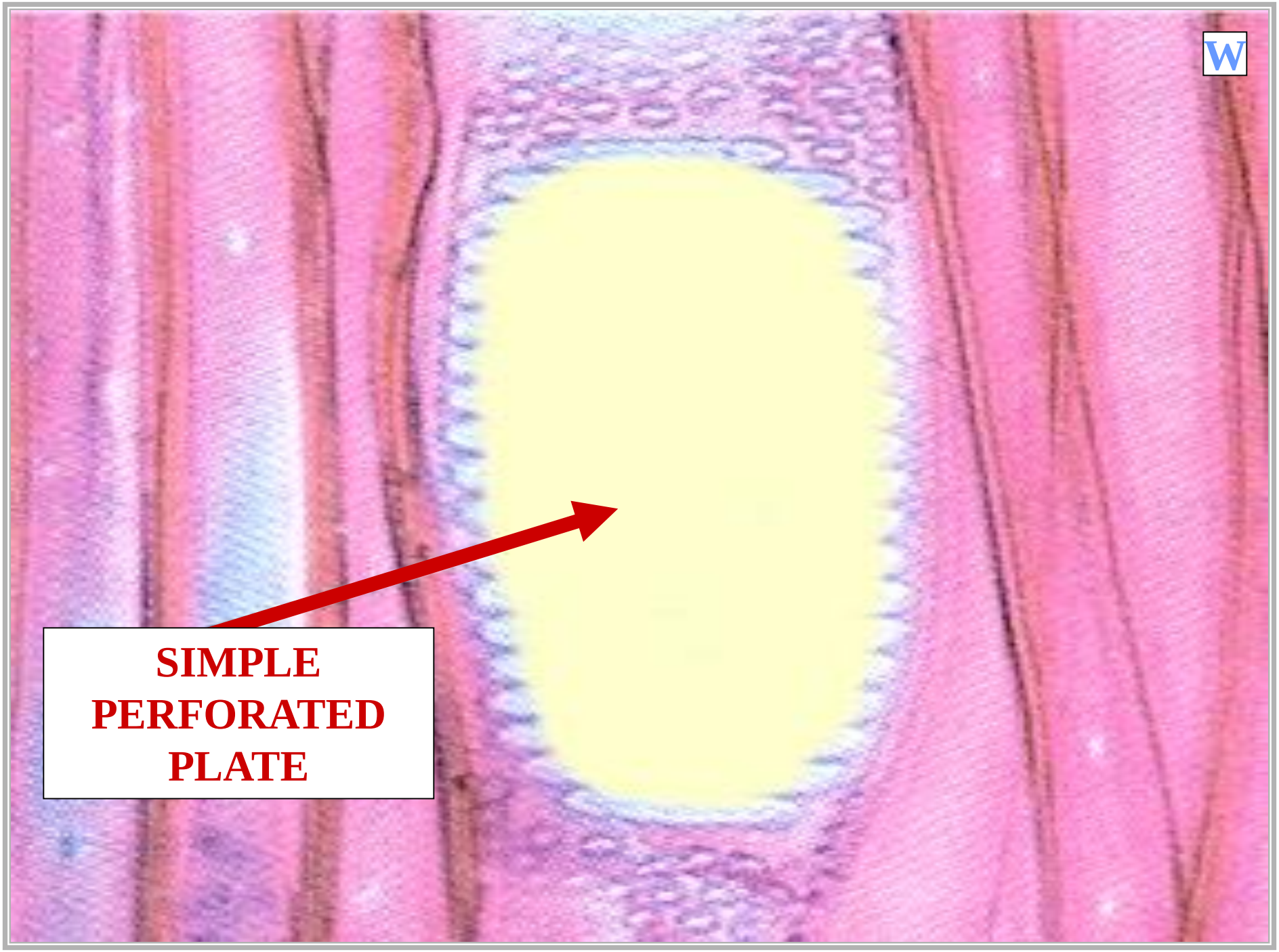
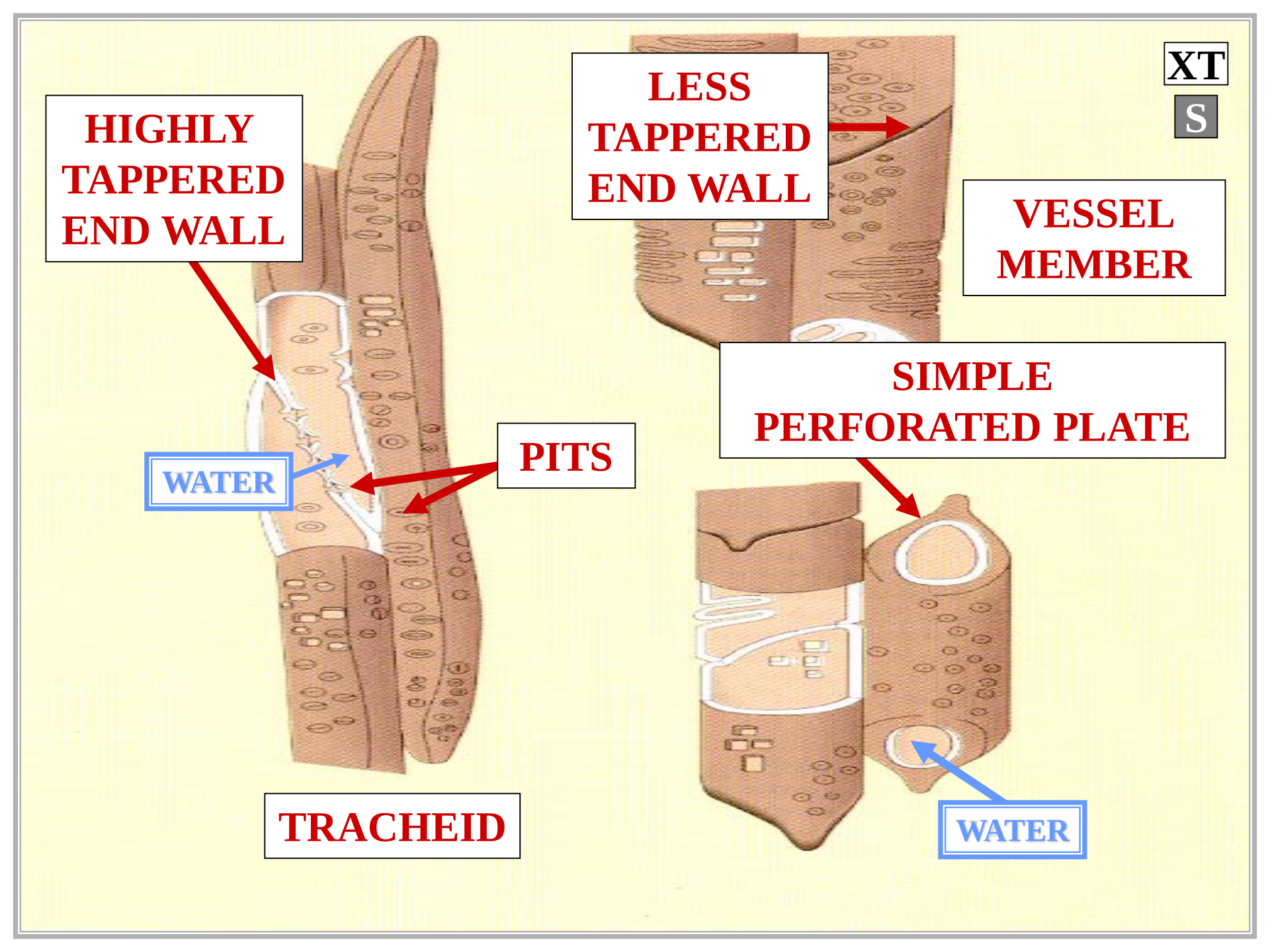
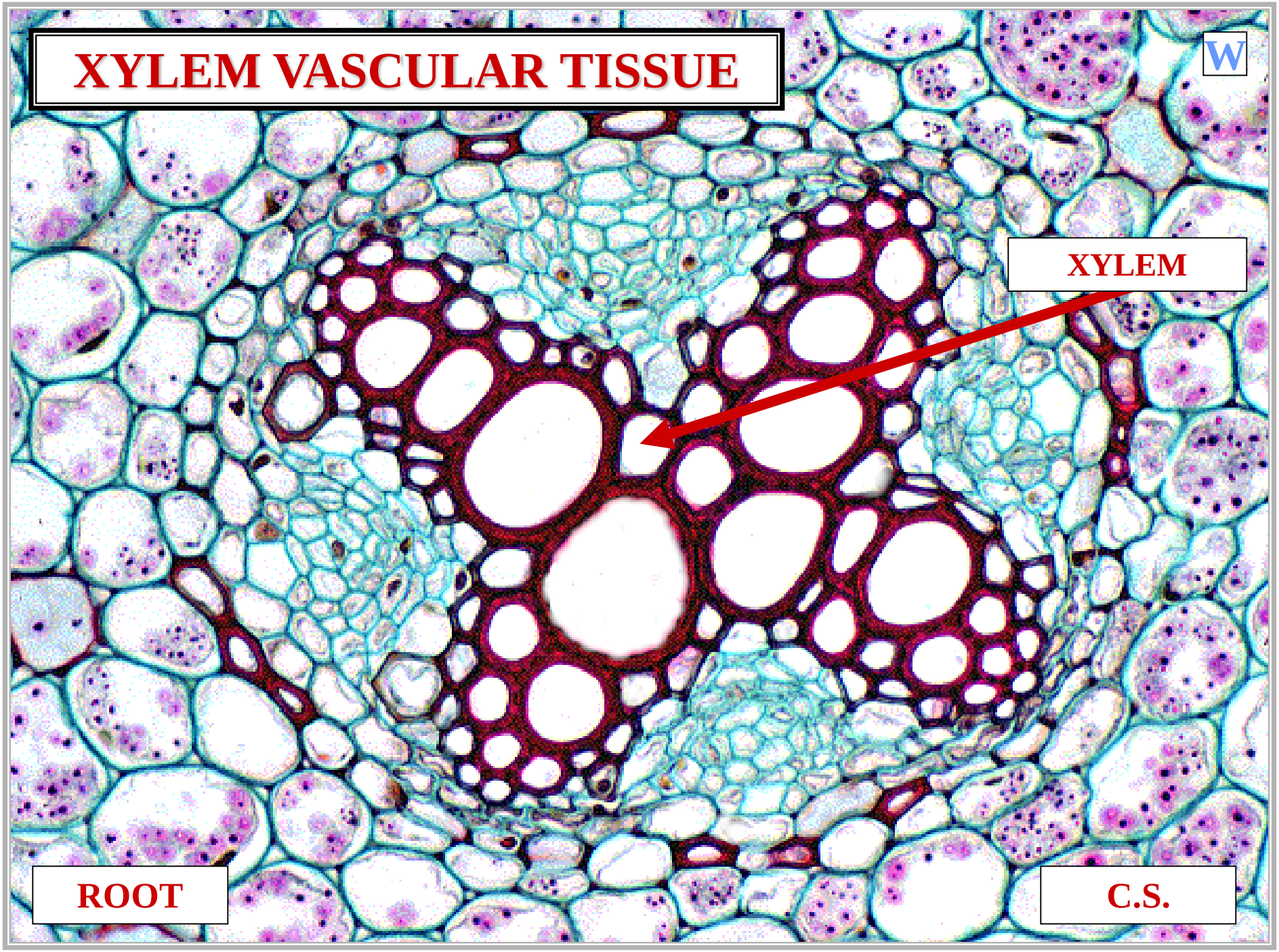
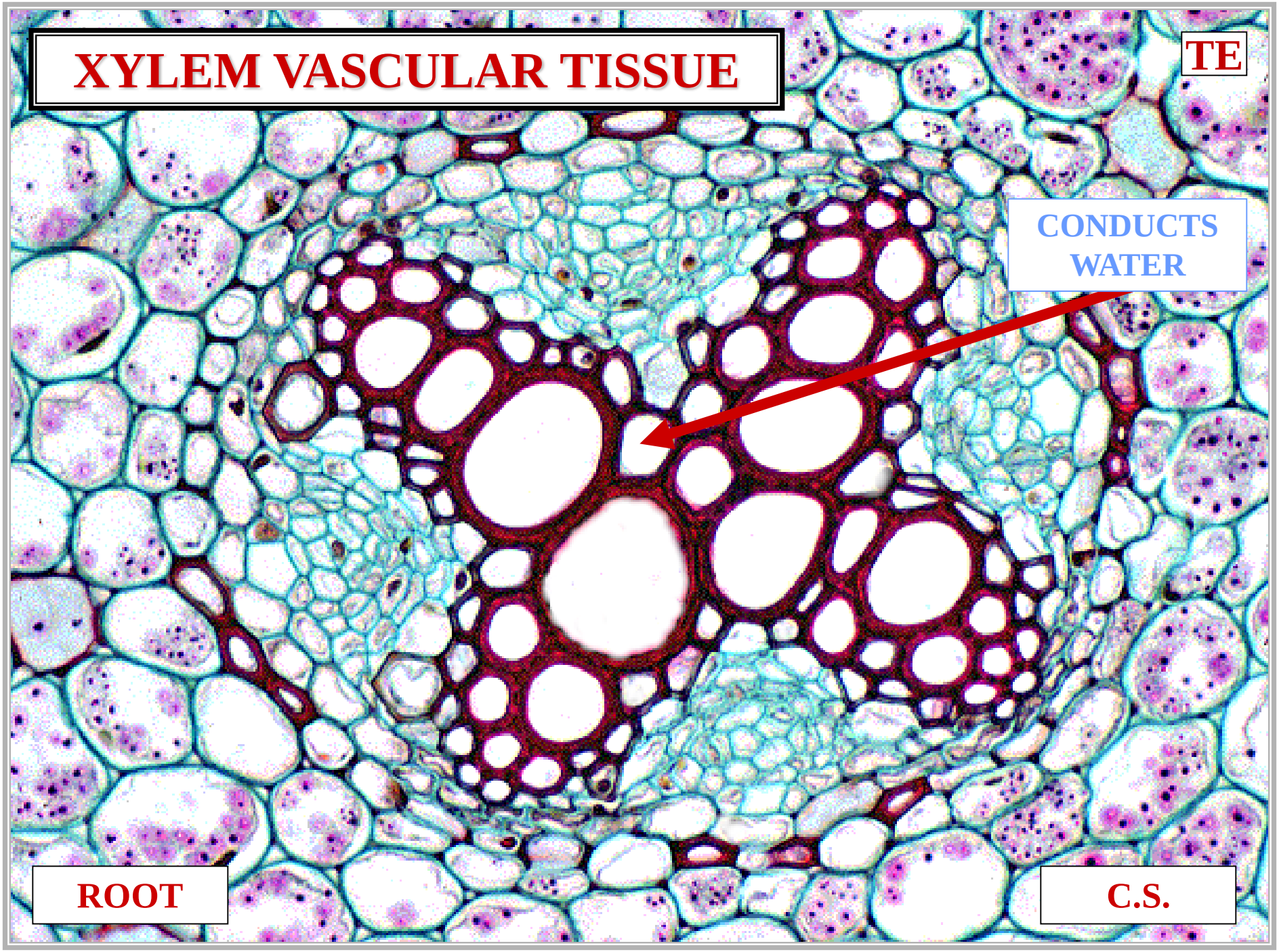

W
SIMPLE PERFORATED PLATE


XT
S
HIGHLY TAPPERED END WALL
LESS TAPPERED END WALL
VESSEL MEMBER
SIMPLE PERFORATED PLATE
WATER
PITS
TRACHEID
WATER

XYLEM TISSUE SUMMARY

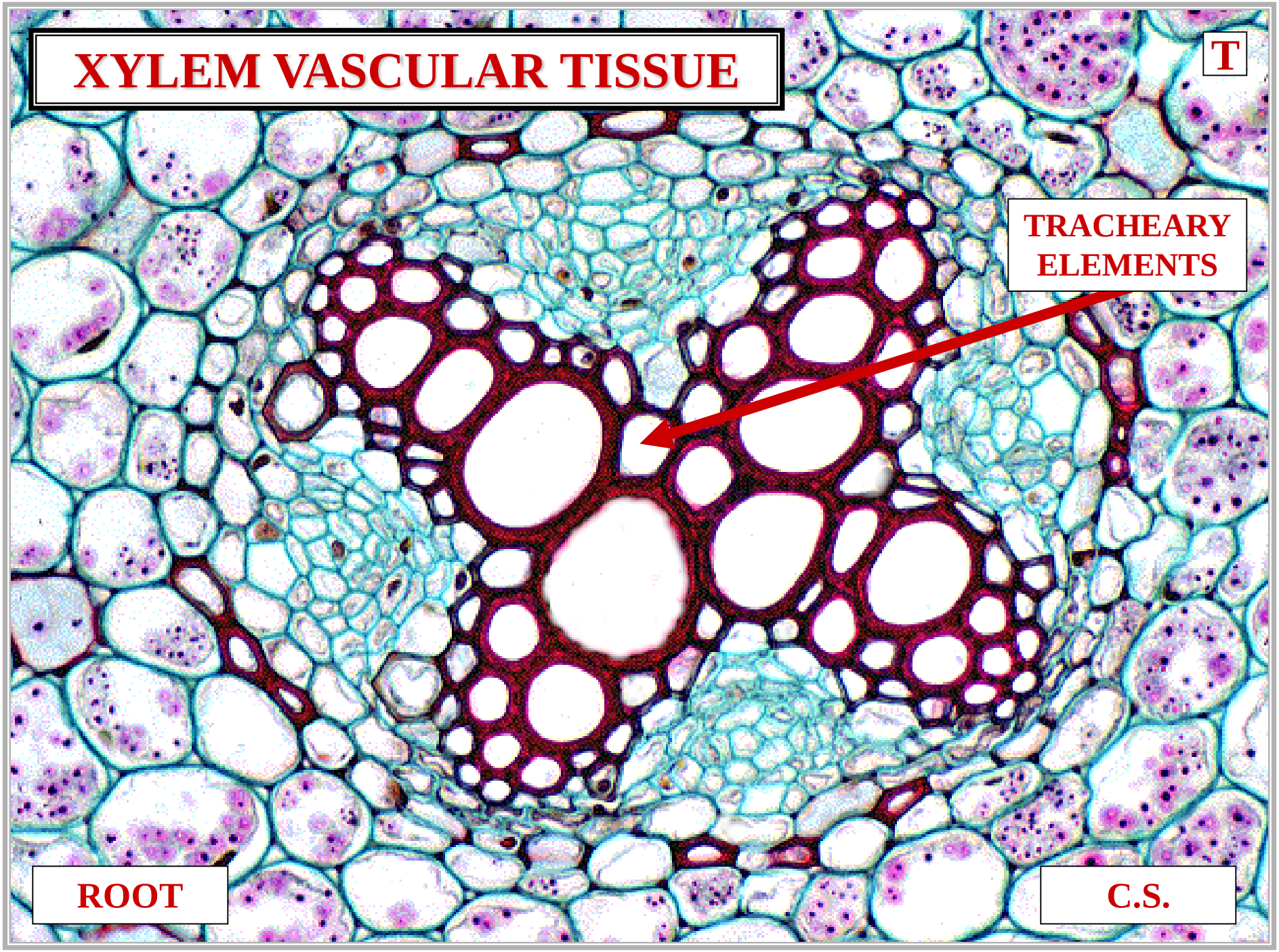
XYLEM VASCULAR TISSUE




XYLEM VASCULAR TISSUE
TE
CONDUCTS WATER
ROOT
C.S.

XYLEM VASCULAR TISSUE

T

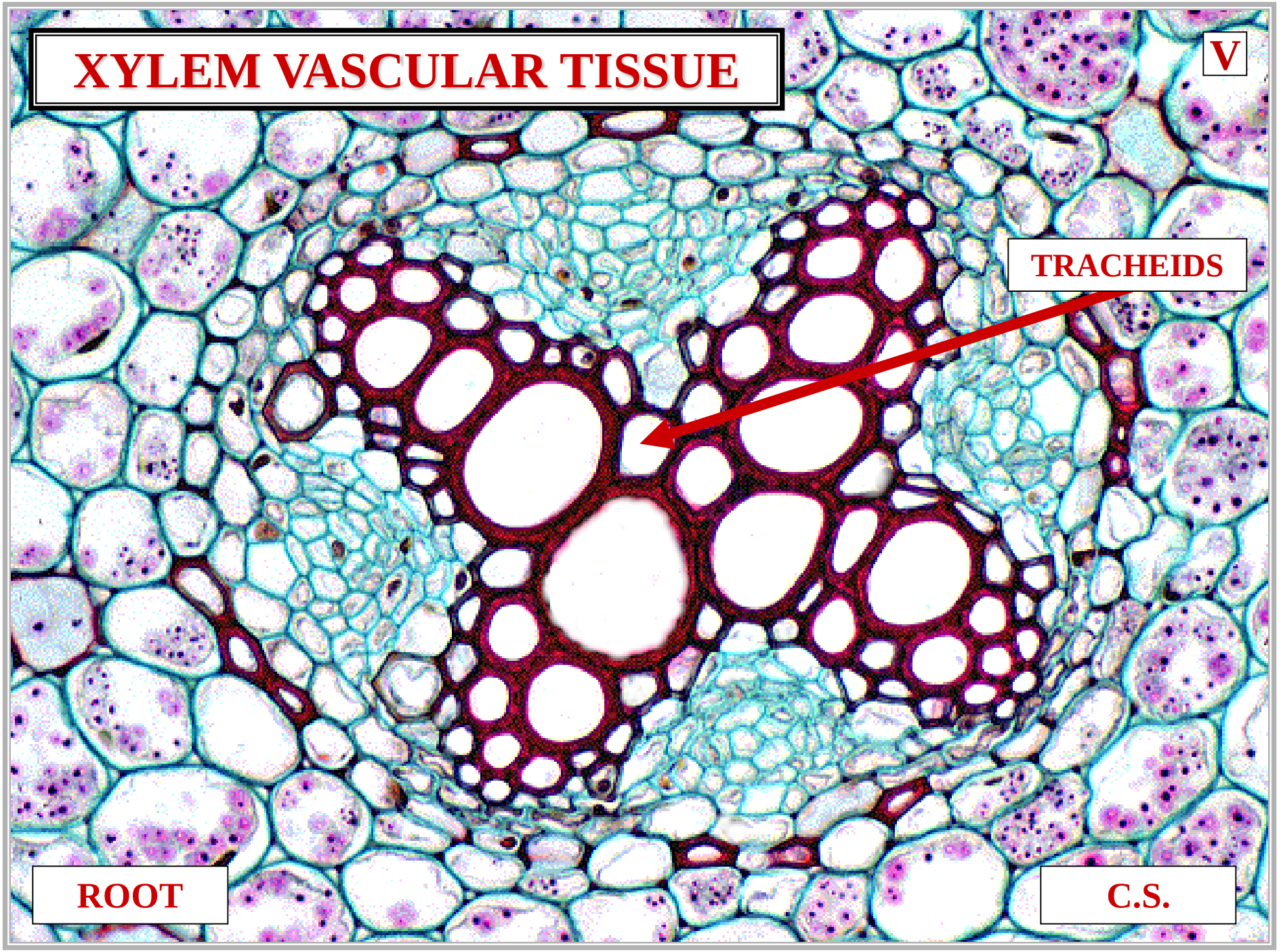


ROOT

C.S.

