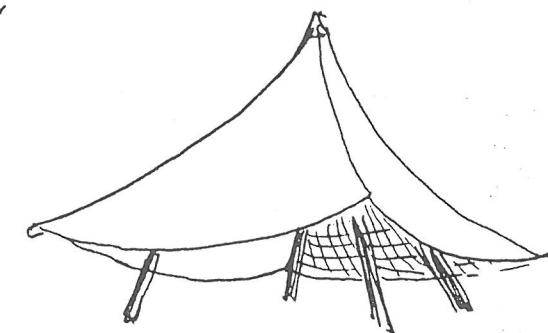
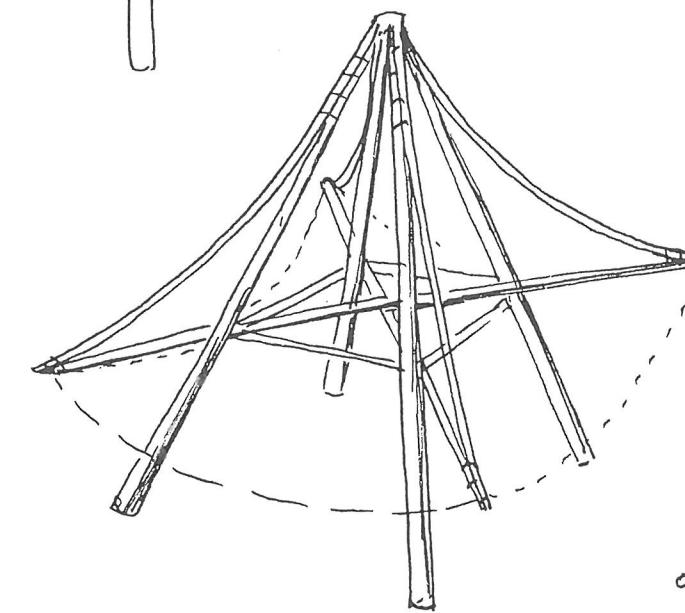
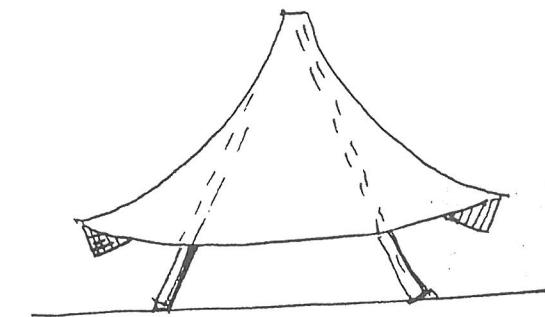
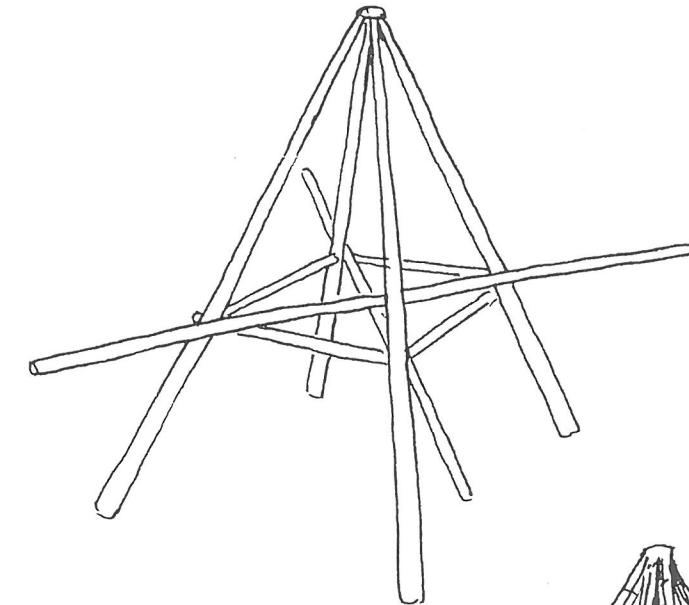
- 7250 LÖCCHENBERG 7 BCRL ILDC 19