XYLEM VASCULAR TISSUE

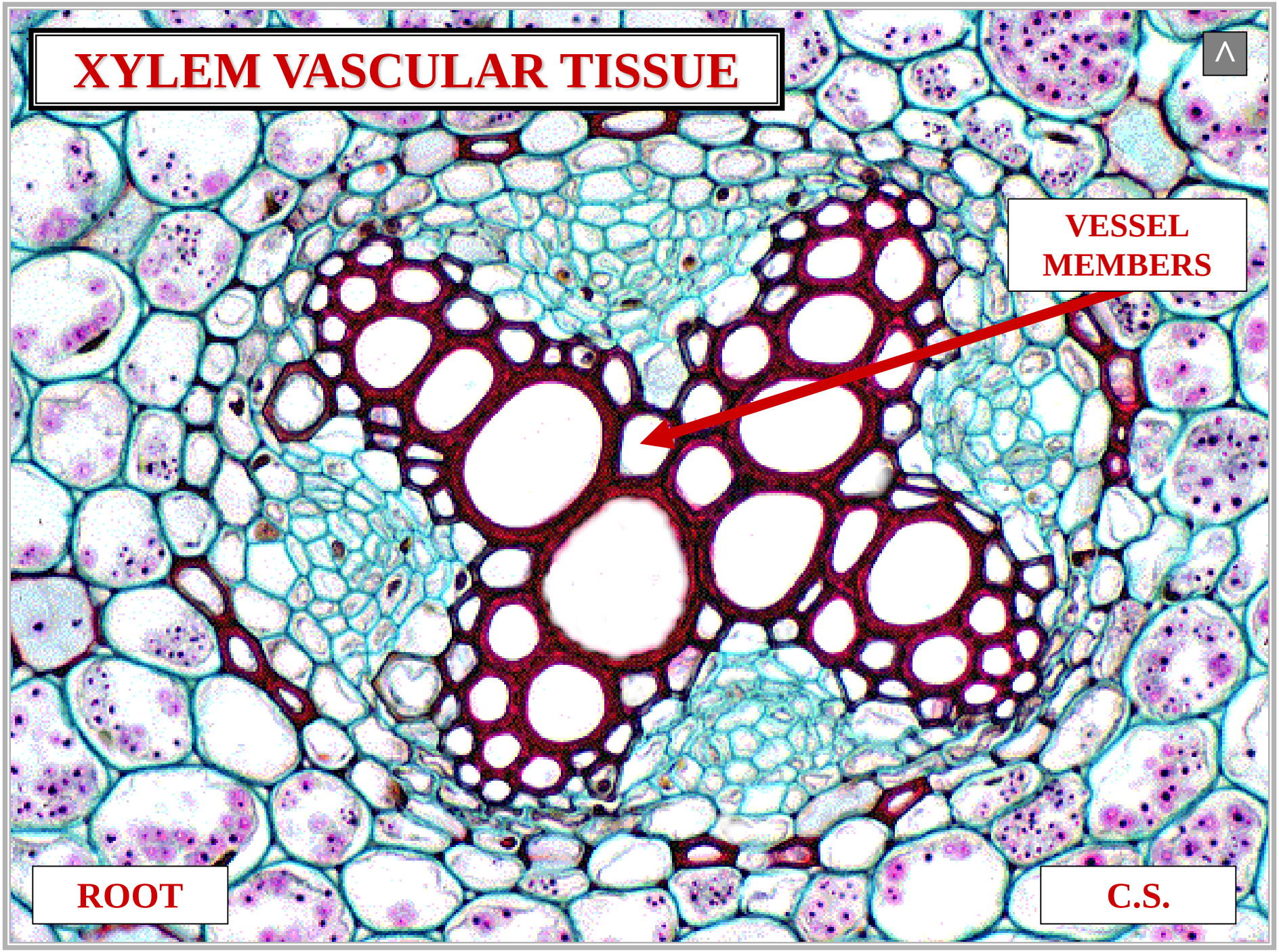
V



ROOT

C.S.

XYLEM VASCULAR TISSUE



P

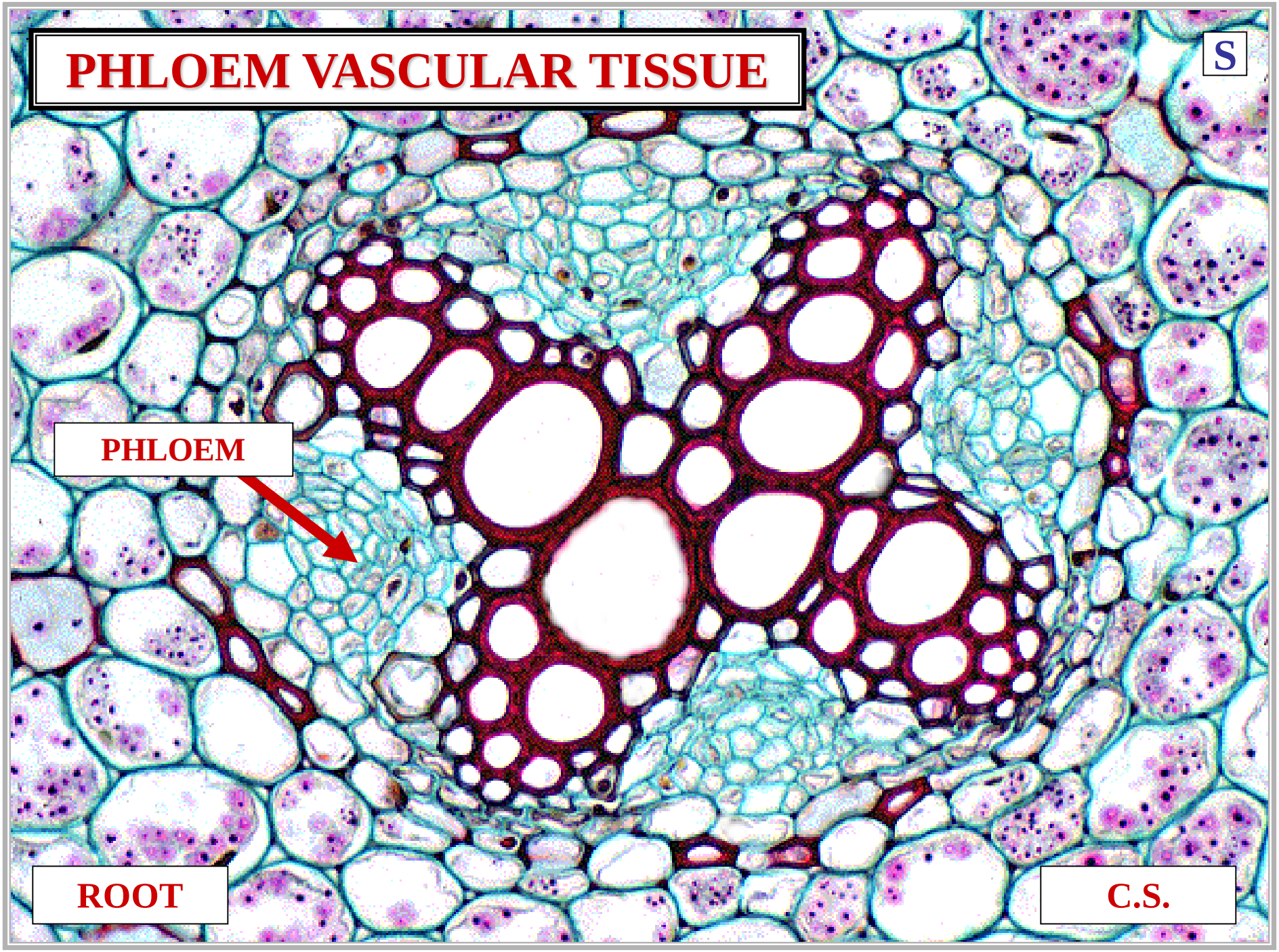
PHLOEM
VASCULAR TISSUE

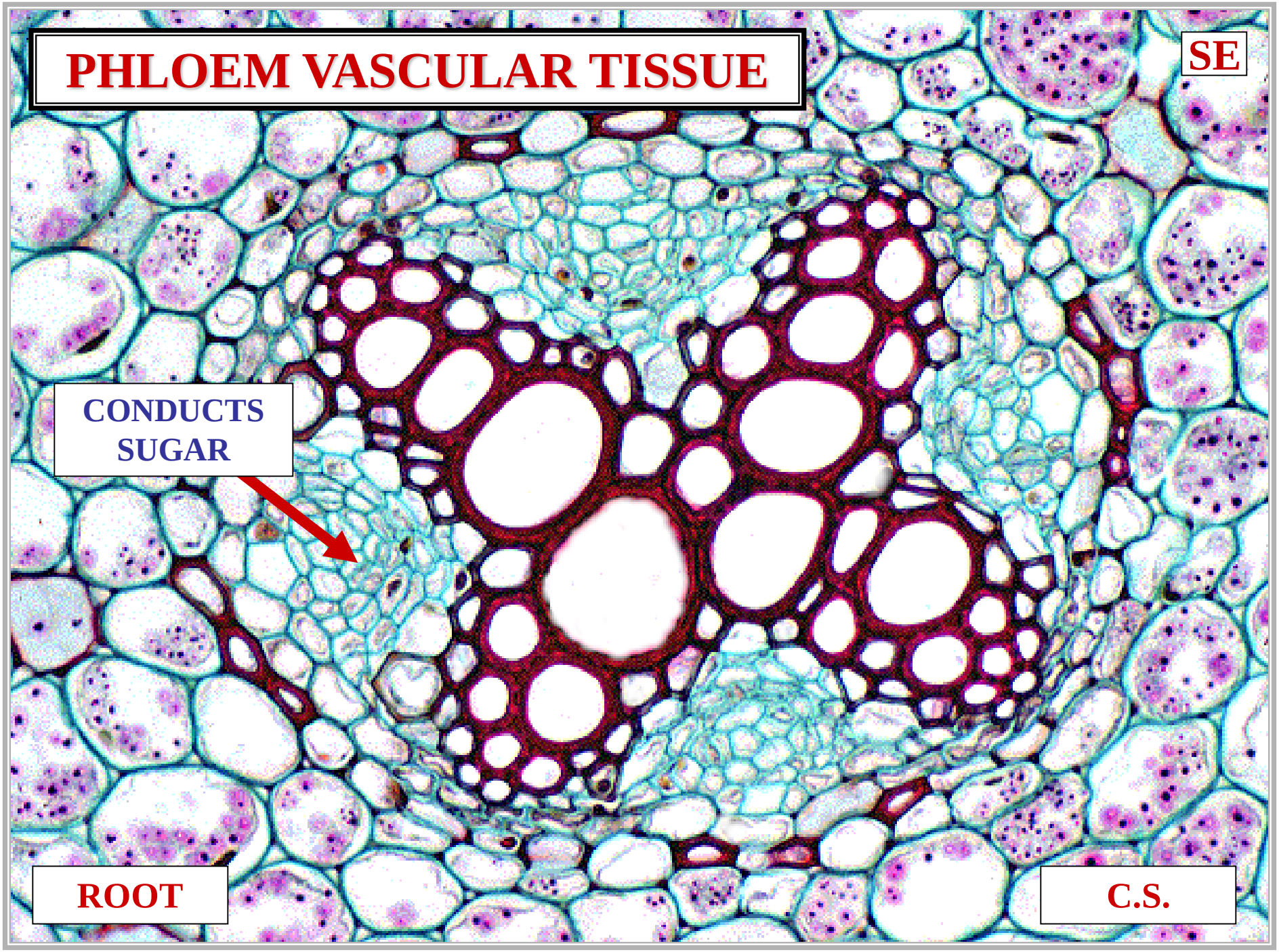
PHLOEM TISSUE

VASCULAR TISSUE
PHLOEM

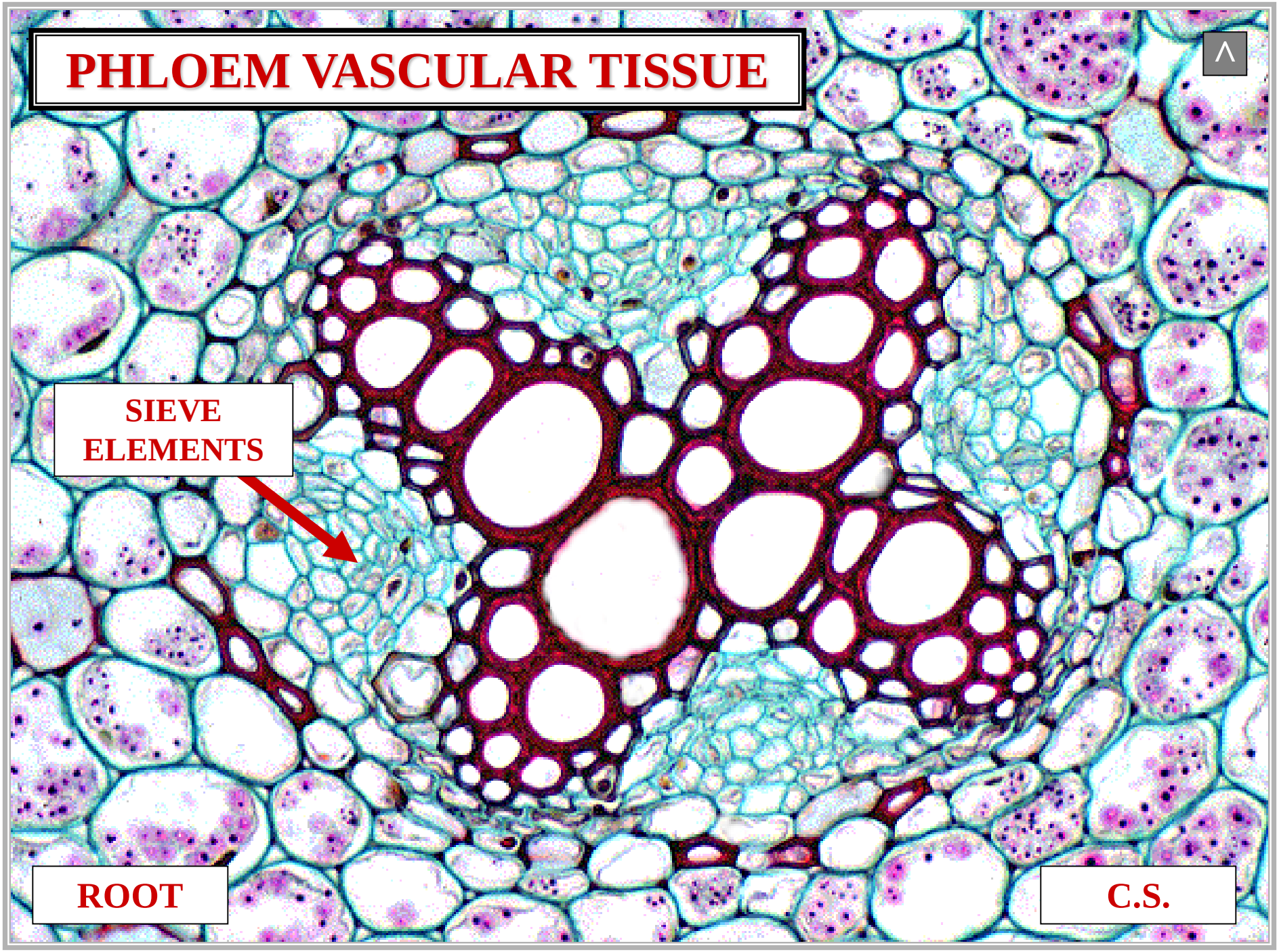
CONDUCTS SUGAR

VASCULAR TISSUE
PHLOEM


PHLOEM VASCULAR TISSUE
S
PHLOEM
ROOT
C.S.


PHLOEM VASCULAR TISSUE
SE
CONDUCTS SUGAR
ROOT
C.S.

PHLOEM VASCULAR TISSUE



SIEVE ELEMENTS

SIEVE ELEMENTS

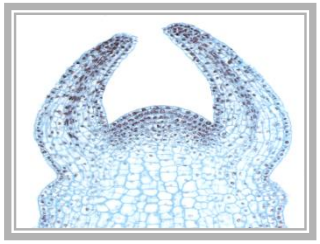
PHLOEM
SIEVE ELEMENTS

SUGAR CONDUCTING CELLS

PHLOEM
SIEVE ELEMENTS

STEM MERISTEM

C



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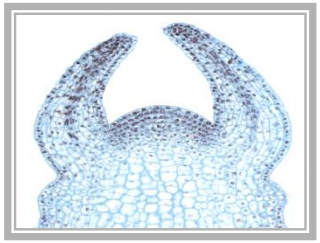
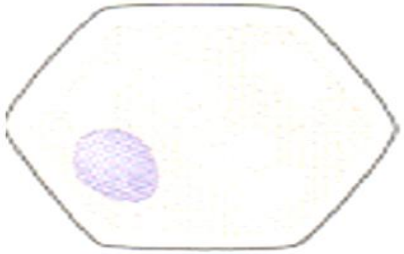
STEM MERISTEM

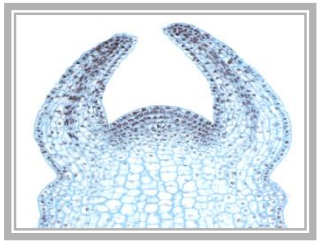


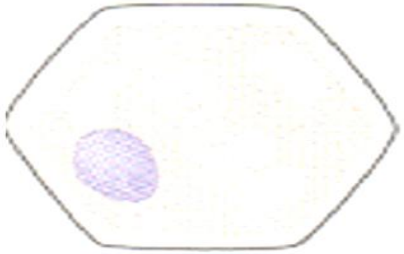


CELL INITIAL

PARENCHYMA BASIC PLANT CELL

STEM MERISTEM





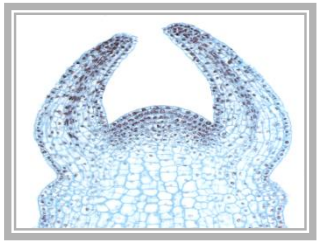
CELL INITIAL

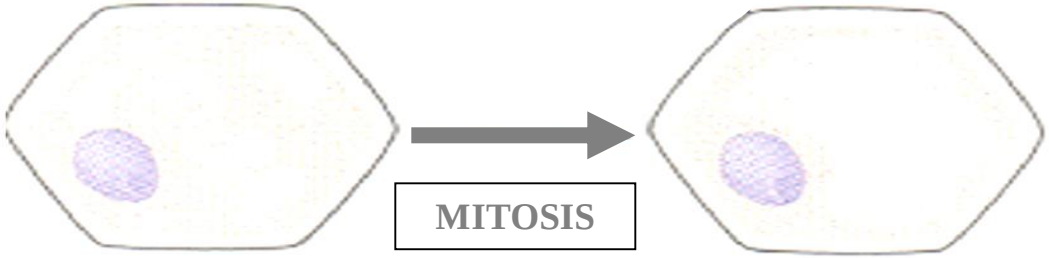
PARENCHYMA CELL

PARENCHYMA BASIC PLANT CELL

D

STEM MERISTEM





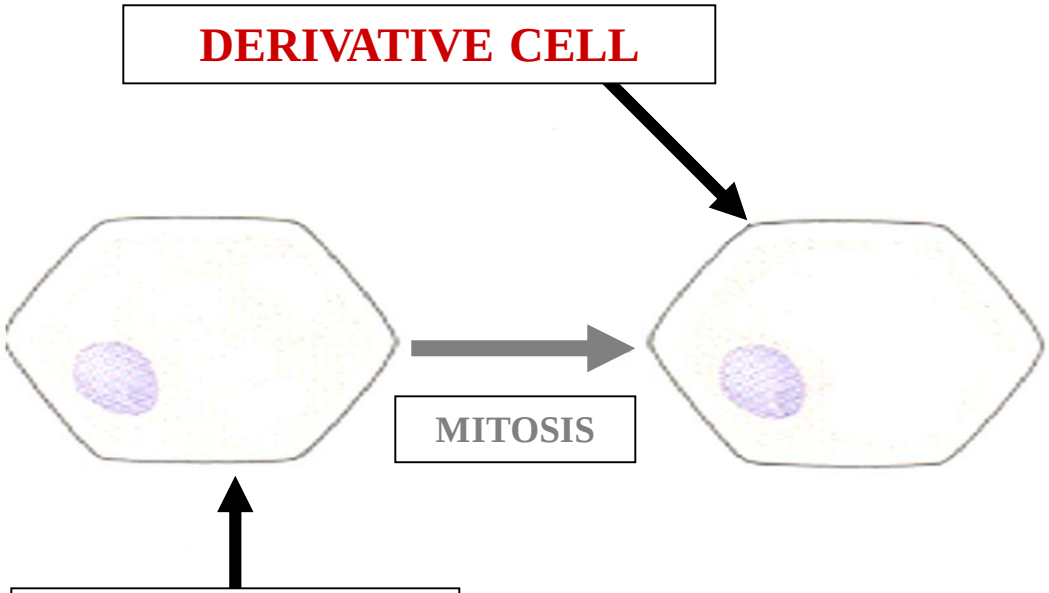
CELL INITIAL

PARENCHYMA CELL

PARENCHYMA BASIC PLANT CELL

P

STEM MERISTEM



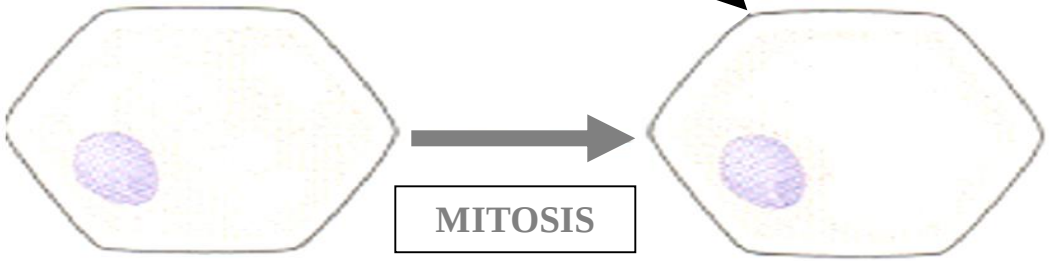
PARENCHYMA BASIC PLANT CELL

STEM MERISTEM

T

DERIVATIVE CELL

PARENCHYMA CELL



MITOSIS

CELL INITIAL

PARENCHYMA CELL

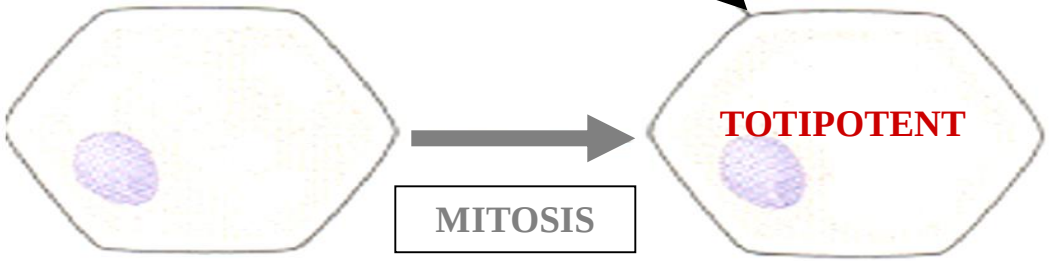
PARENCHYMA BASIC PLANT CELL

L

STEM MERISTEM

DERIVATIVE CELL

PARENCHYMA CELL



CELL INITIAL

PARENCHYMA CELL

PARENCHYMA BASIC PLANT CELL

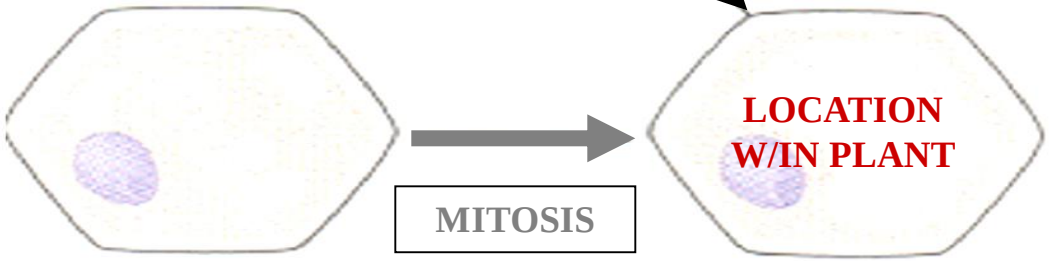
MERISTEM DERIVATIVE CAN POTENTALLY DIFFERENTIATE INTO ANY PLANT CELL TYPE

H

STEM MERISTEM

DERIVATIVE CELL

PARENCHYMA CELL



CELL INITIAL

PARENCHYMA CELL

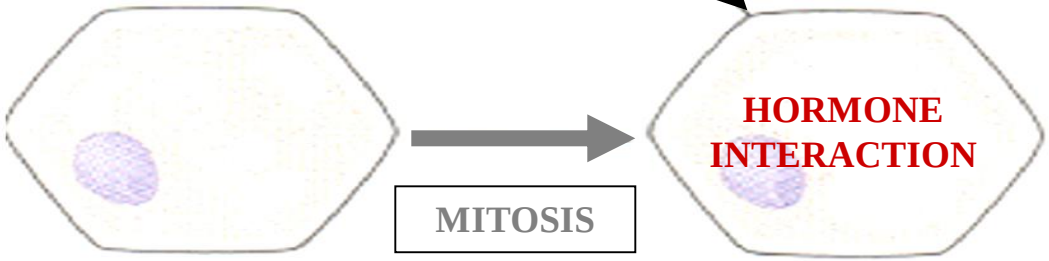
PARENCHYMA BASIC PLANT CELL

D

STEM MERISTEM

DERIVATIVE CELL

PARENCHYMA CELL



CELL INITIAL

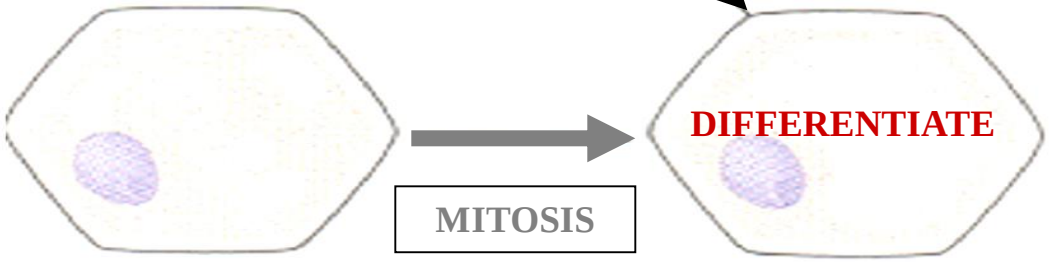
PARENCHYMA CELL

PARENCHYMA BASIC PLANT CELL

STEM MERISTEM

DERIVATIVE CELL

PARENCHYMA CELL



CELL INITIAL

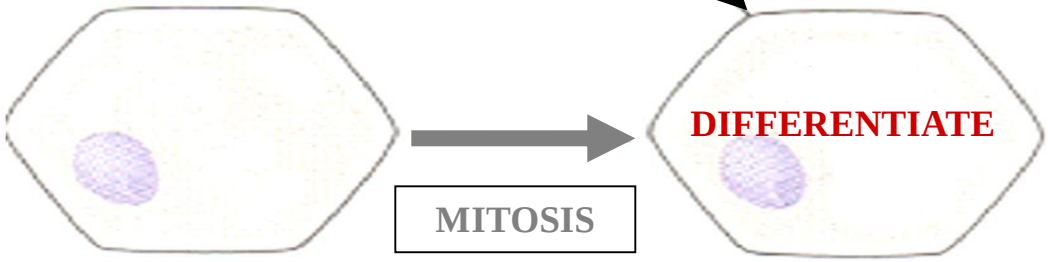
PARENCHYMA CELL

PARENCHYMA BASIC PLANT CELL

STEM MERISTEM

DERIVATIVE CELL

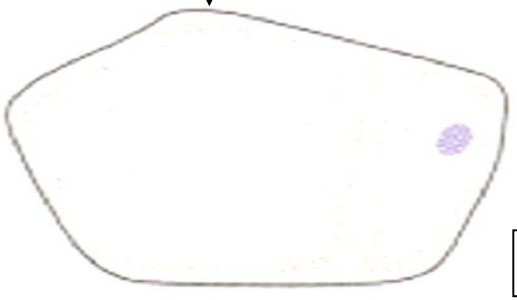
PARENCHYMA CELL



MITOSIS

CELL INITIAL

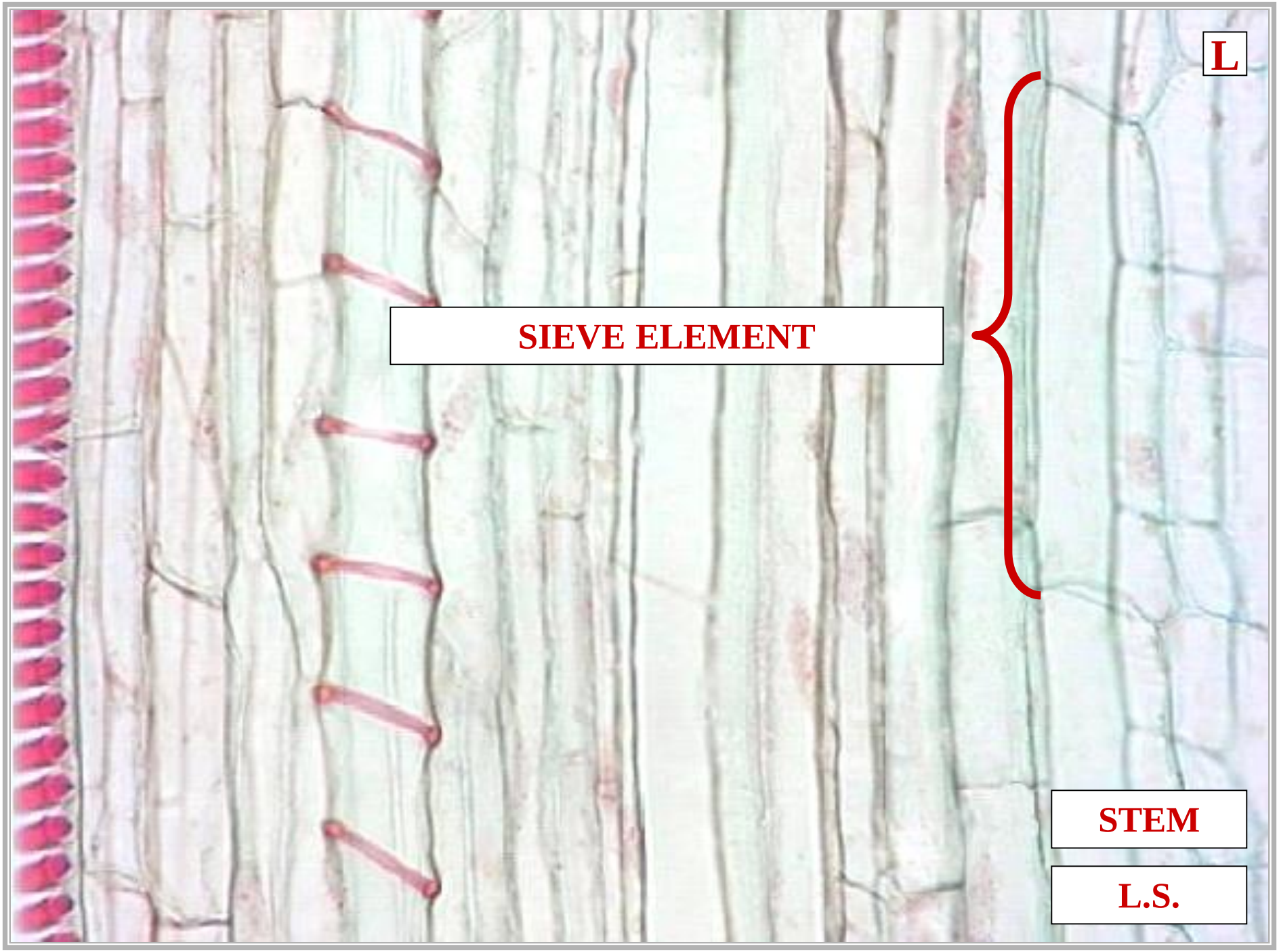
PARENCHYMA CELL

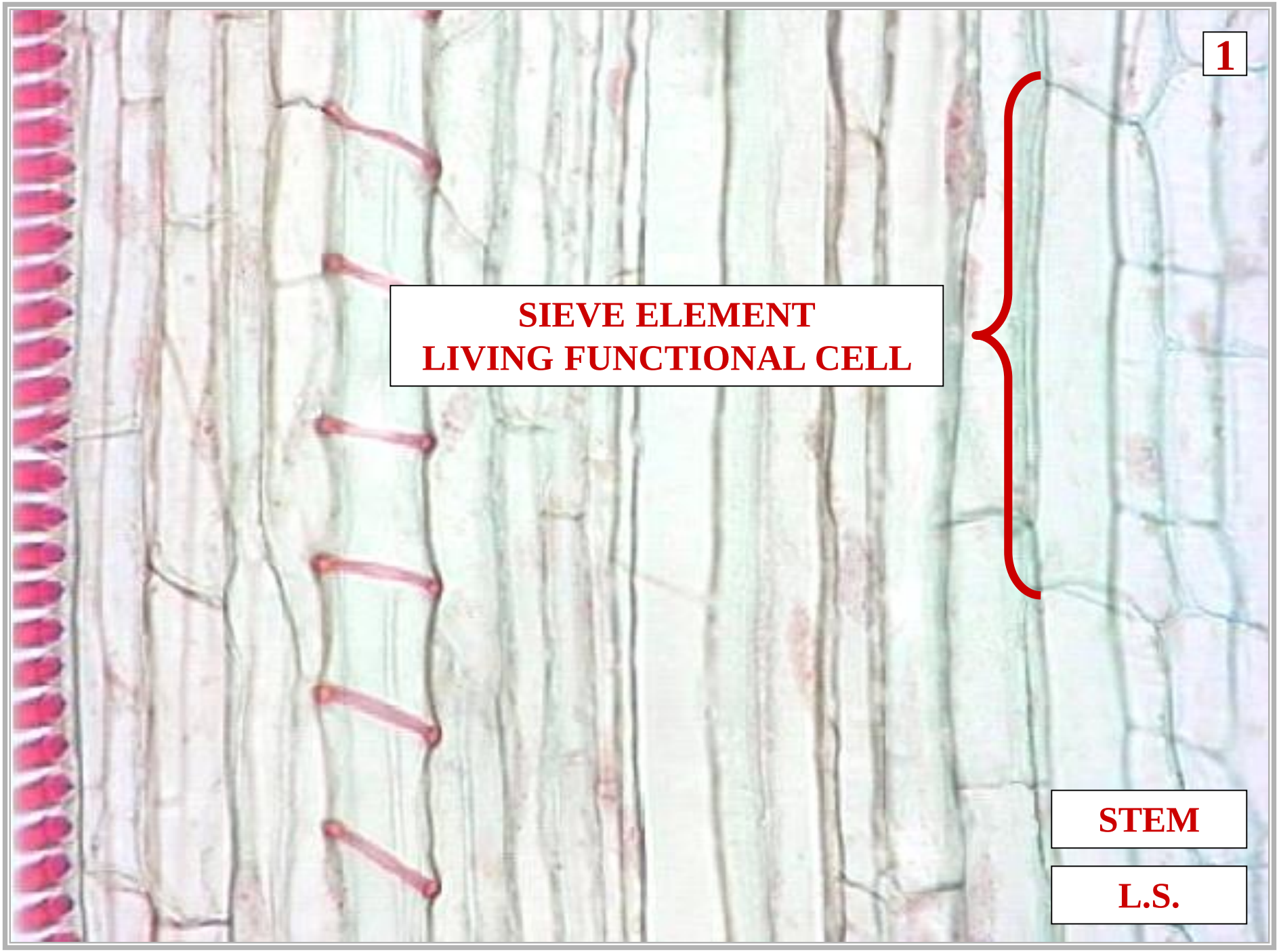


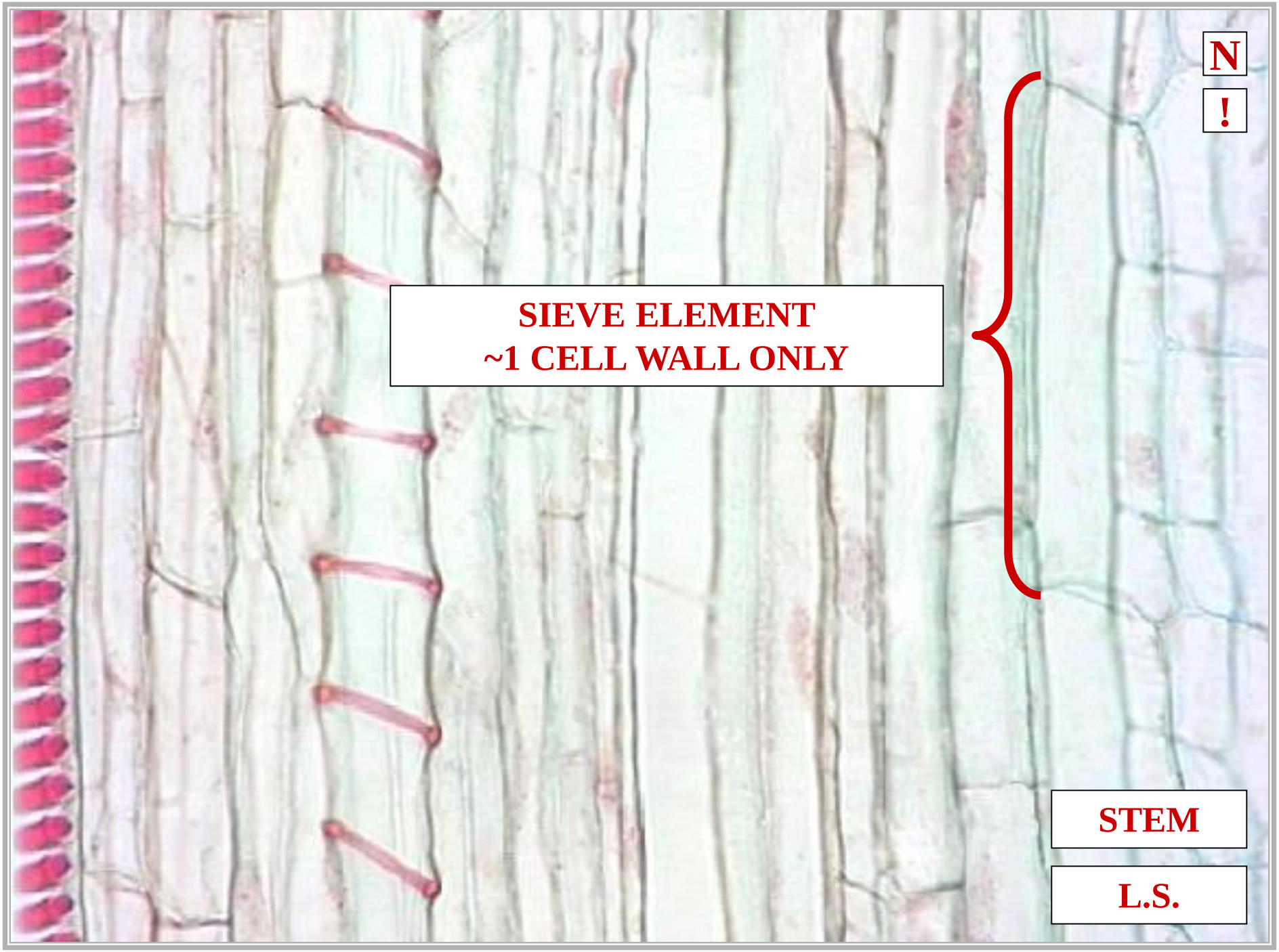
SIEVE ELEMENT

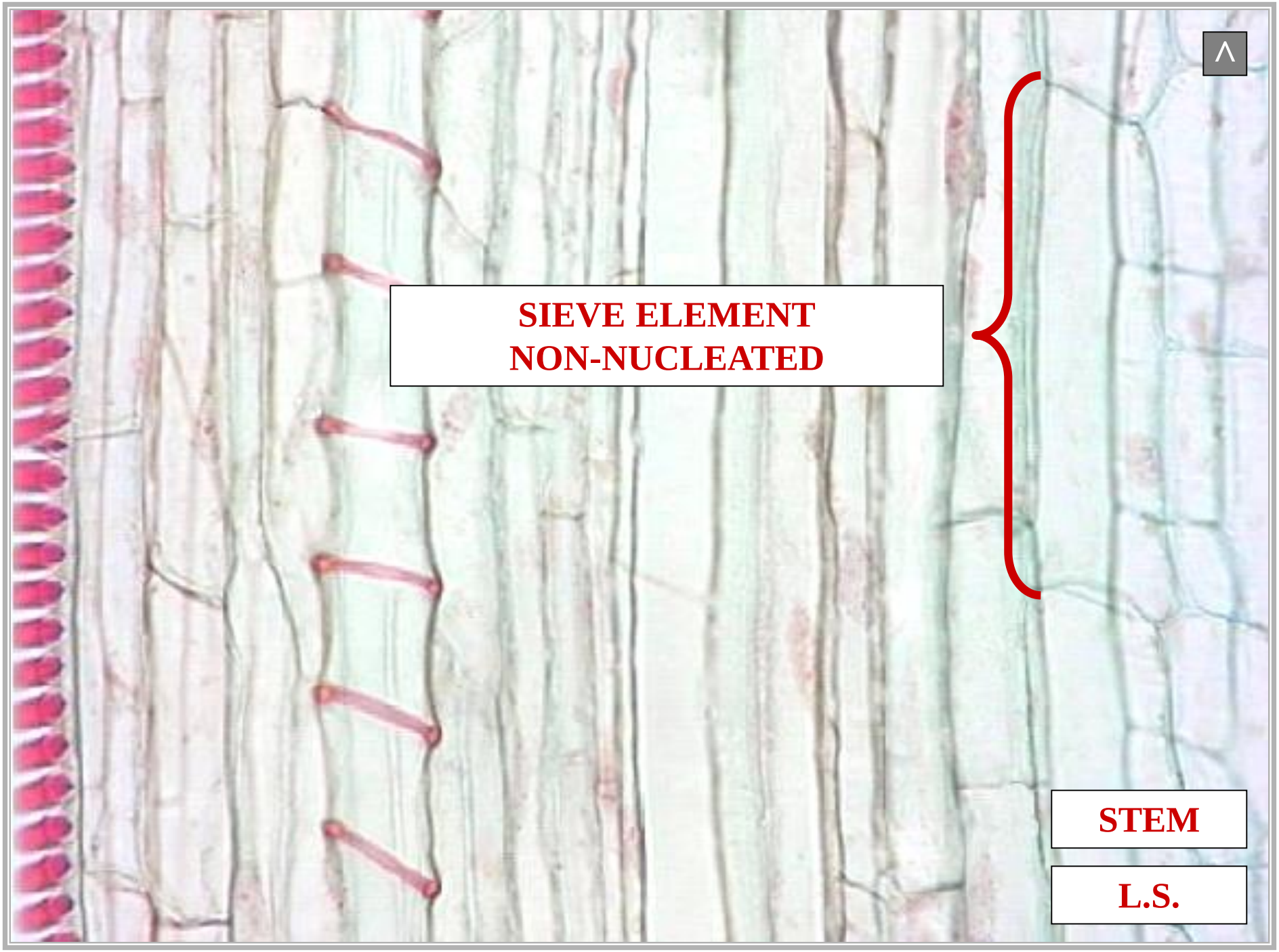
PARENCHYMA BASIC PLANT CELL

SIEVE ELEMENT CHARACTERS


L
SIEVE ELEMENT
STEM
L.S.


1
SIEVE ELEMENT
LIVING FUNCTIONAL CELL
STEM
L.S.


N
!
SIEVE ELEMENT
~1 CELL WALL ONLY
STEM
L.S.


SIEVE ELEMENT
NON-NUCLEATED
STEM
L.S.