07152 - 41084 (43908)



ATELIER FREI OT WARMBRÖNN - 7250 LEONBERG 19 BCRC VLDE 07152 - 41084 (43908)

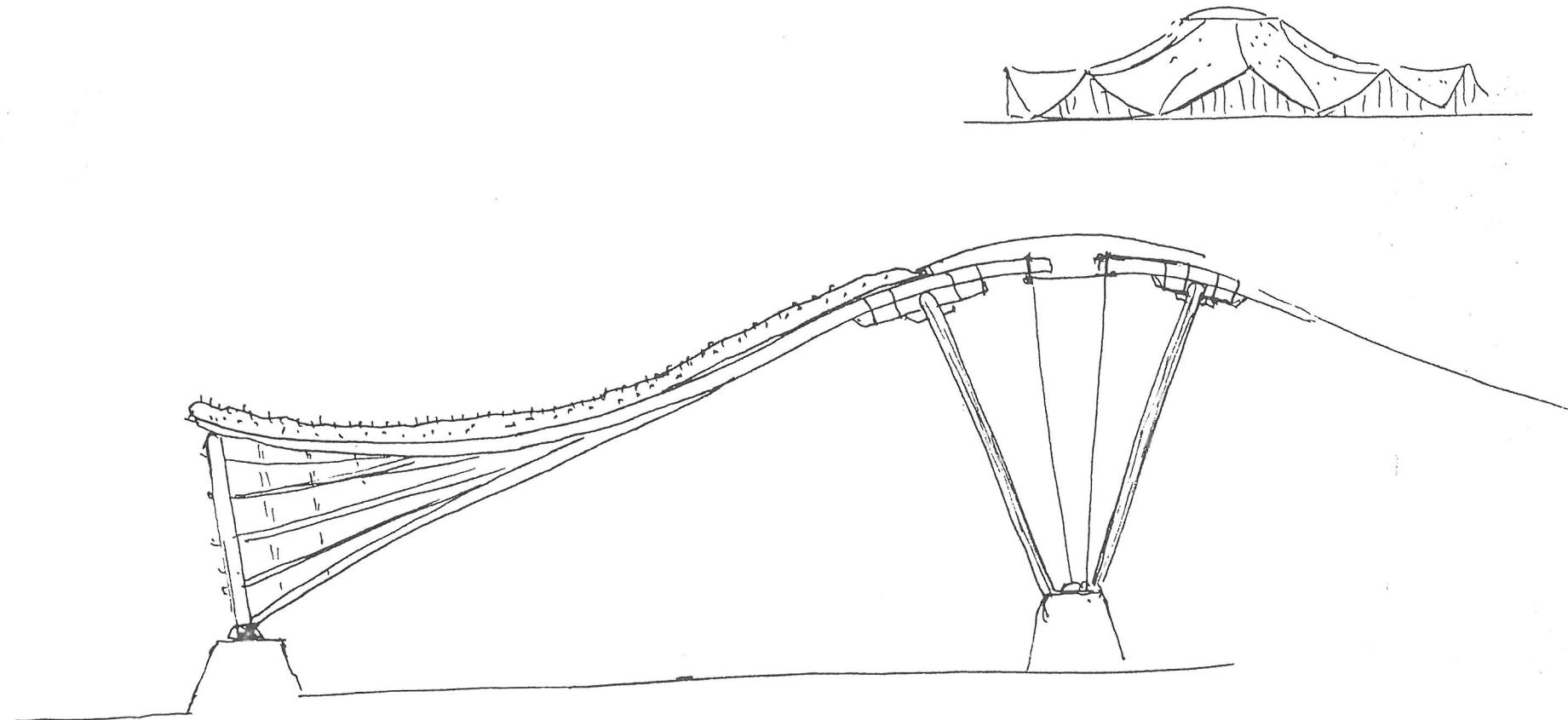




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ILDC 19

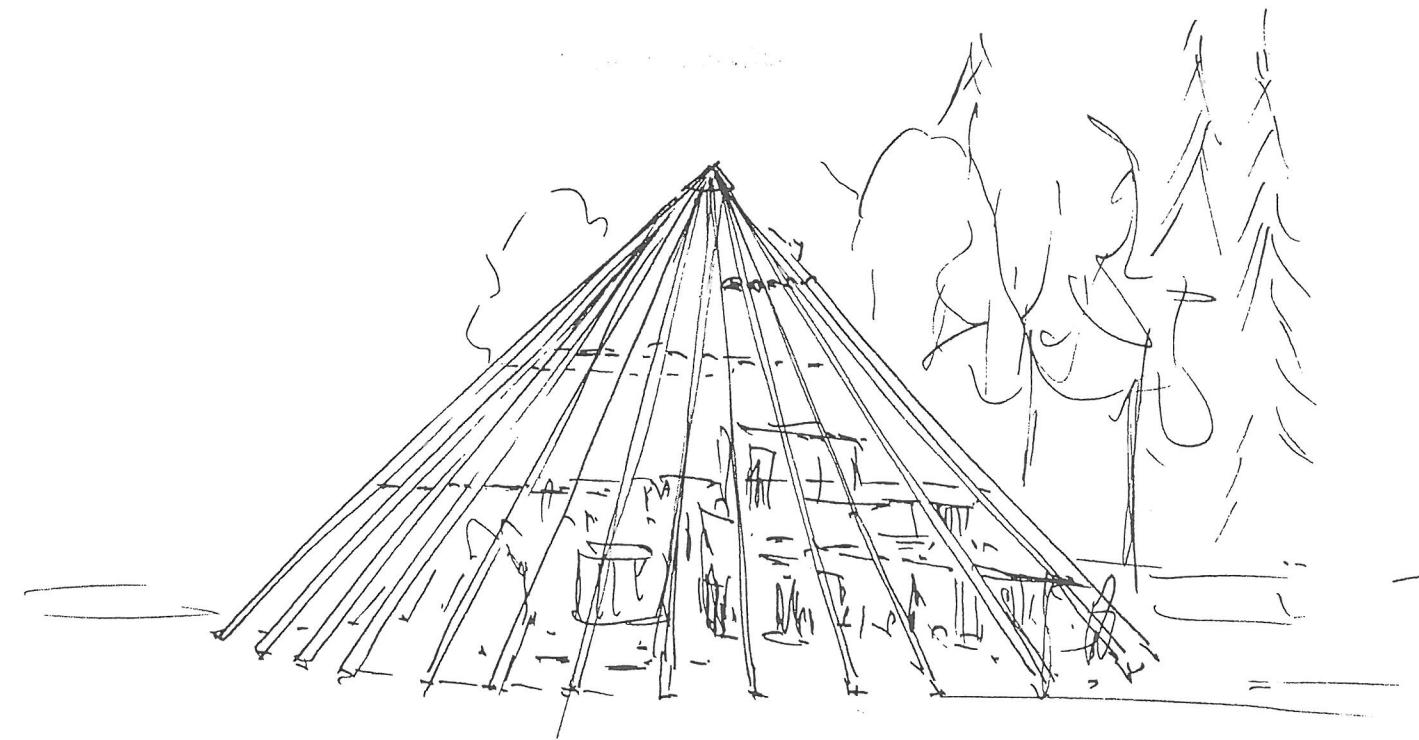