SIEVE ELEMENT TYPES

SIEVE ELEMENT TYPES

SIEVE CELLS

SIEVE ELEMENT TYPES

SIEVE ELEMENT TYPES

S

SIEVE CELLS

SIEVE MEMBERS

SIEVE ELEMENT TYPES

SIEVE CELL

SIEVE ELEMENT
SIEVE CELL

KNOWN
PTERIDOPHYTES & GYMNOSPERMS

SIEVE ELEMENT
SIEVE CELL

SIEVE ELEMENT
SIEVE CELL

KNOWN
PTERIDOPHYTES & GYMNOSPERMS

END WALL WITH SIEVE AREA

SIEVE ELEMENT
SIEVE CELL

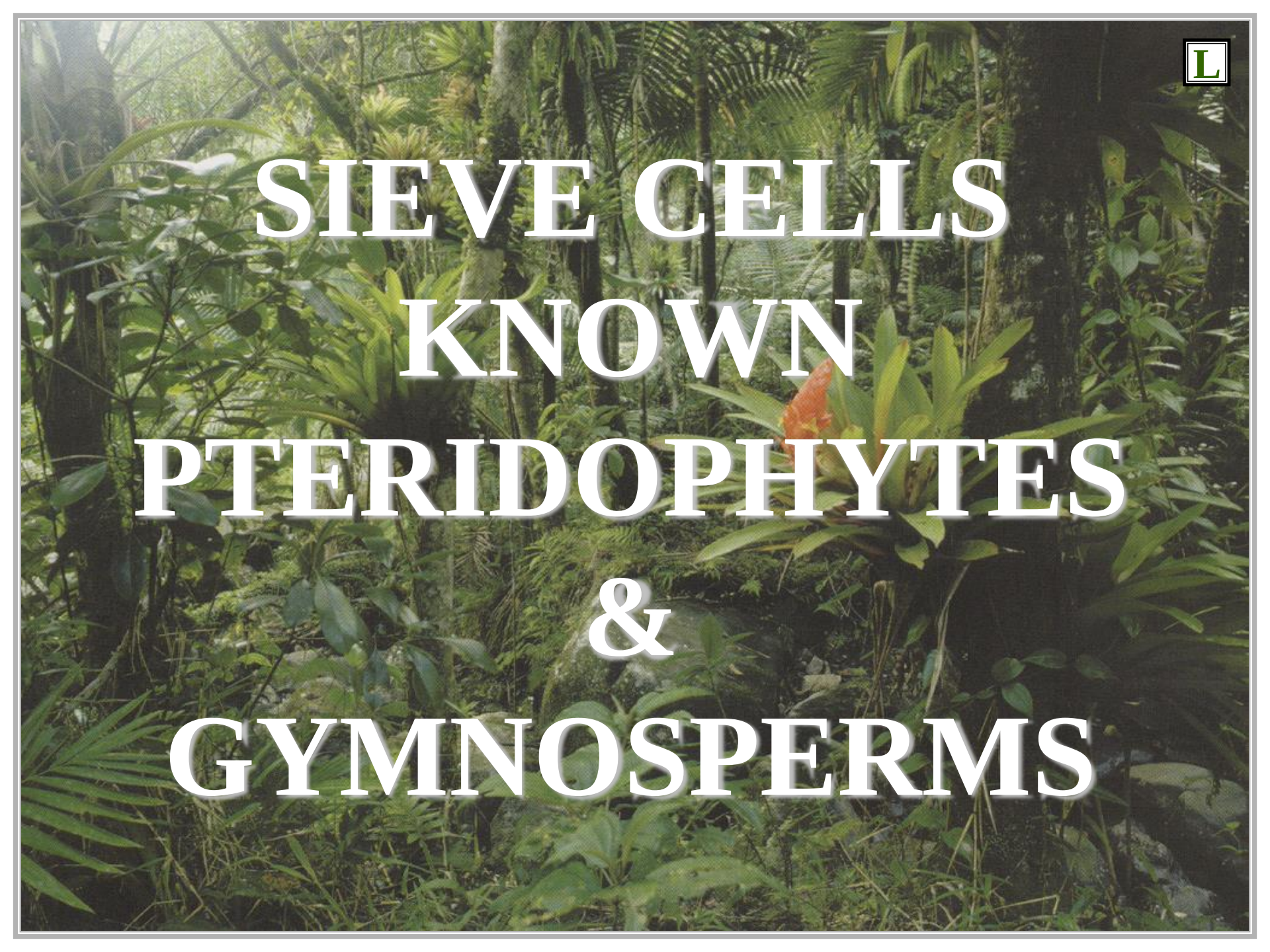
SIEVE ELEMENT
SIEVE CELL

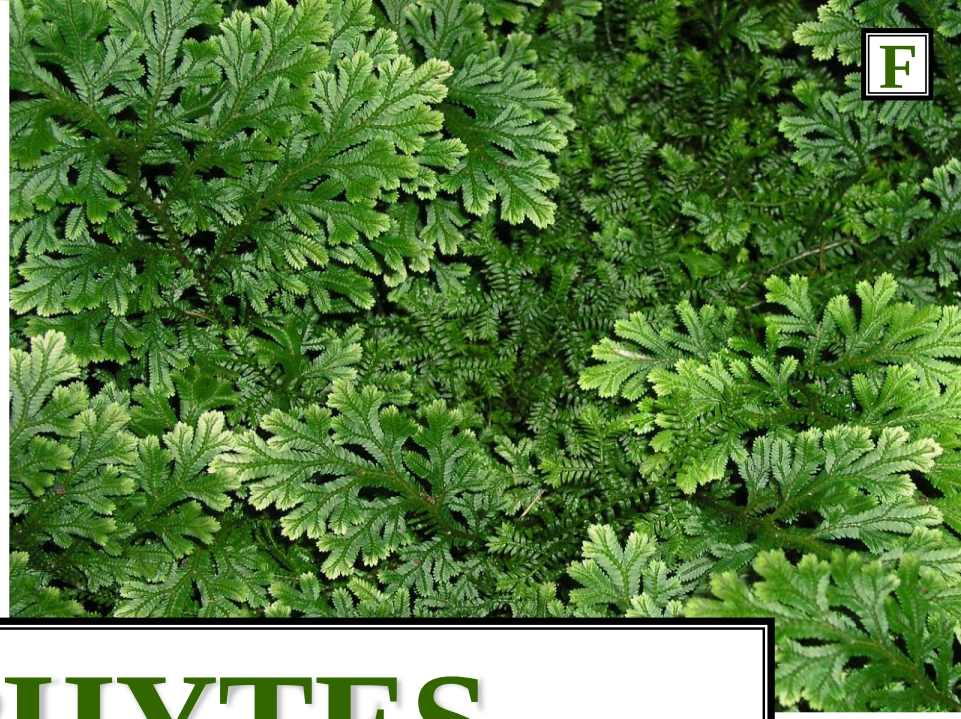
KNOWN
PTERIDOPHYTES & GYMNOSPERMS

END WALL WITH SIEVE AREA

SMALL PORES

SIEVE ELEMENT
SIEVE CELL

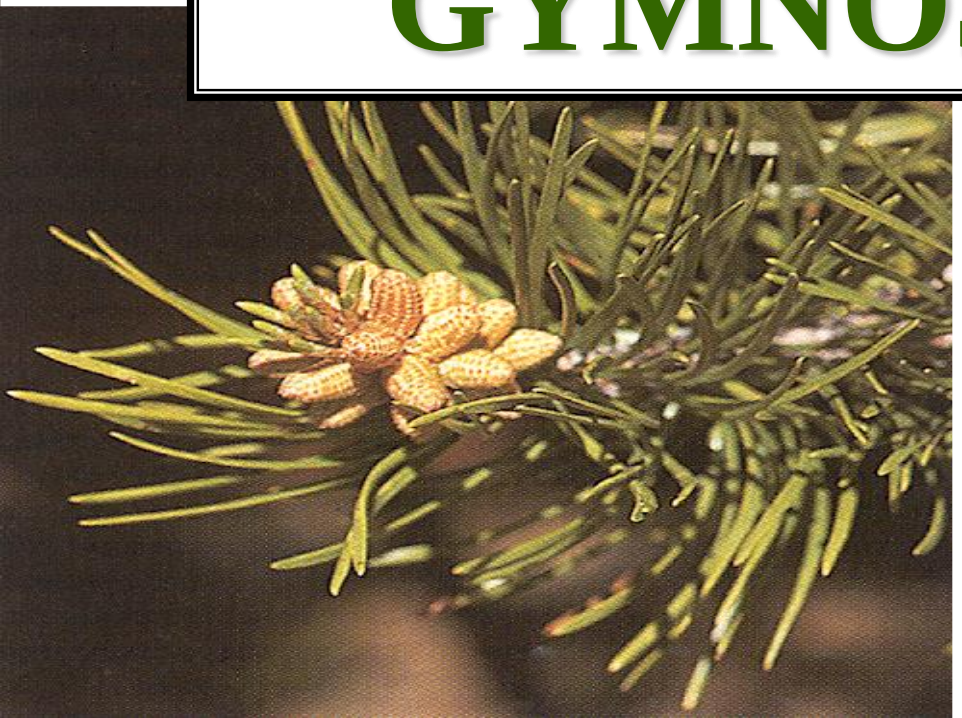

SIEVE CELLS
KNOWN
PTERIDOPHYTES
&
GYMNOSPERMS

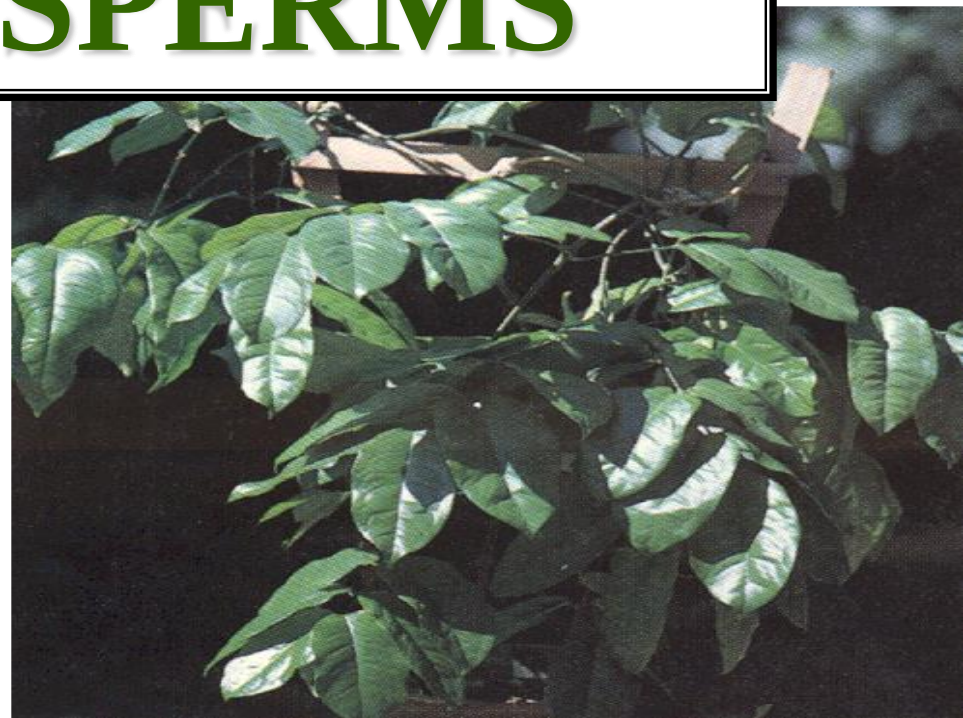


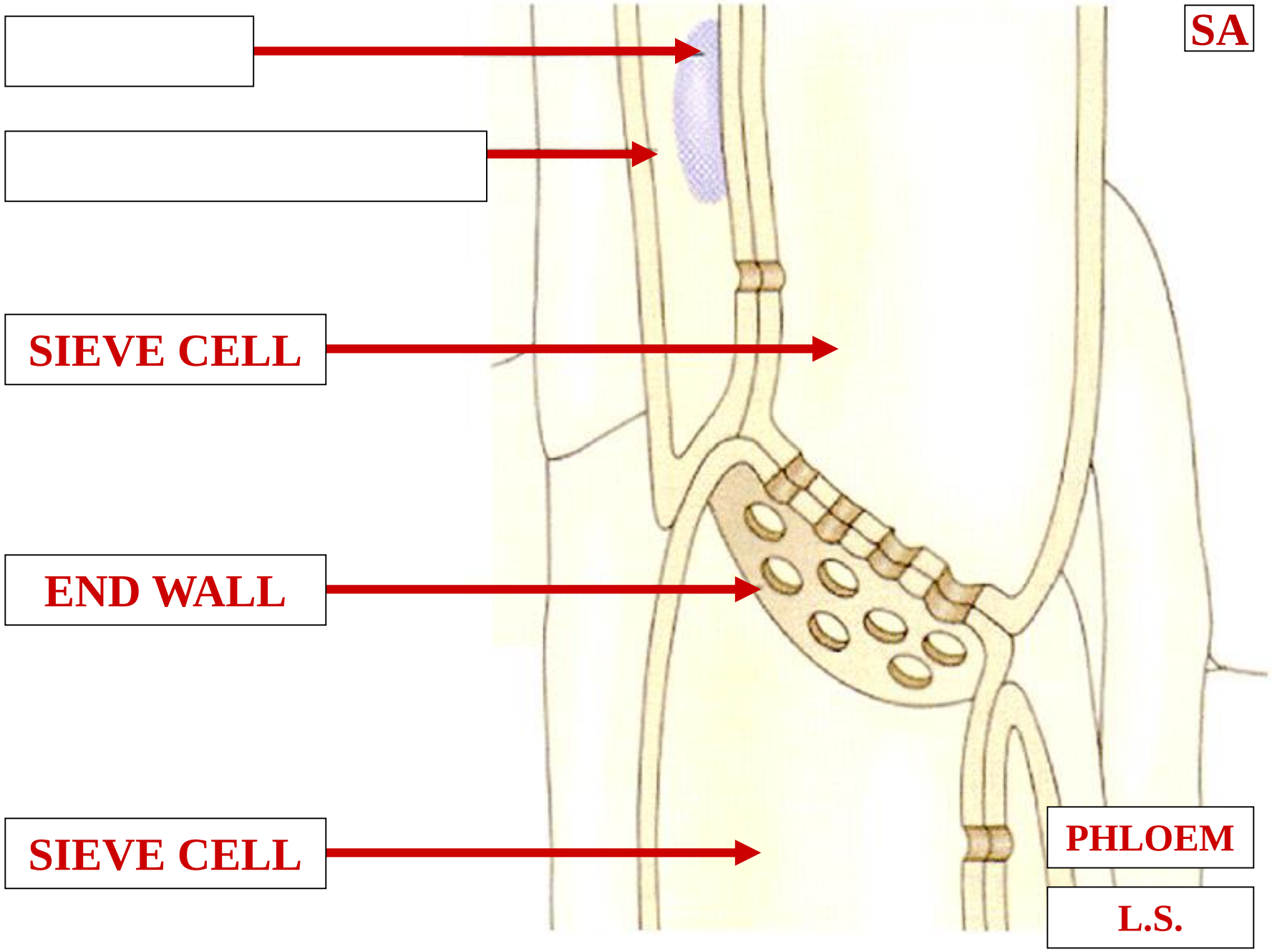
LYCOPHYTES

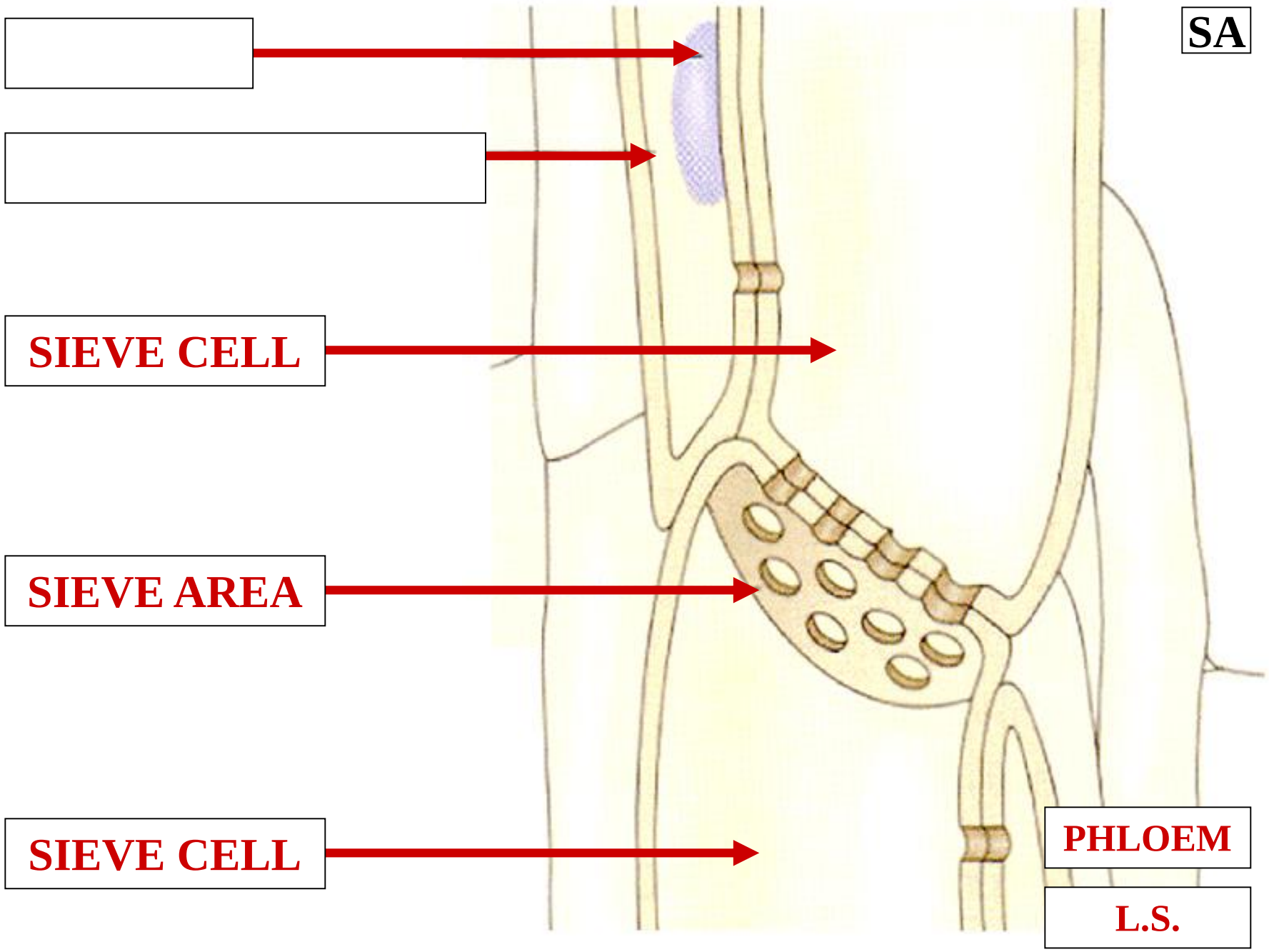
FERNS

GYMNOSPERMS






SA
SIEVE CELL
END WALL
SIEVE CELL
PHLOEM
L.S.


SA
SIEVE CELL
SIEVE AREA
SIEVE CELL
PHLOEM
L.S.

SIEVE AREA

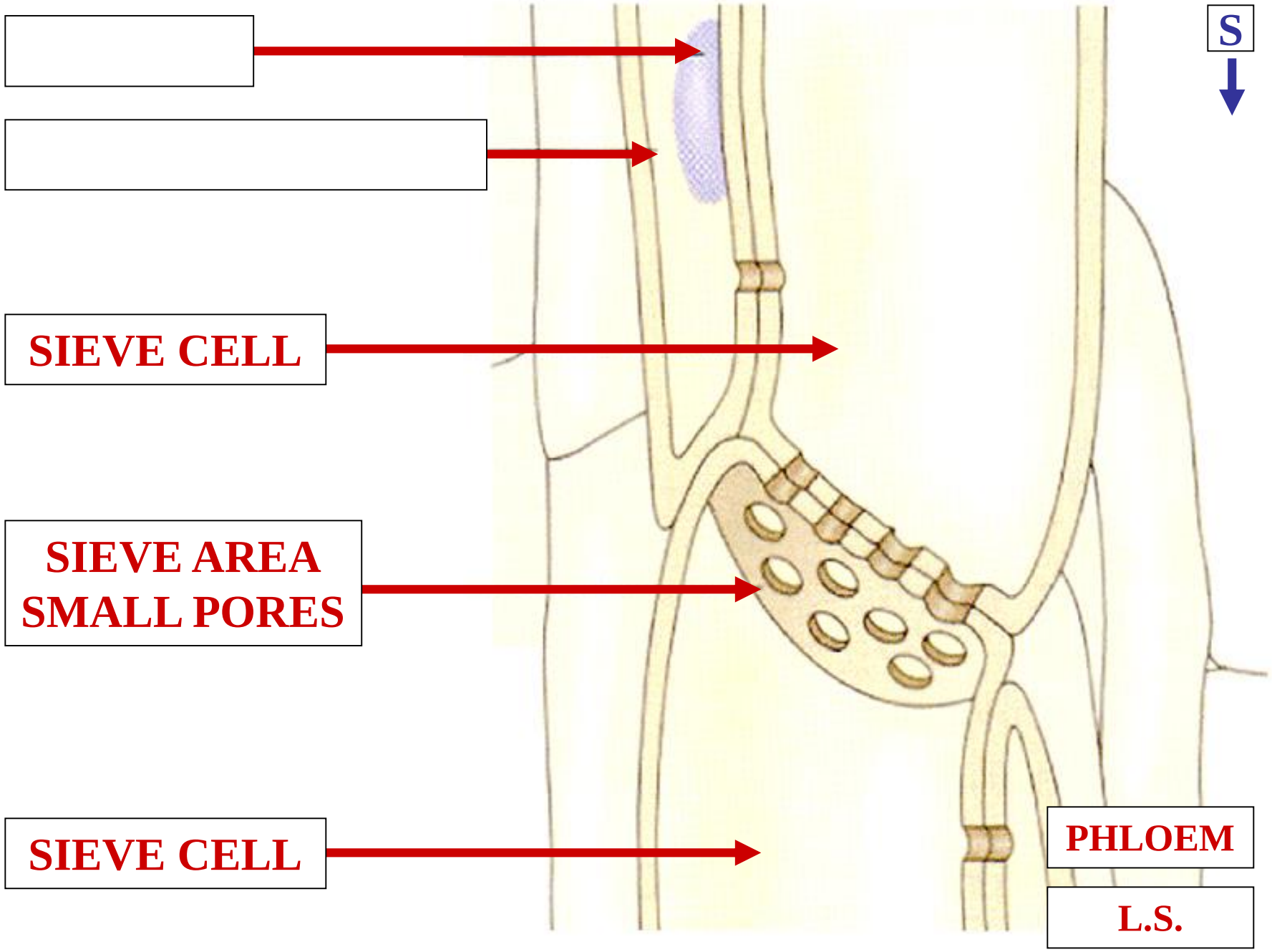
SIEVE CELL

SIEVE AREA

SMALL PORES

SIEVE CELL

SIEVE AREA


S
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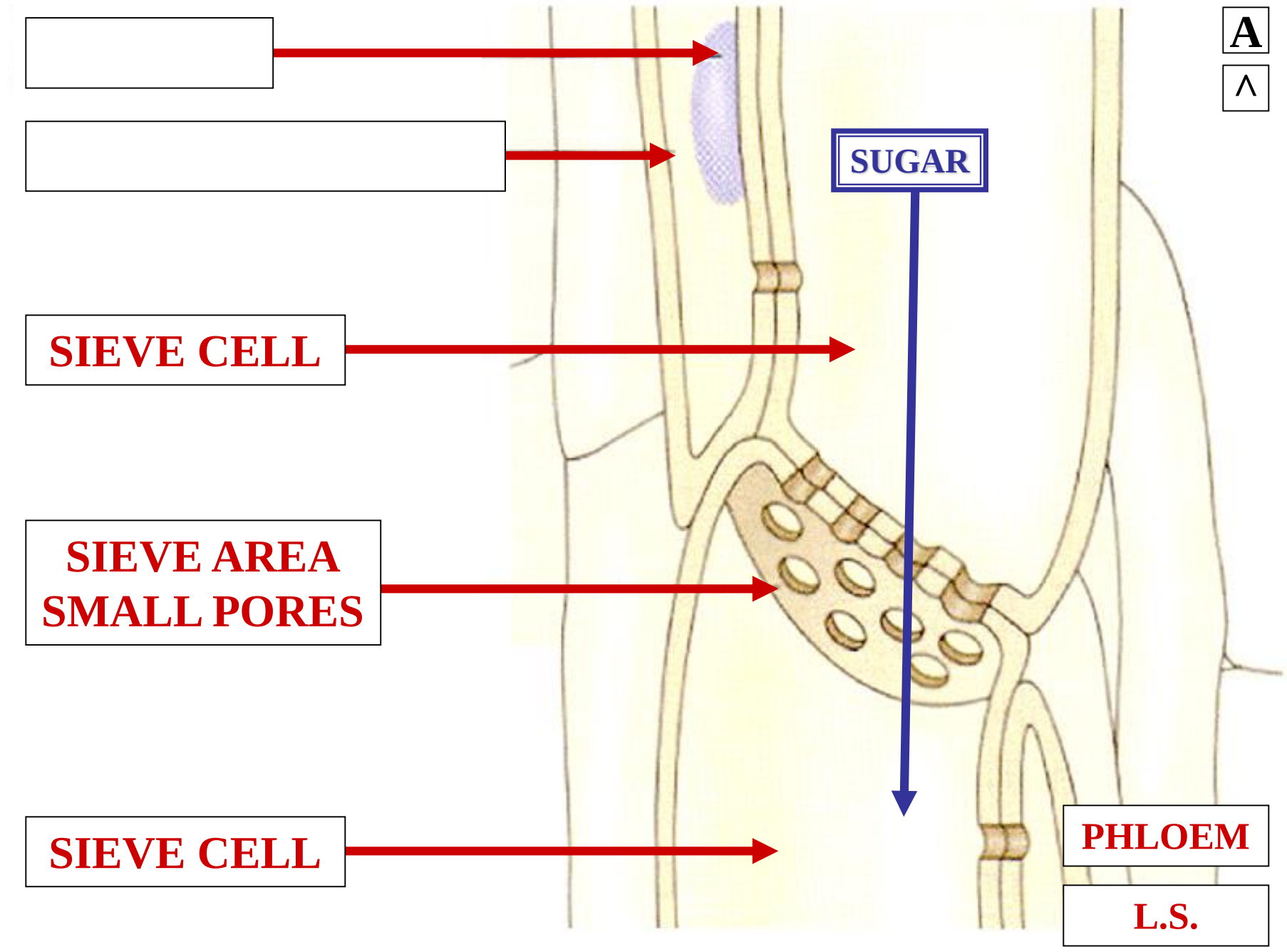
SIEVE AREA
SMALL PORES
SIEVE CELL
PHLOEM
L.S.


A
SUGAR
SIEVE CELL
SIEVE AREA
SMALL PORES
SIEVE CELL
PHLOEM
L.S.

ALBUMINOUS CELL

SIEVE CELL
ALBUMINOUS CELL

ASSOCIATED WITH SIEVE CELL

SIEVE CELL
ALBUMINOUS CELL

SIEVE CELL
ALBUMINOUS CELL

ASSOCIATED WITH SIEVE CELL

NUCLEATED

SIEVE CELL
ALBUMINOUS CELL

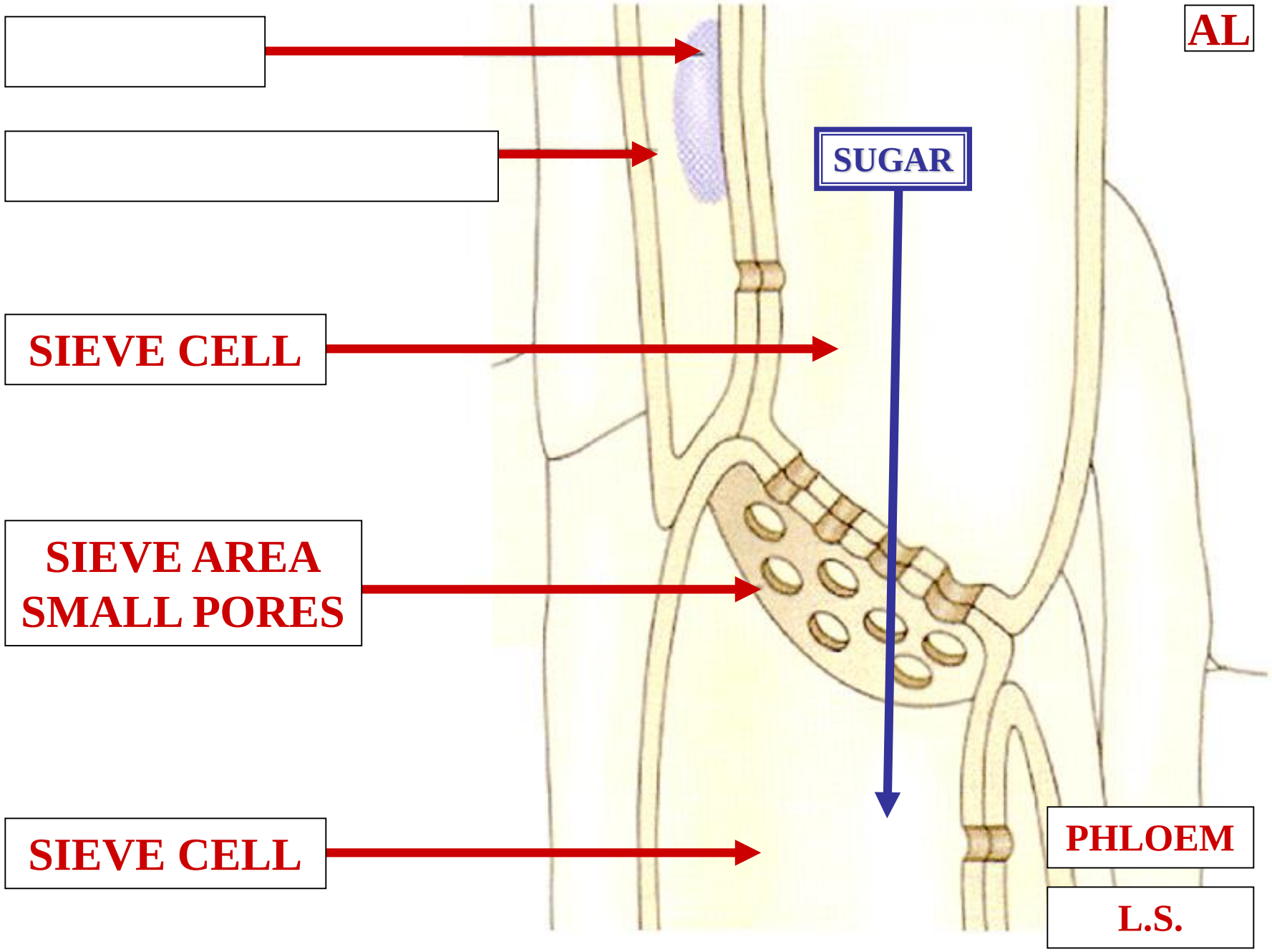
SIEVE CELL
ALBUMINOUS CELL

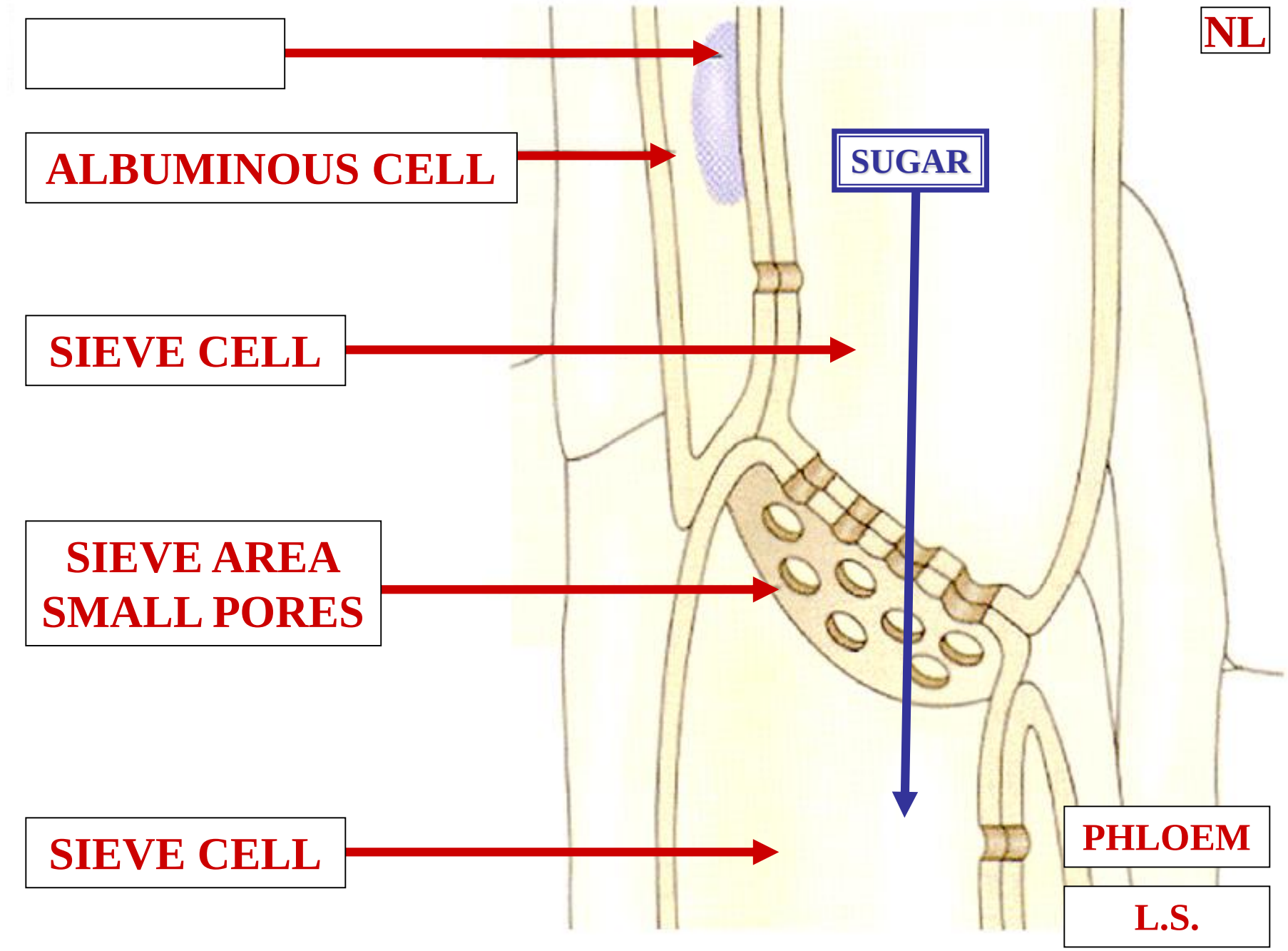
ASSOCIATED WITH SIEVE CELL

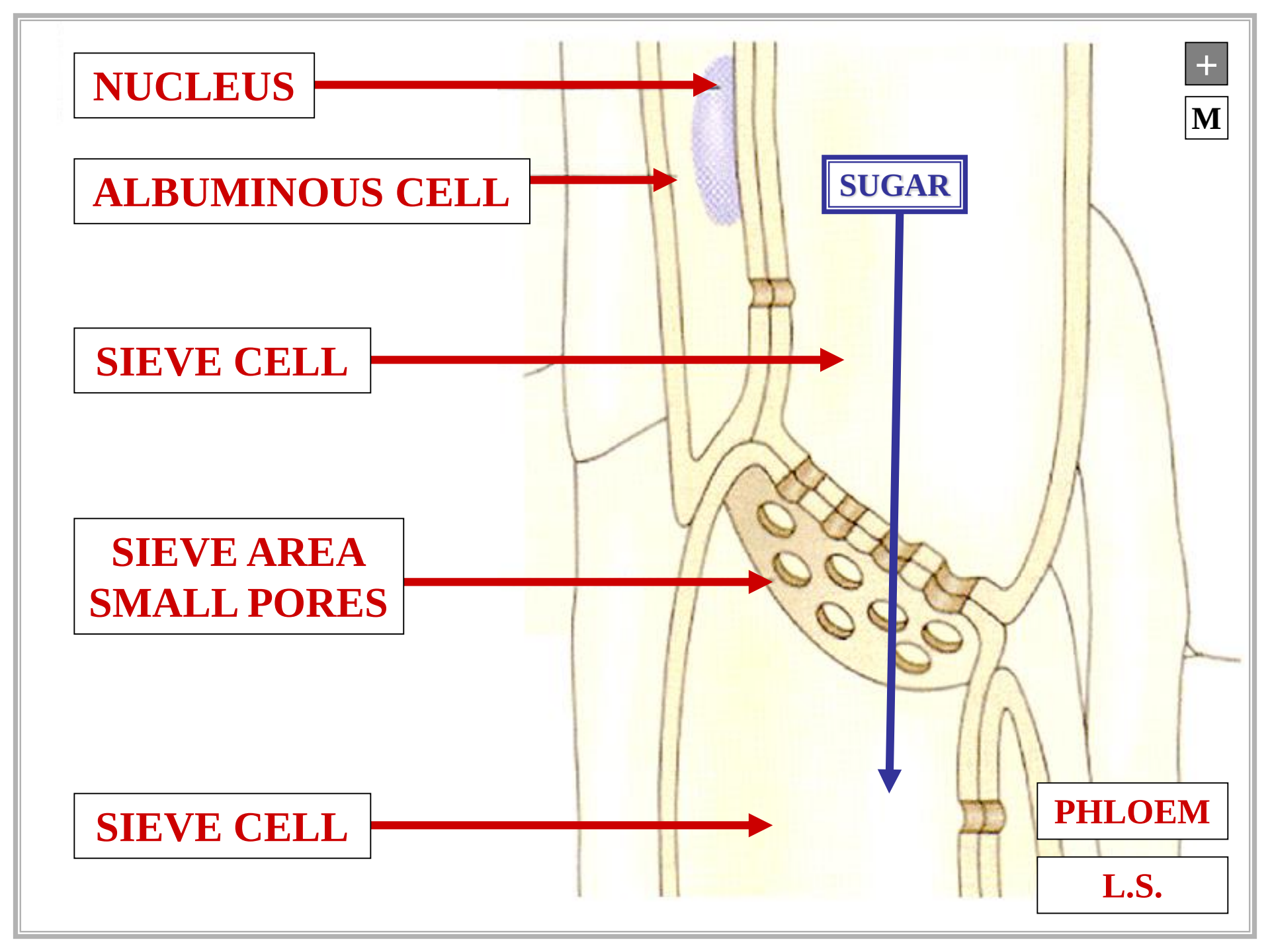
NUCLEATED

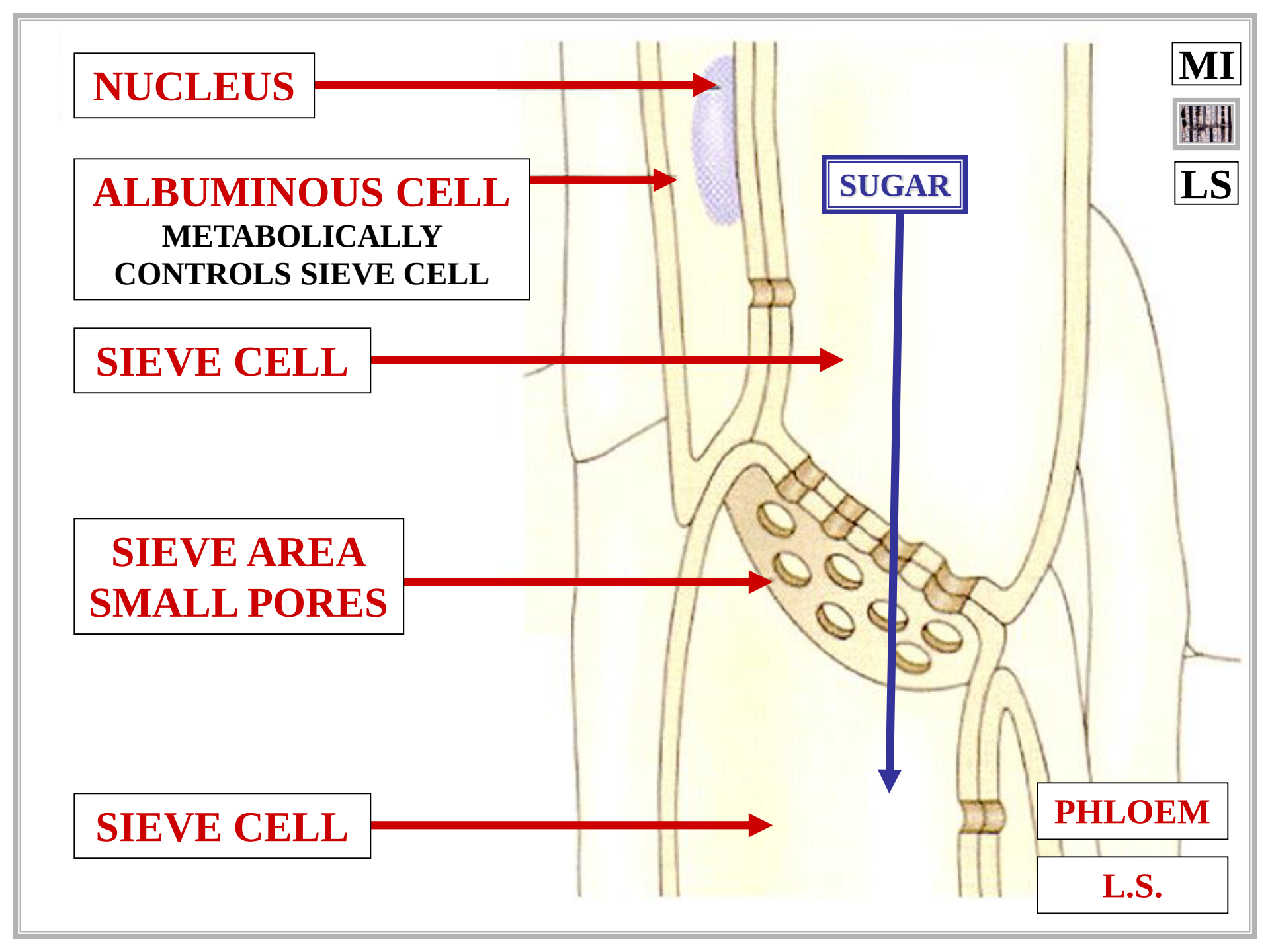
METABOLICALLY CONTROLS SIEVE CELL

SIEVE CELL
ALBUMINOUS CELL

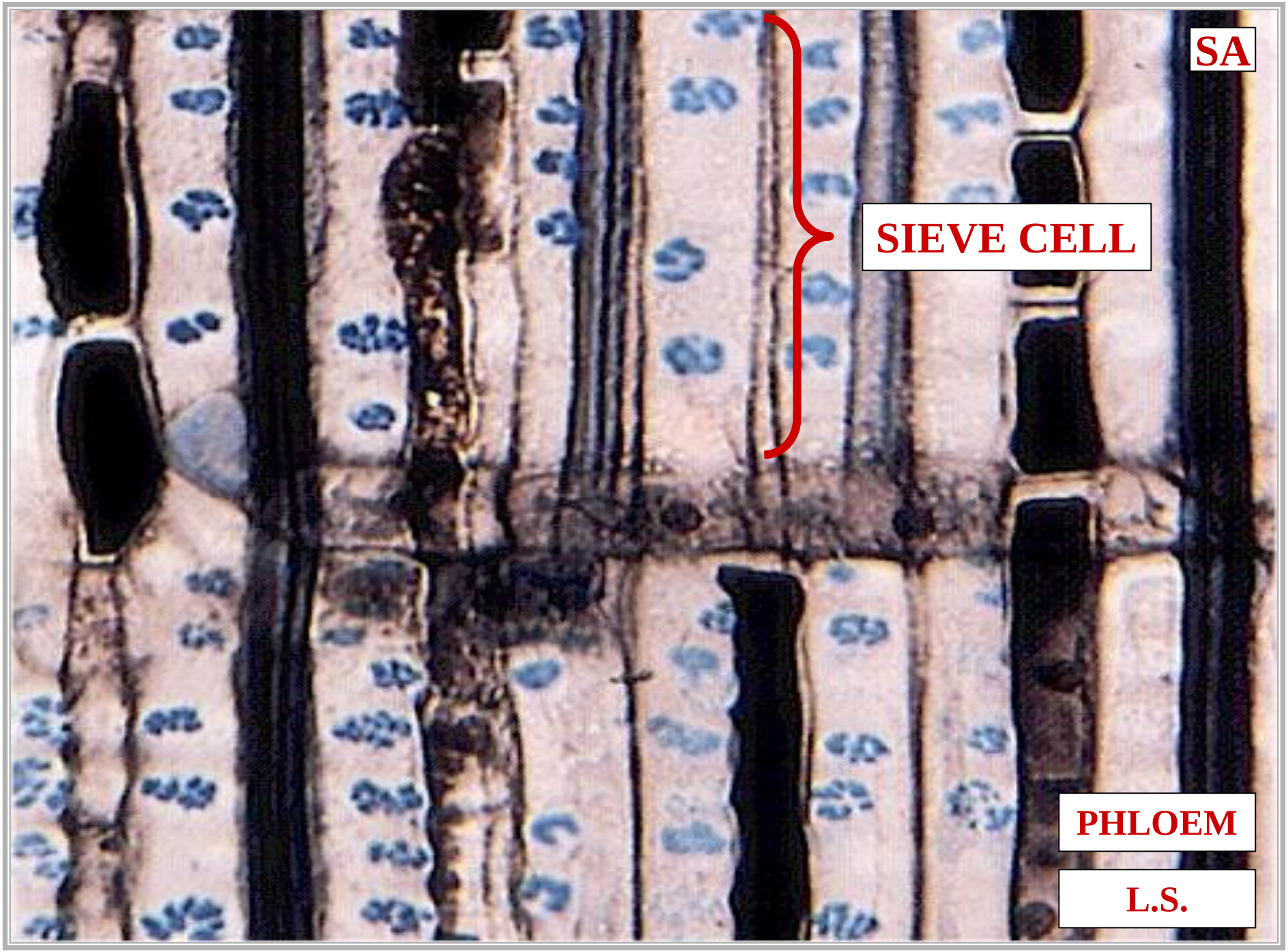

AL
SUGAR
SIEVE CELL
SIEVE AREA
SMALL PORES
SIEVE CELL
PHLOEM
L.S.

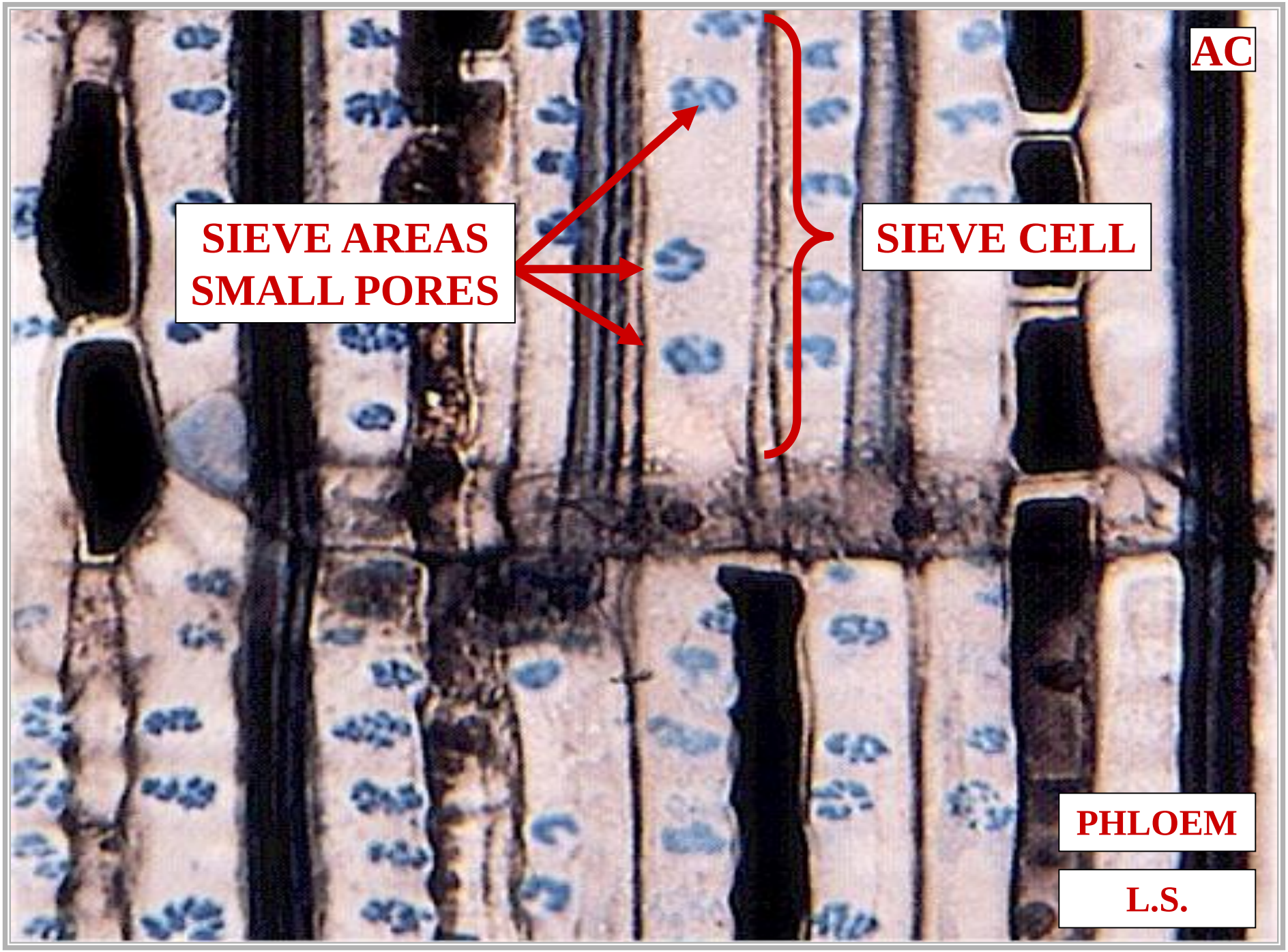

NL
ALBUMINOUS CELL
SUGAR
SIEVE CELL
SIEVE AREA
SMALL PORES
SIEVE CELL
PHLOEM
L.S.