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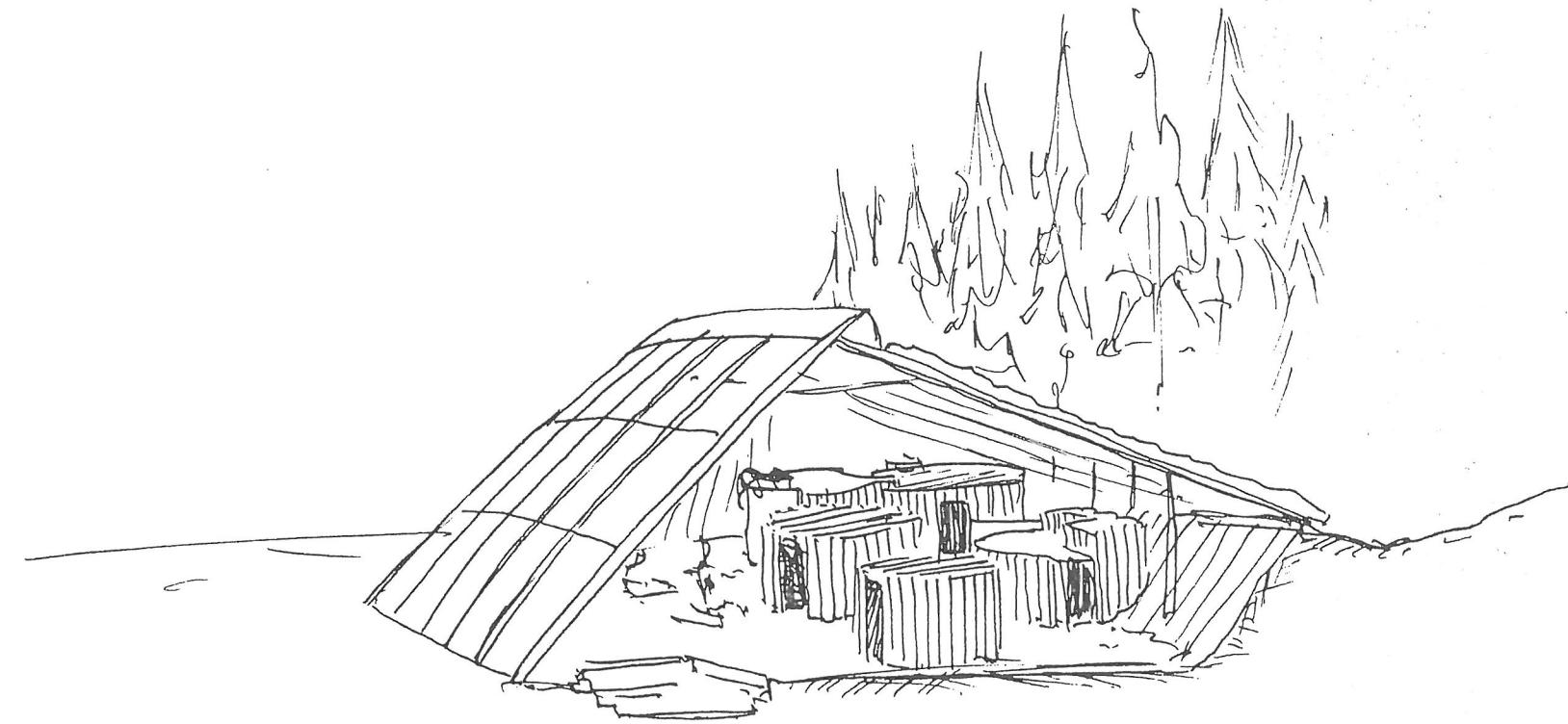
ATELIER FREI OTTO WARMBRÖNN - 7250 LEONBERG 7 Ber ALDO 19 07152 - 41084 (43908)

## SPECIAL HOUSE TYPES

ATELIER FRÉDÉRIC  
WARMBRONN - 7250 LEONBERG 7  
Berc LDC 19 07152 - 41084 (4390)



ATELIER FREI OTTO WARMBRÖNN - 7250 LEONBERG 7 BEZIRK 07152 - 41084 (43900)



ATCLIER FRCI OT WARMBRONN - 7250 LEONBERG 7 BERN 'LDC 19 07152 - 41084 (43908)

# CARTE MUSE