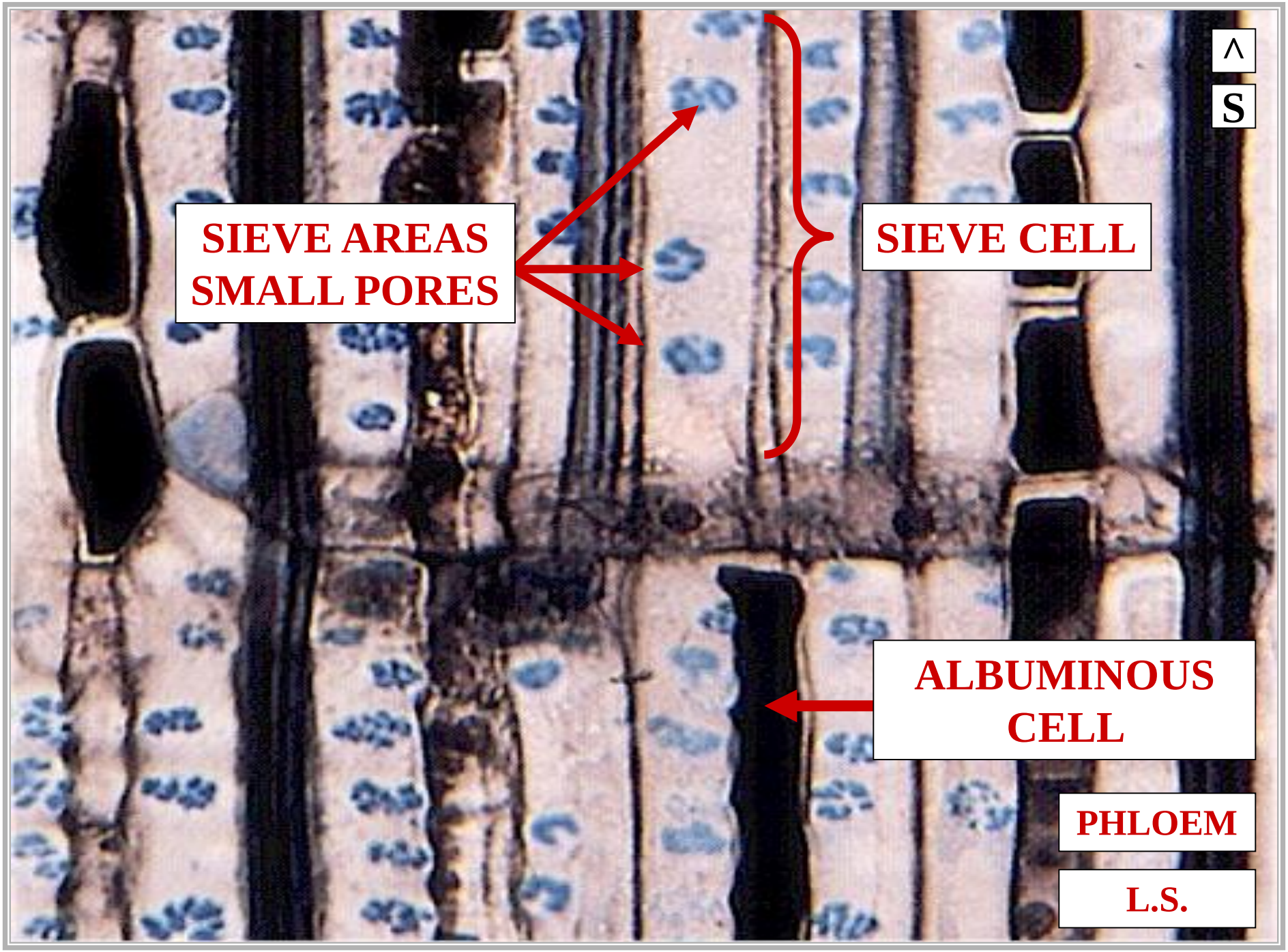

NUCLEUS
ALBUMINOUS CELL
SIEVE CELL
SIEVE AREA
SMALL PORES
SIEVE CELL
SUGAR
PHLOEM
L.S.
+
M


NUCLEUS
ALBUMINOUS CELL
METABOLICALLY
CONTROLS SIEVE CELL
SIEVE CELL
SIEVE AREA
SMALL PORES
SIEVE CELL
SUGAR
MI
LS
PHLOEM
L.S.

SIEVE CELL ALBUMINOUS CELL MICROGRAPHS L.S.


SA
SIEVE CELL
PHLOEM
L.S.


AC
SIEVE AREAS
SMALL PORES
SIEVE CELL
PHLOEM
L.S.


SIEVE AREAS
SMALL PORES
SIEVE CELL
ALBUMINOUS
CELL
PHLOEM
L.S.
^
S

SIEVE MEMBER

SIEVE ELEMENT
SIEVE MEMBER

KNOWN ANGIOSPERMS ONLY

SIEVE ELEMENT
SIEVE CELL

SIEVE ELEMENT
SIEVE MEMBER

KNOWN ANGIOSPERMS

END WALL WITH SIEVE PLATE

SIEVE ELEMENT
SIEVE CELL

SIEVE ELEMENT
SIEVE MEMBER

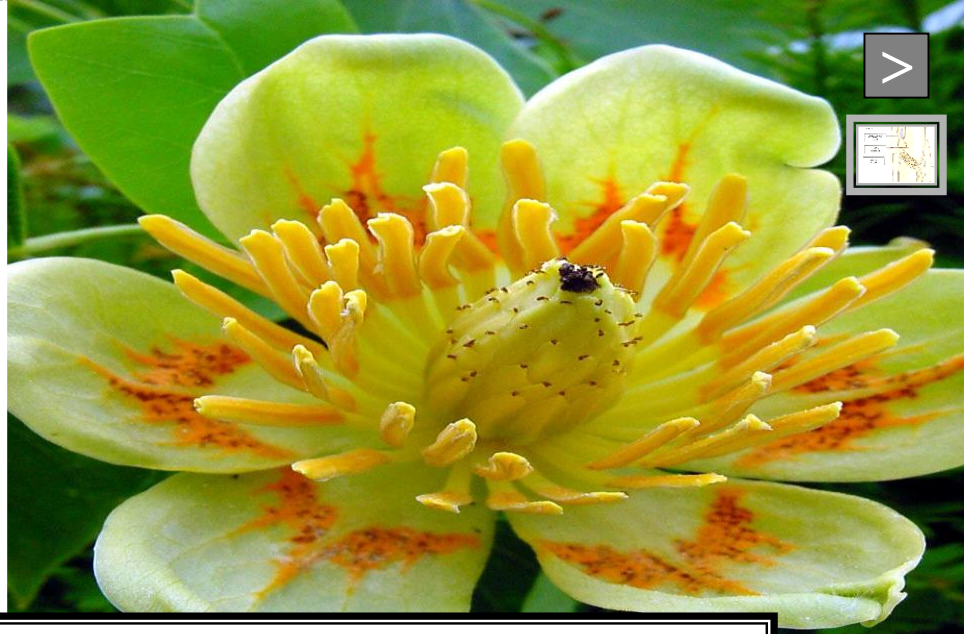
KNOWN ANGIOSPERMS

END WALL WITH SIEVE PLATE

LARGE PORES

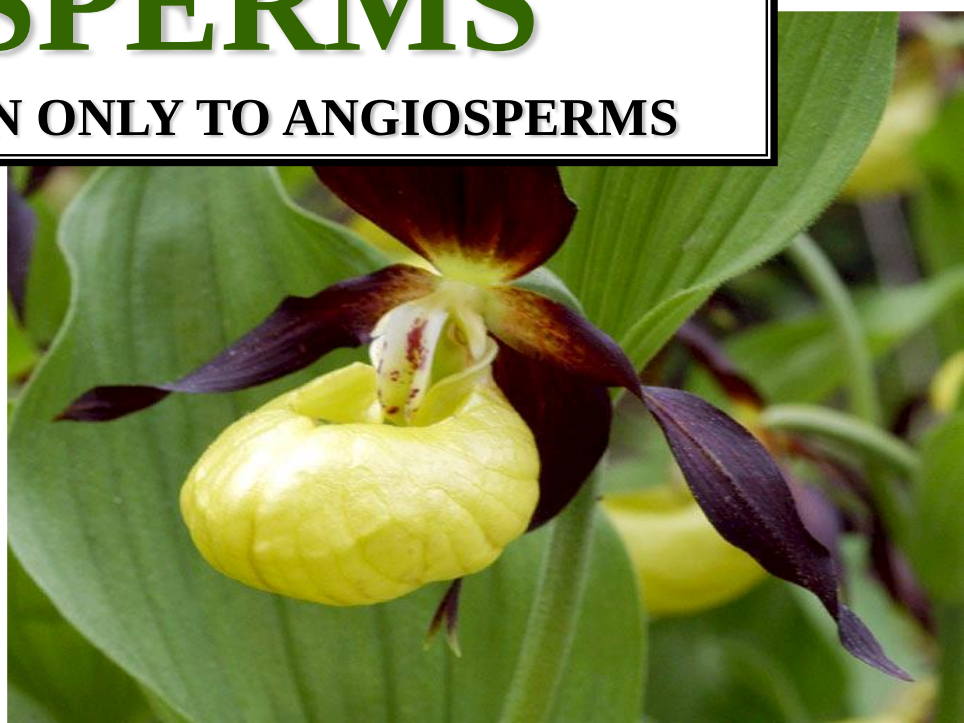
SIEVE ELEMENT
SIEVE CELL

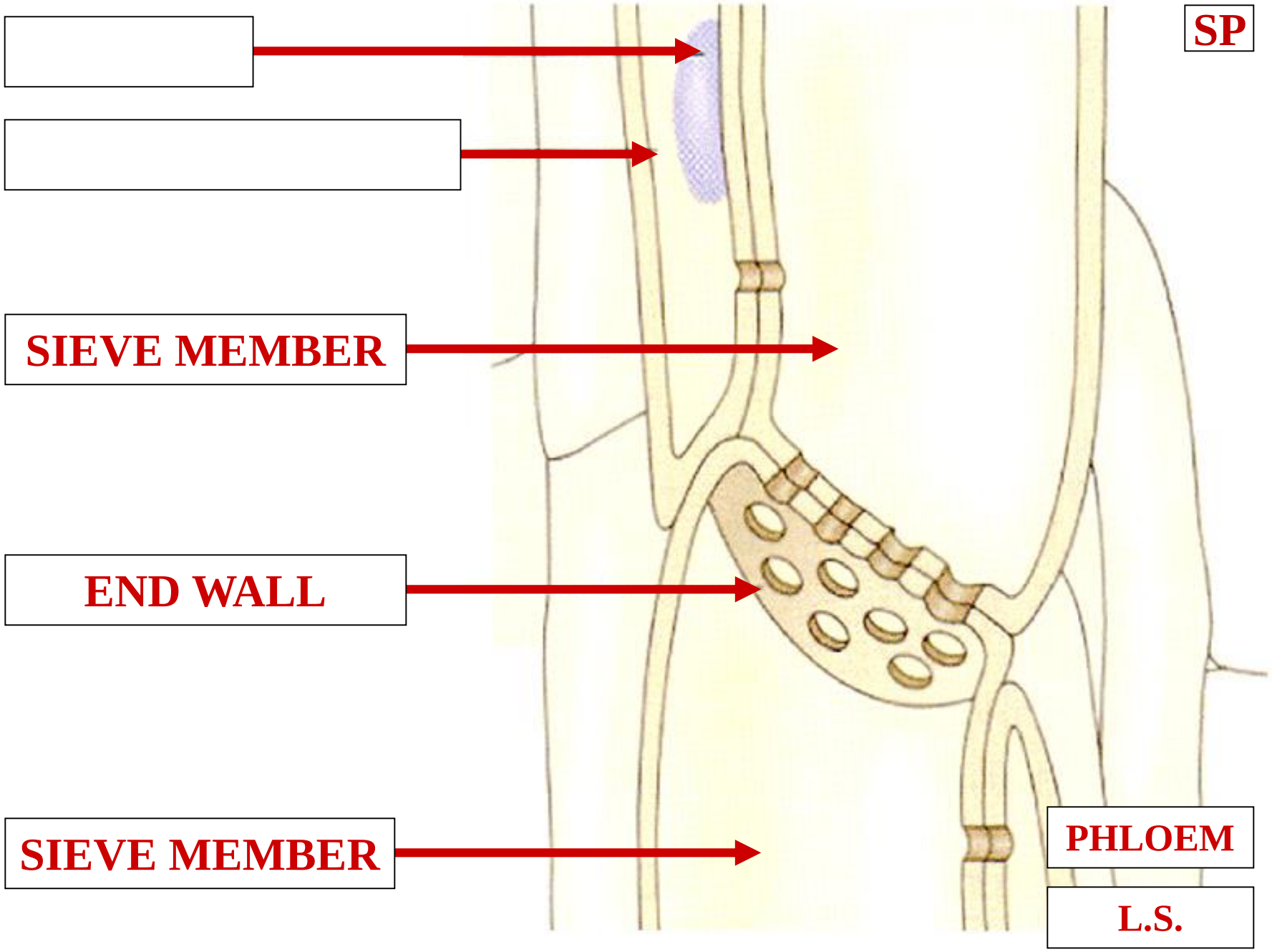

SIEVE MEMBERS
KNOWN
ANGIOSPERMS
ONLY



ANGIOSPERMS

SIEVE MEMBERS: KNOWN ONLY TO ANGIOSPERMS

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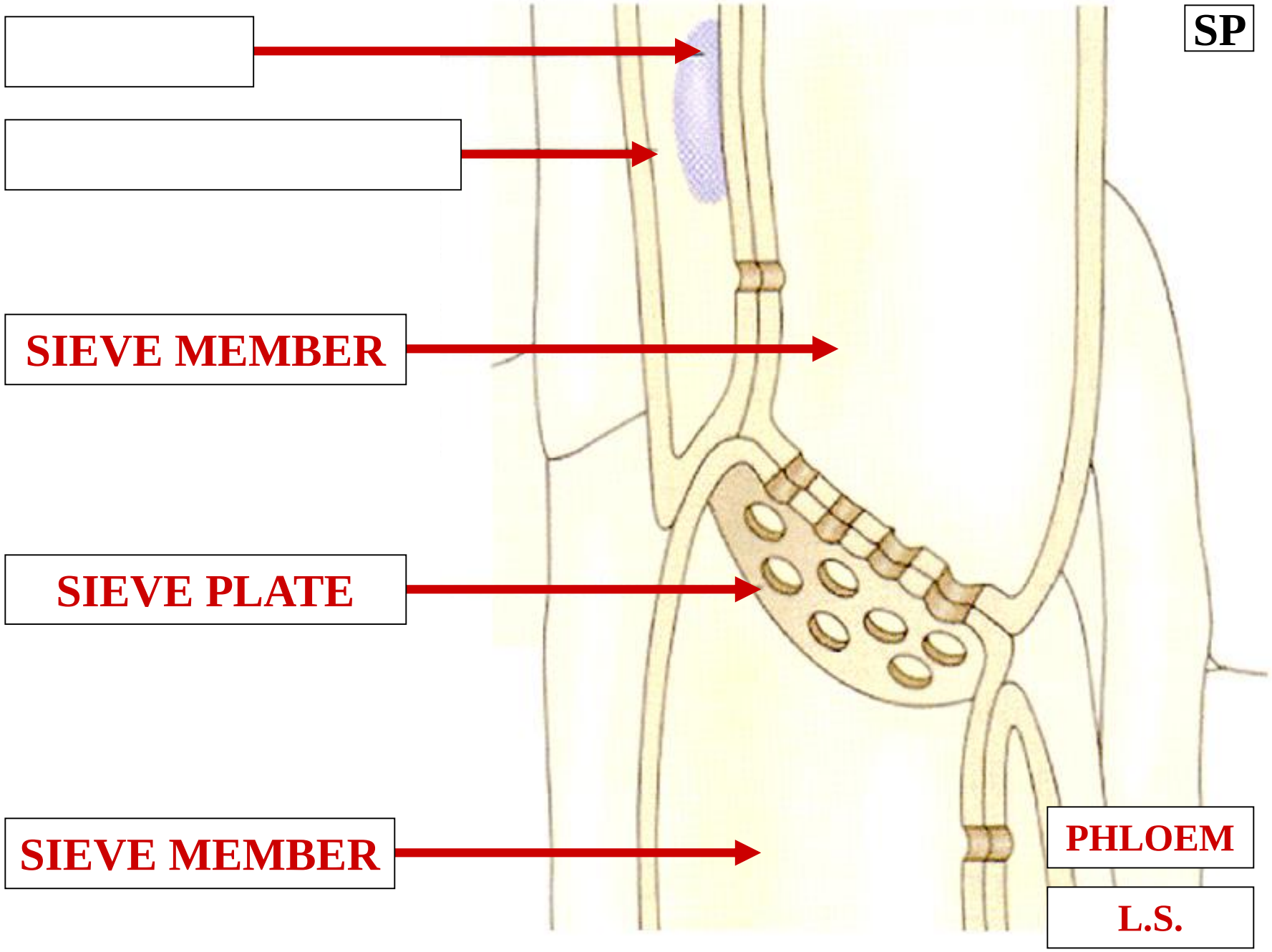
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SIEVE PLATE
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SIEVE PLATE

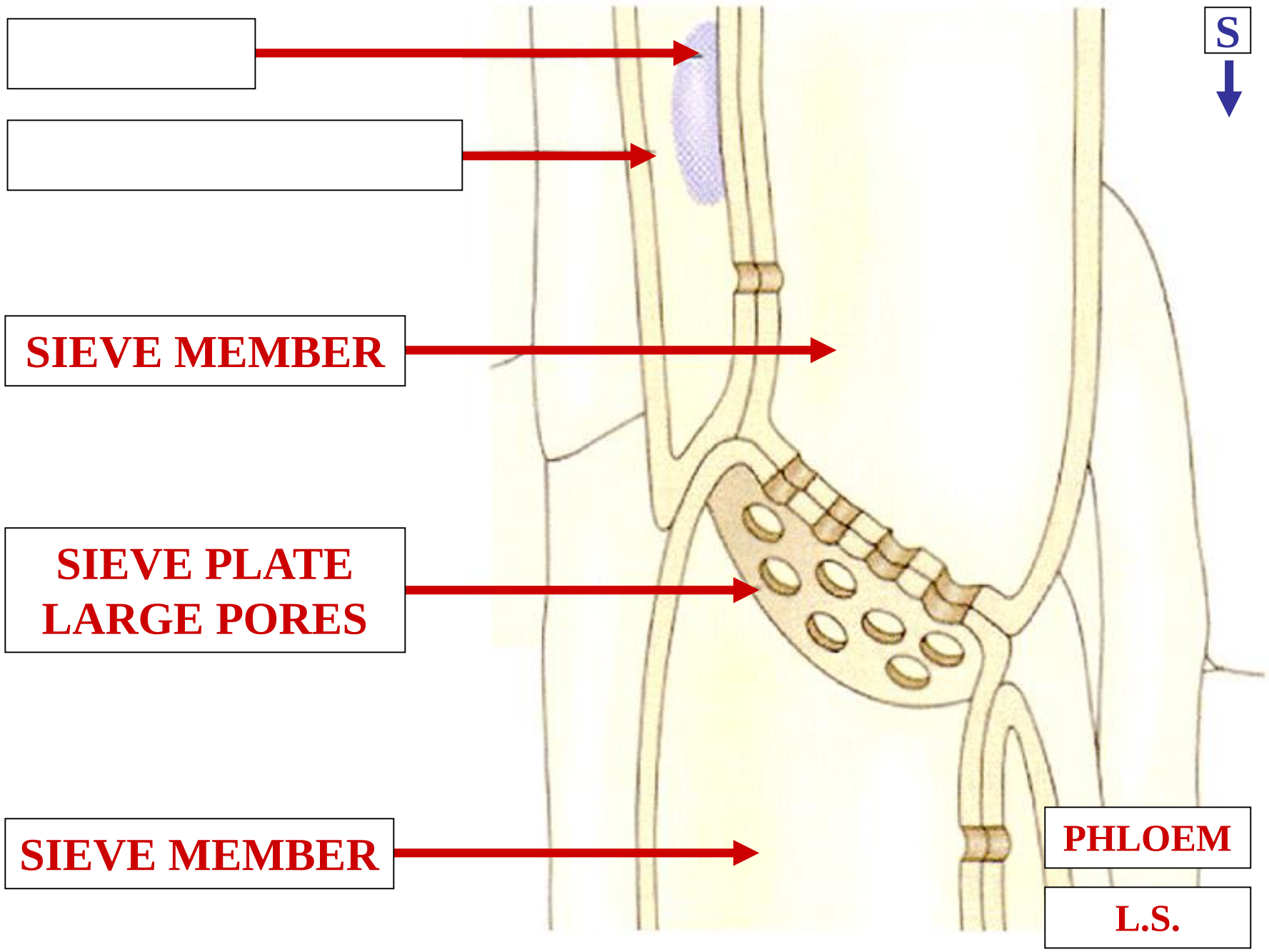
SIEVE MEMBER

SIEVE PLATE

LARGE PORES

SIEVE MEMBER

SIEVE PLATE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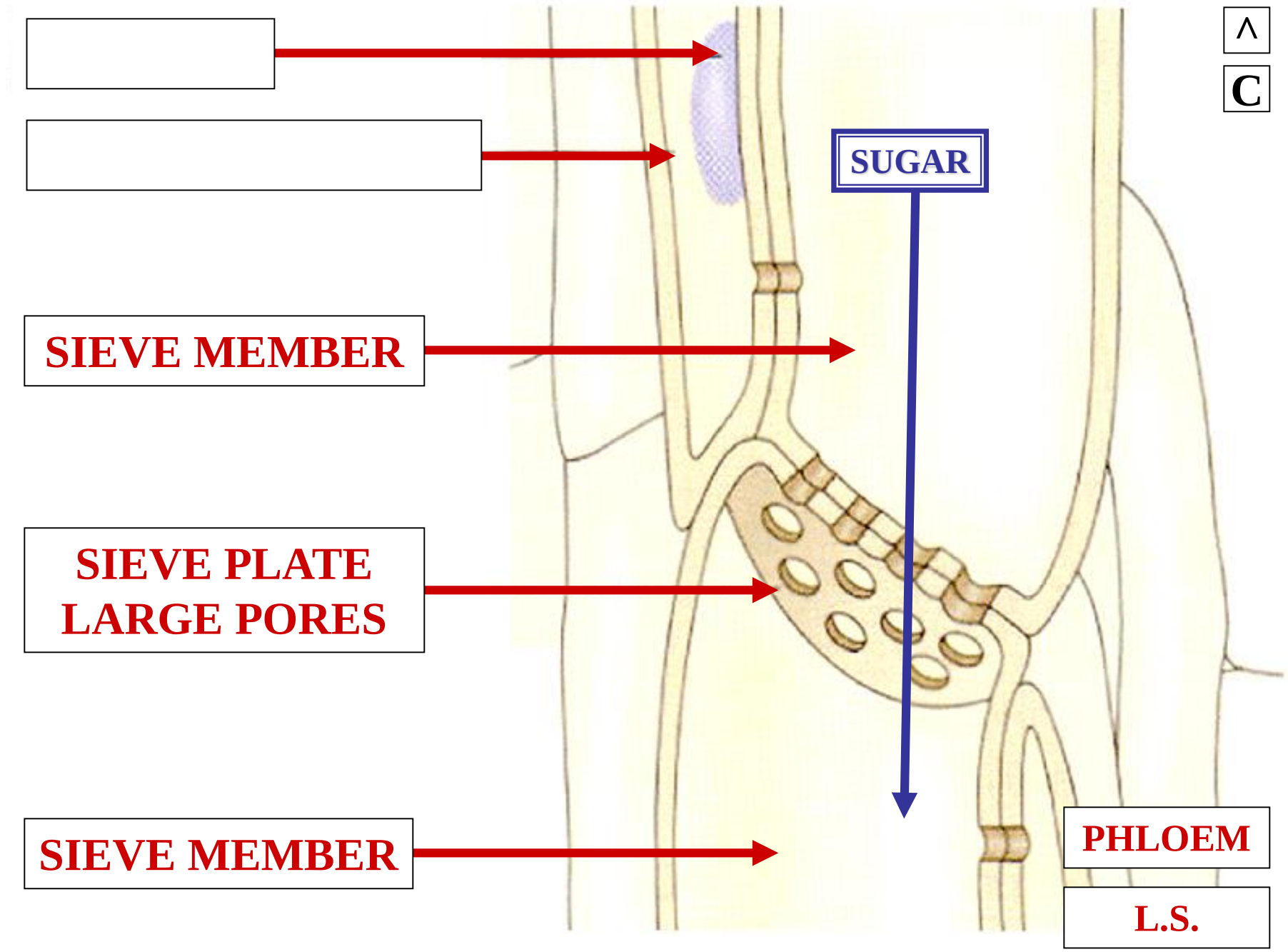
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PHLOEM
L.S.

COMPANION CELL

SIEVE MEMBER
COMPANION CELL

ASSOCIATED WITH SIEVE MEMBER

SIEVE MEMBER
COMPANION CELL

SIEVE MEMBER
COMPANION CELL

ASSOCIATED WITH SIEVE MEMBER

NUCLEATED

SIEVE MEMBER
COMPANION CELL

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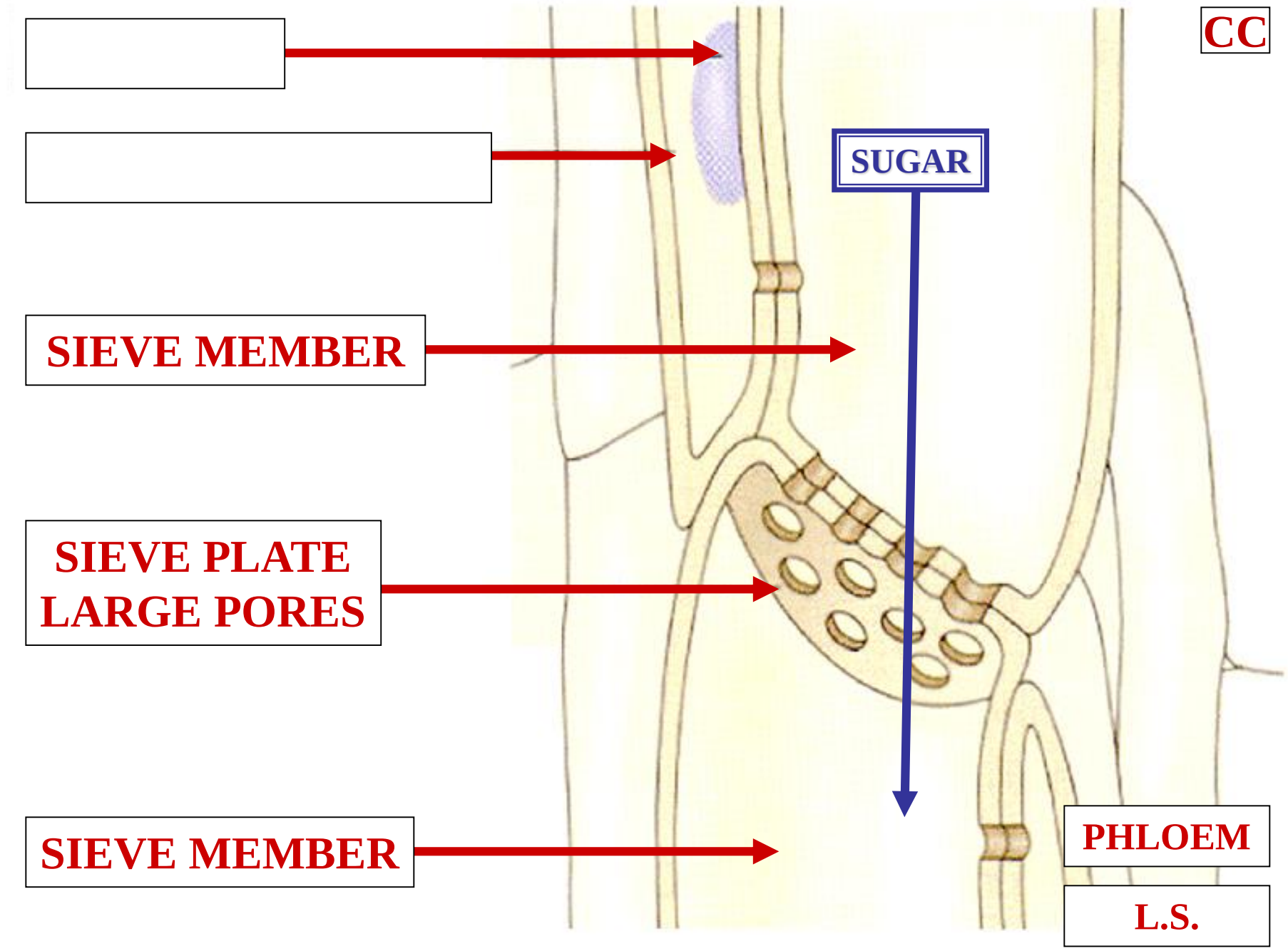
NUCLEATED

METABOLICALLY CONTROLS SIEVE MEMBER

SIEVE MEMBER
COMPANION CELL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SIEVE PLATE
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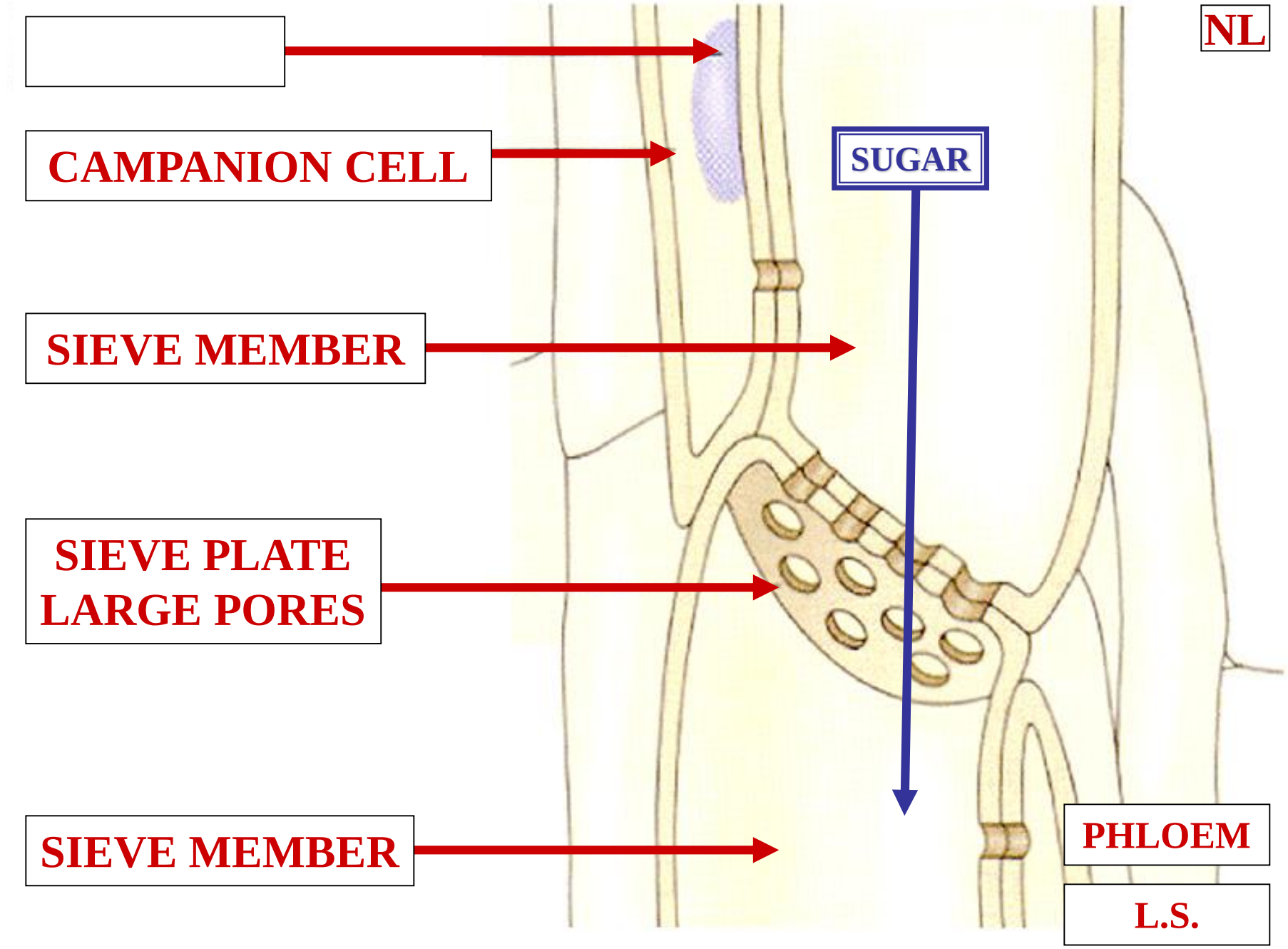
PHLOEM
L.S.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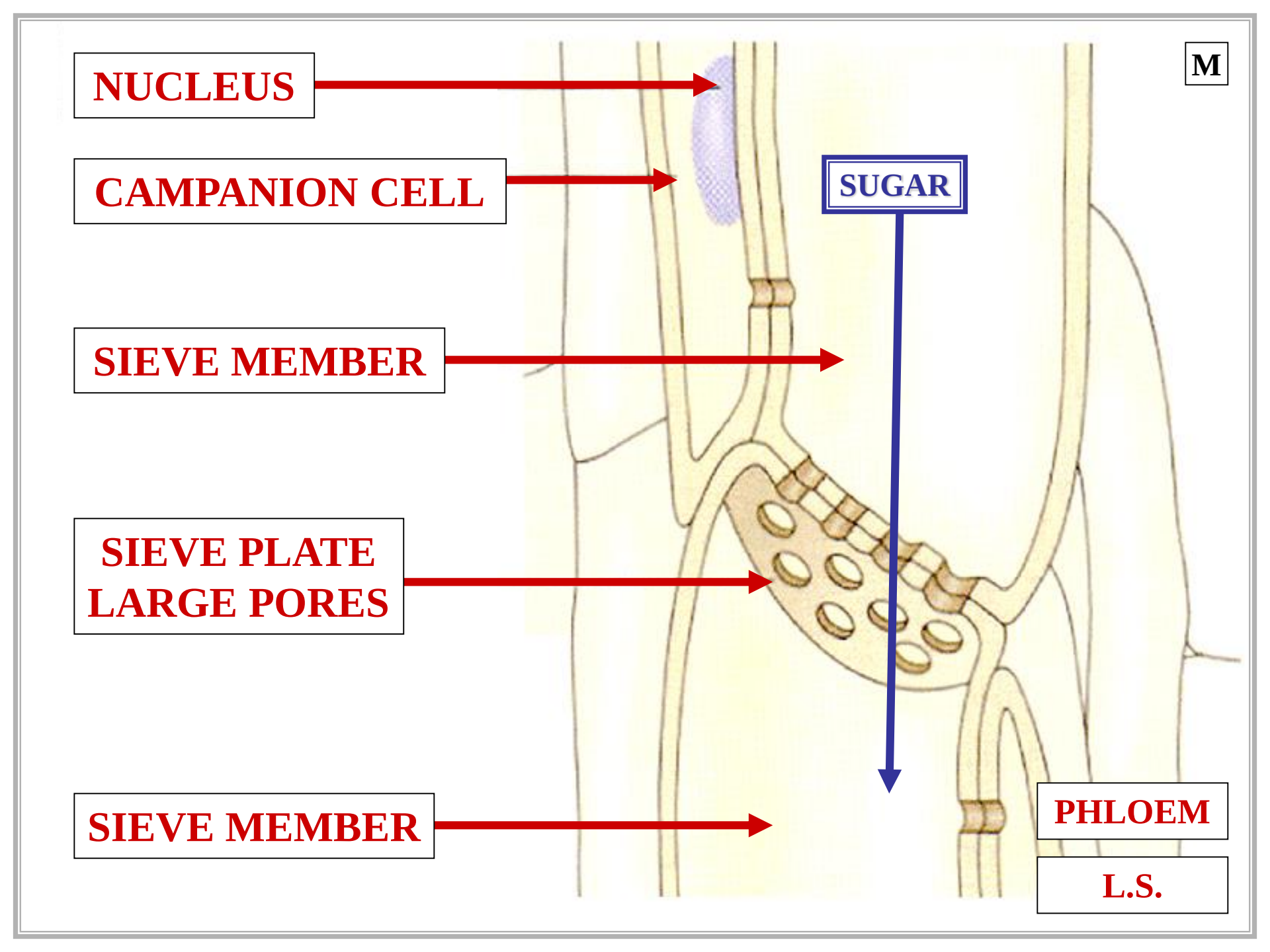
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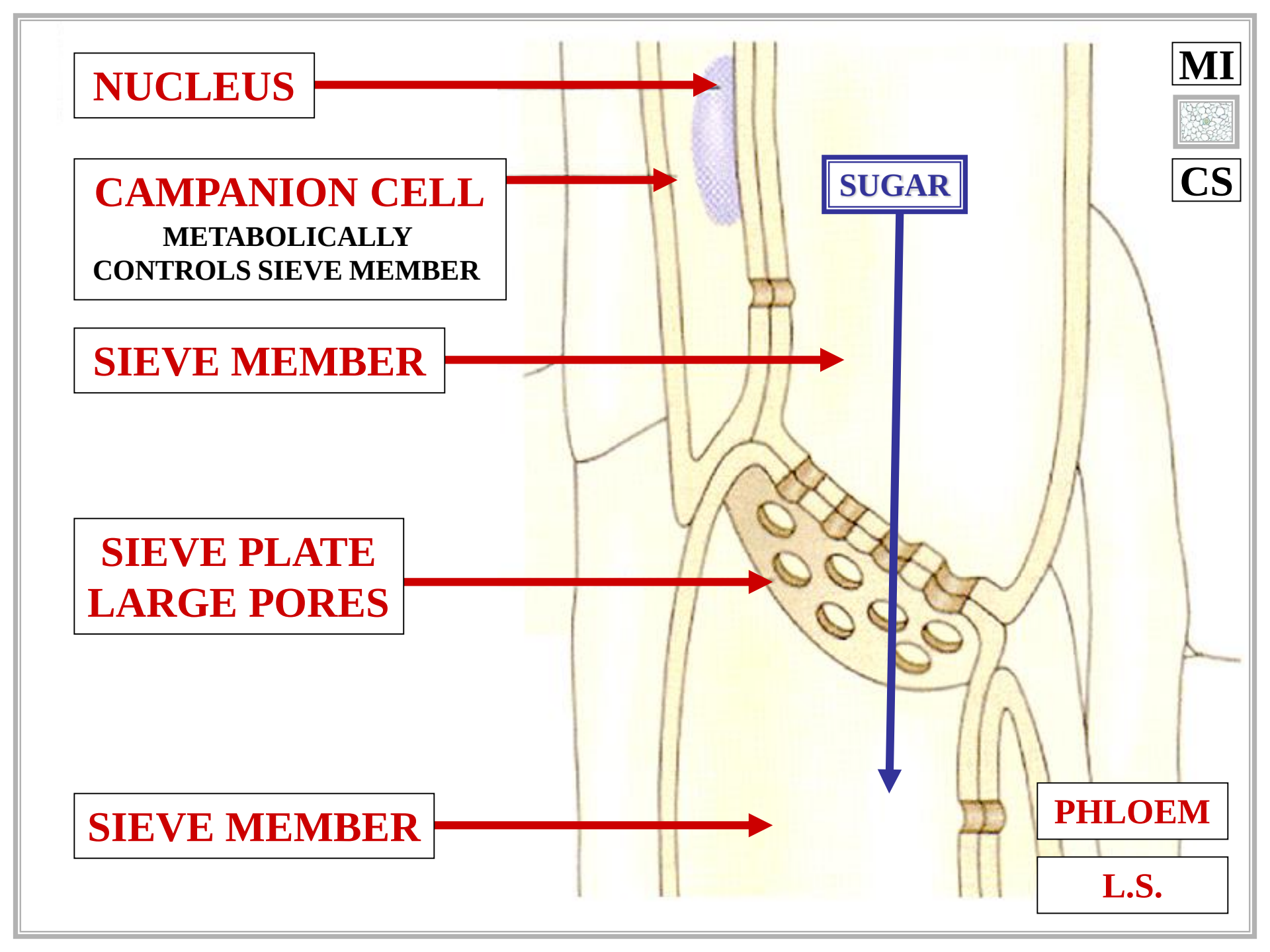
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CAMPANION CELL
METABOLICALLY
CONTROLS SIEVE MEMBER
SIEVE MEMBER
SIEVE PLATE
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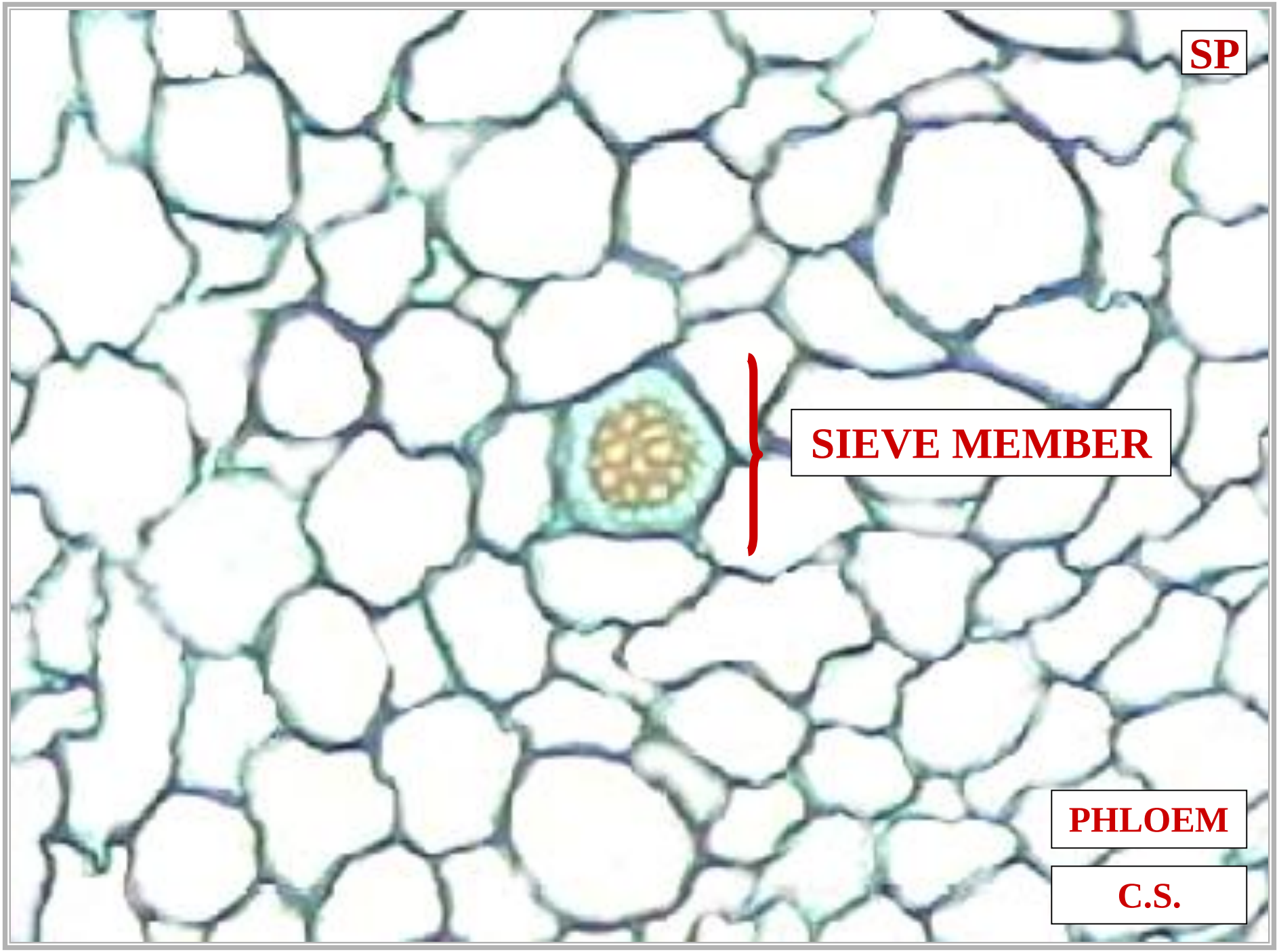
SIEVE MEMBER
SUGAR
MI
CS
PHLOEM
L.S.

SIEVE MEMBER COMPANION CELL MICROGRAPHS C.S.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SIEVE MEMBER
PHLOEM
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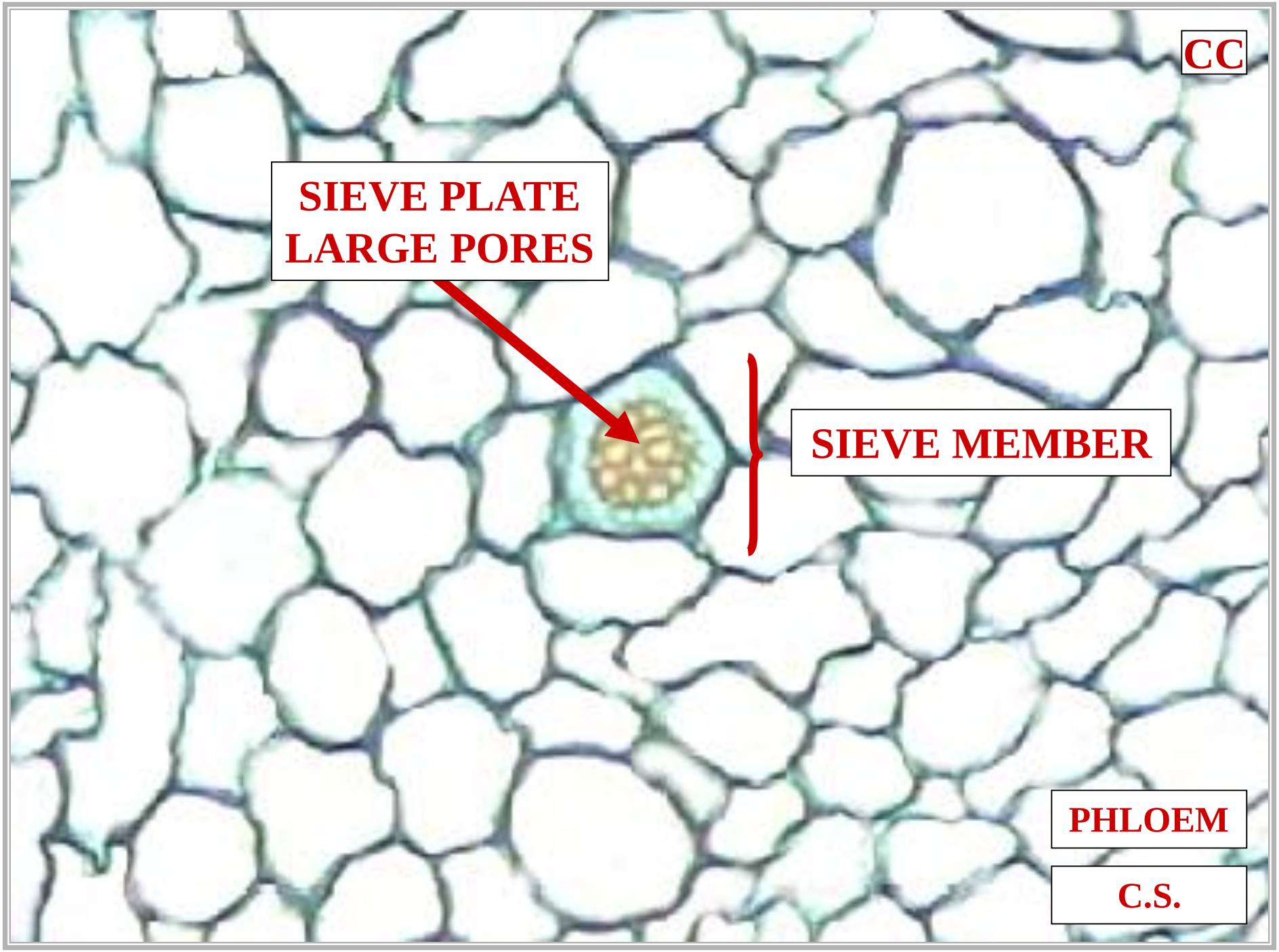
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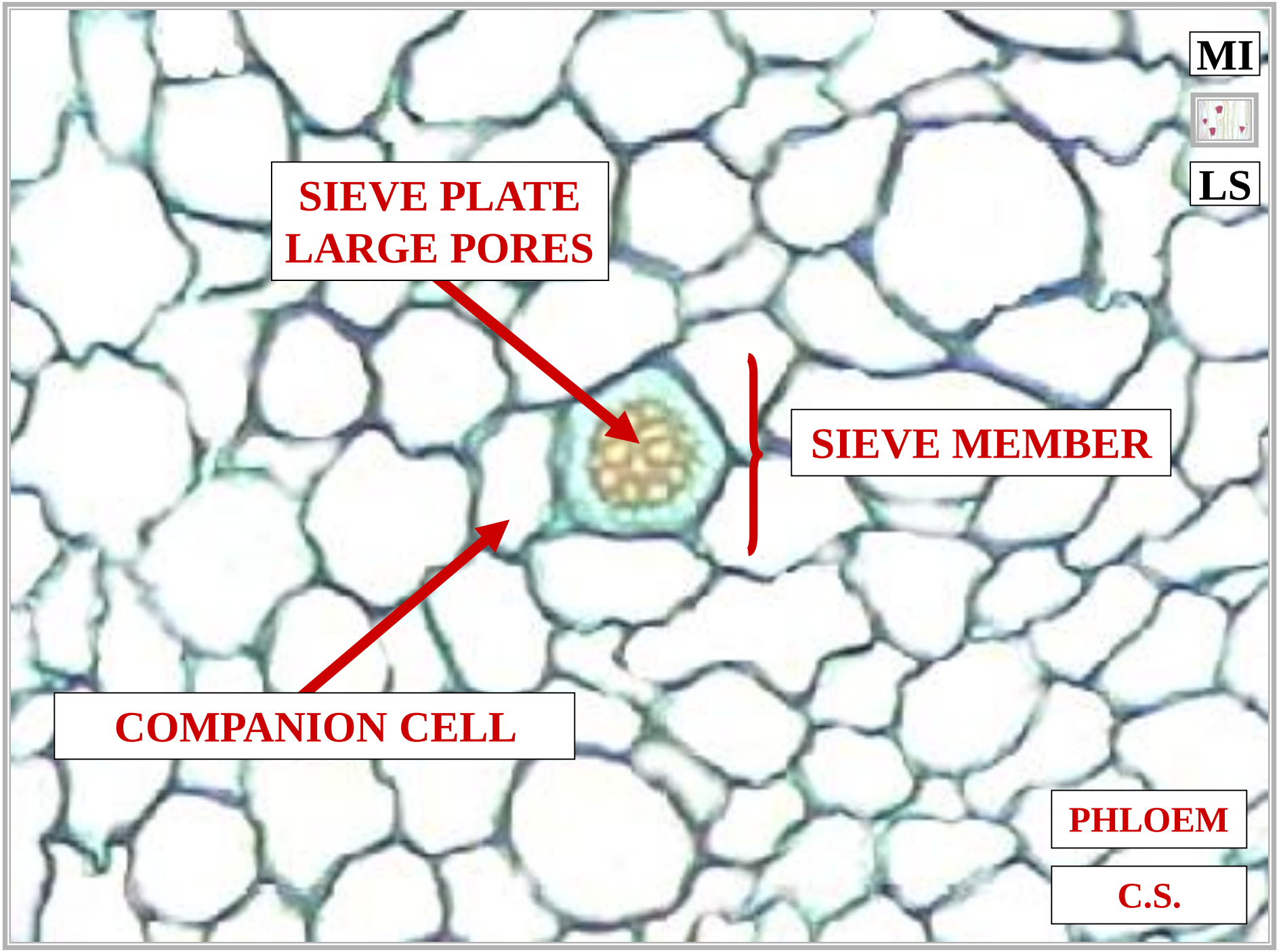
MI
LS
SIEVE PLATE
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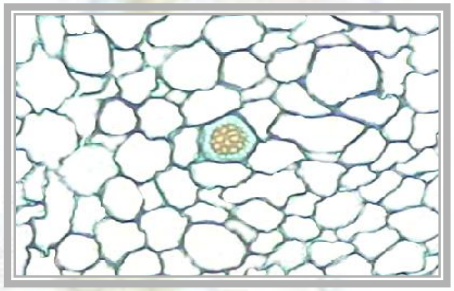
PHLOEM
C.S.

SIEVE MEMBER COMPANION CELL MICROGRAPHS L.S.



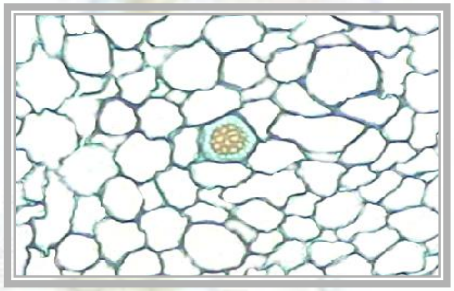
SP

SIEVE MEMBER

PHLOEM

L.S.

SIEVE PLATE
LARGE PORES



CL

SIEVE MEMBER

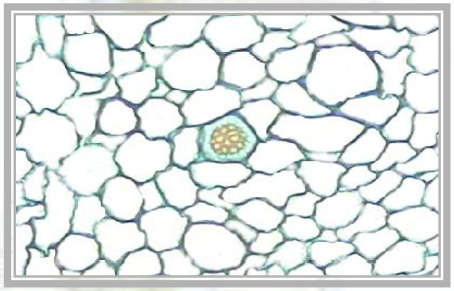
PHLOEM

L.S.

SIEVE PLATE
LARGE PORES

CALLOSE

SIEVE MEMBER



CC

PHLOEM

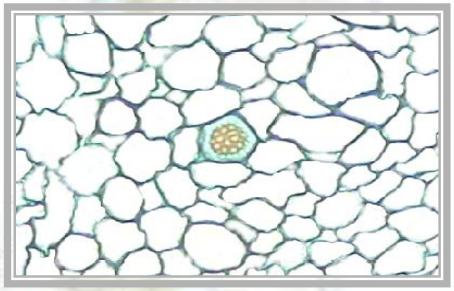
L.S.

SIEVE PLATE
LARGE PORES

CALLOSE

COMPANION CELL

SIEVE MEMBER



PT

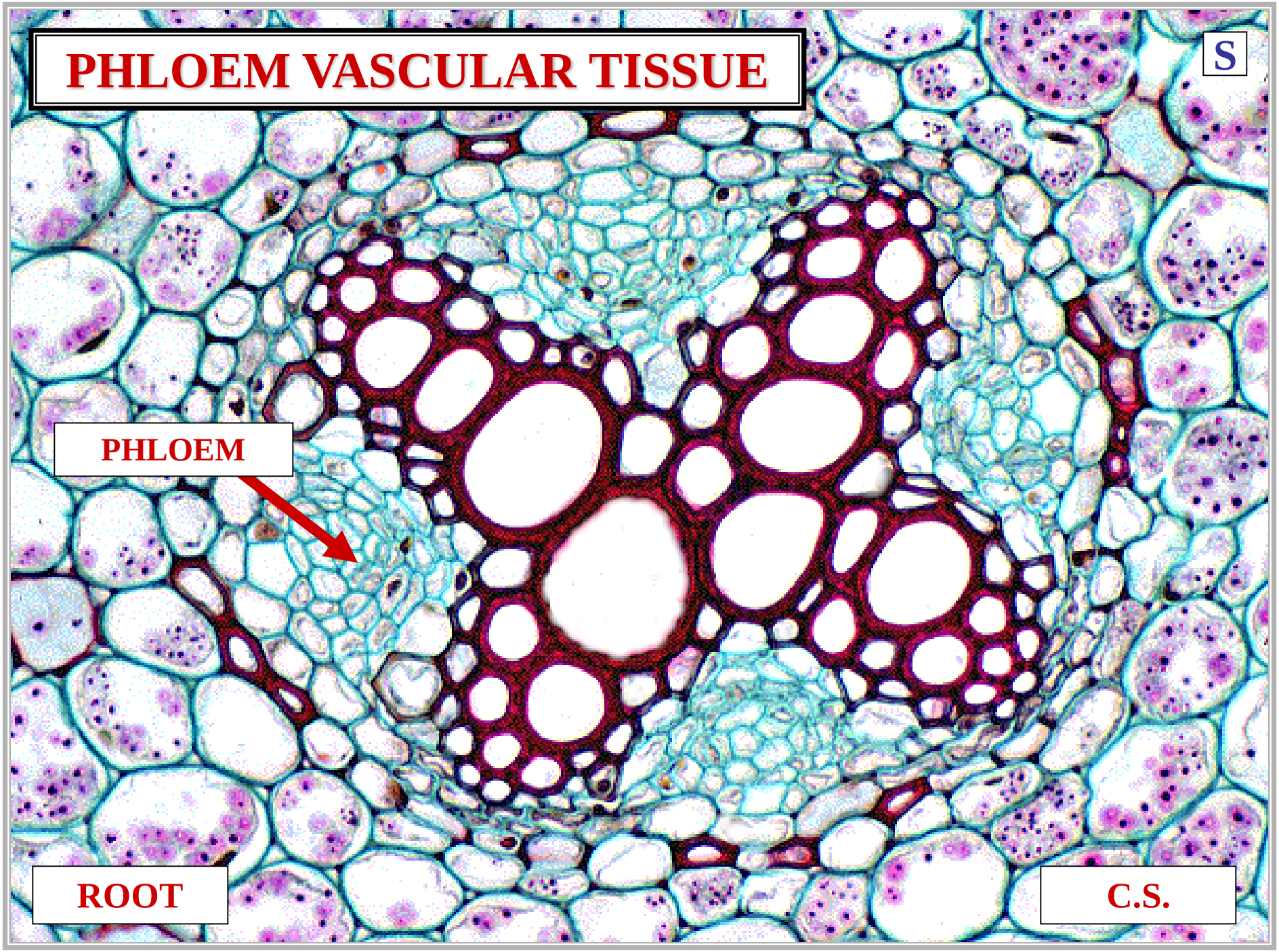
S

PHLOEM

L.S.

P

PHLOEM TISSUE SUMMARY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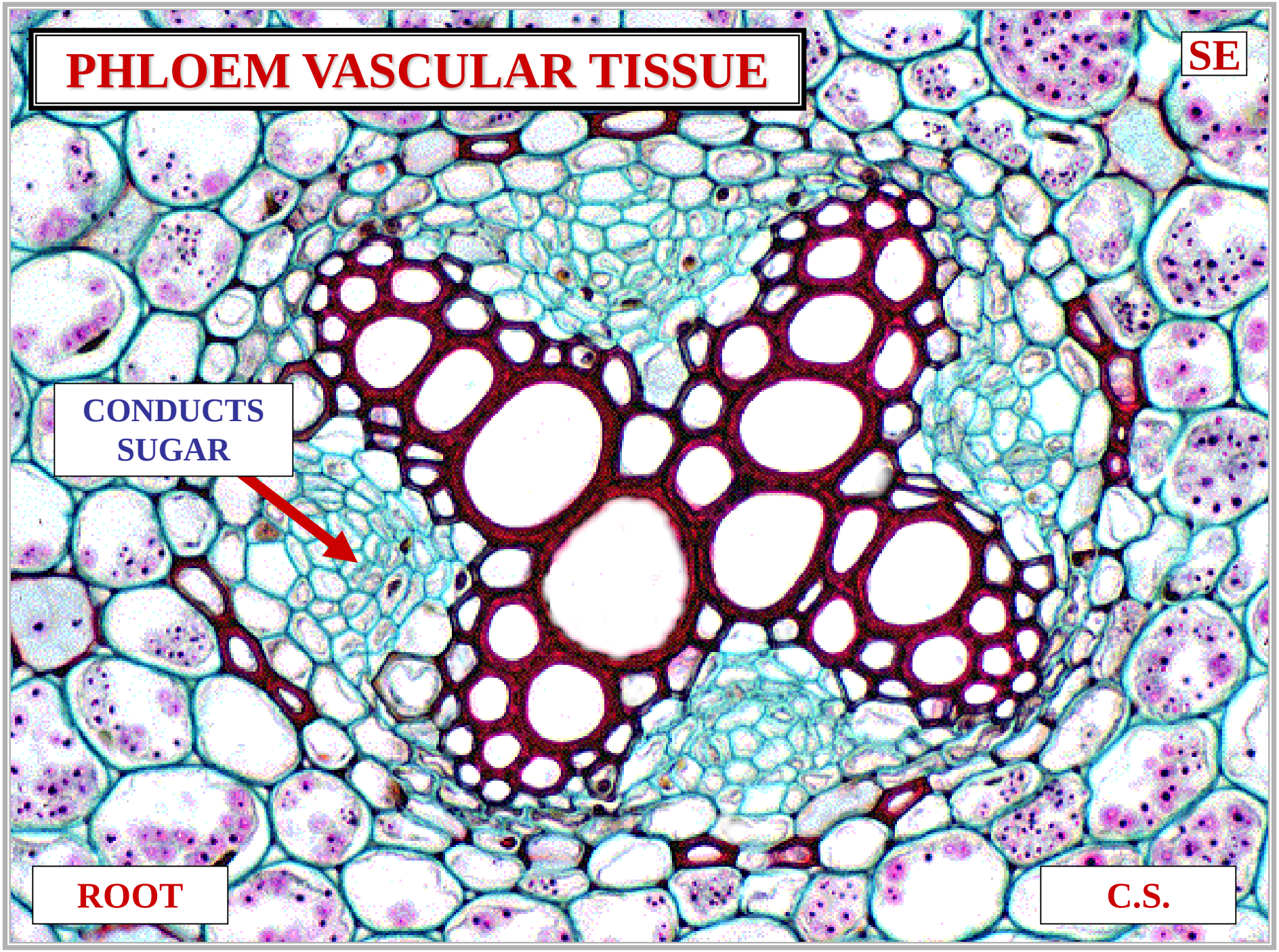
PHLOEM
ROOT
C.S.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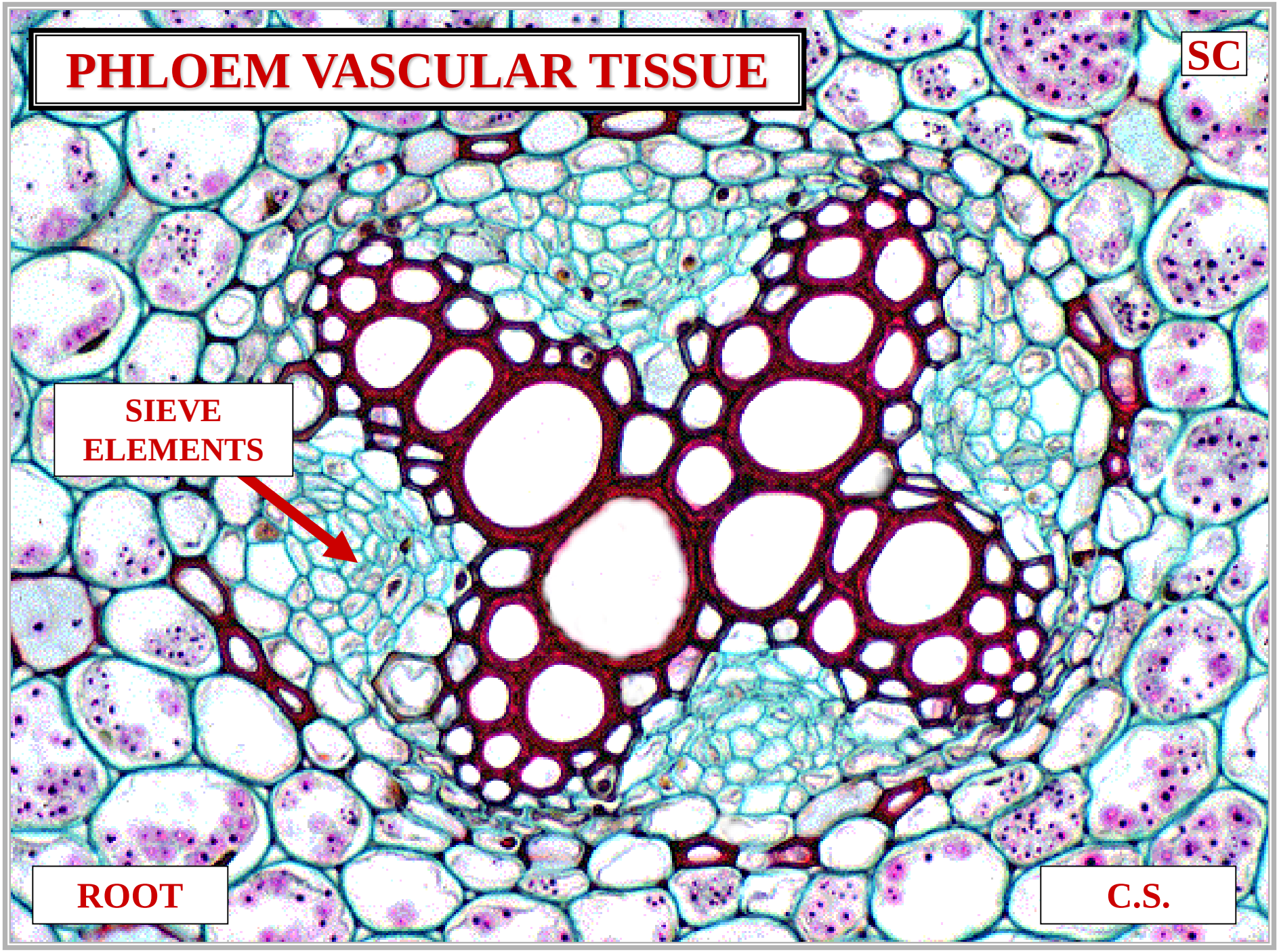
SE
CONDUCTS SUGAR
ROOT
C.S.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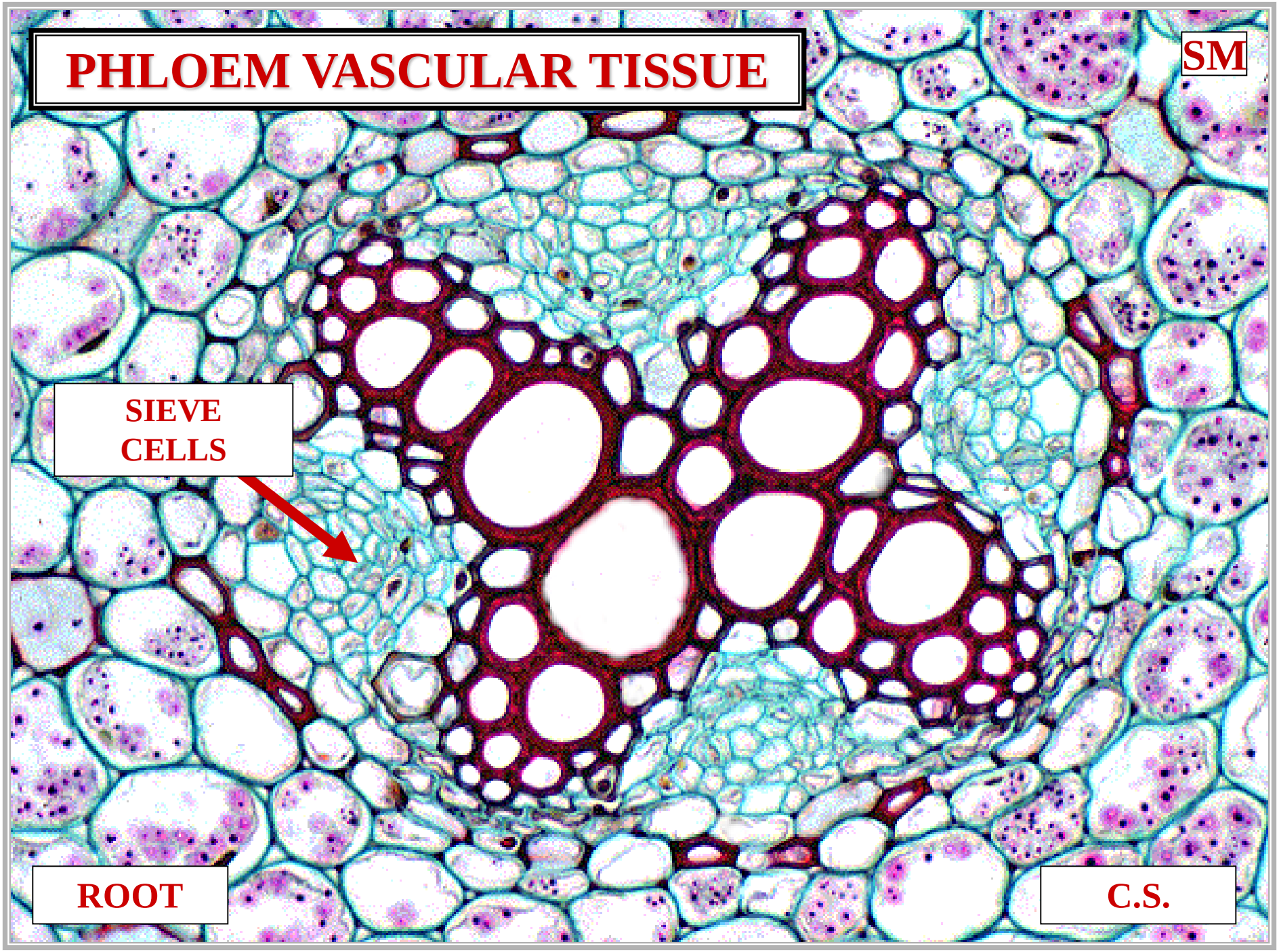
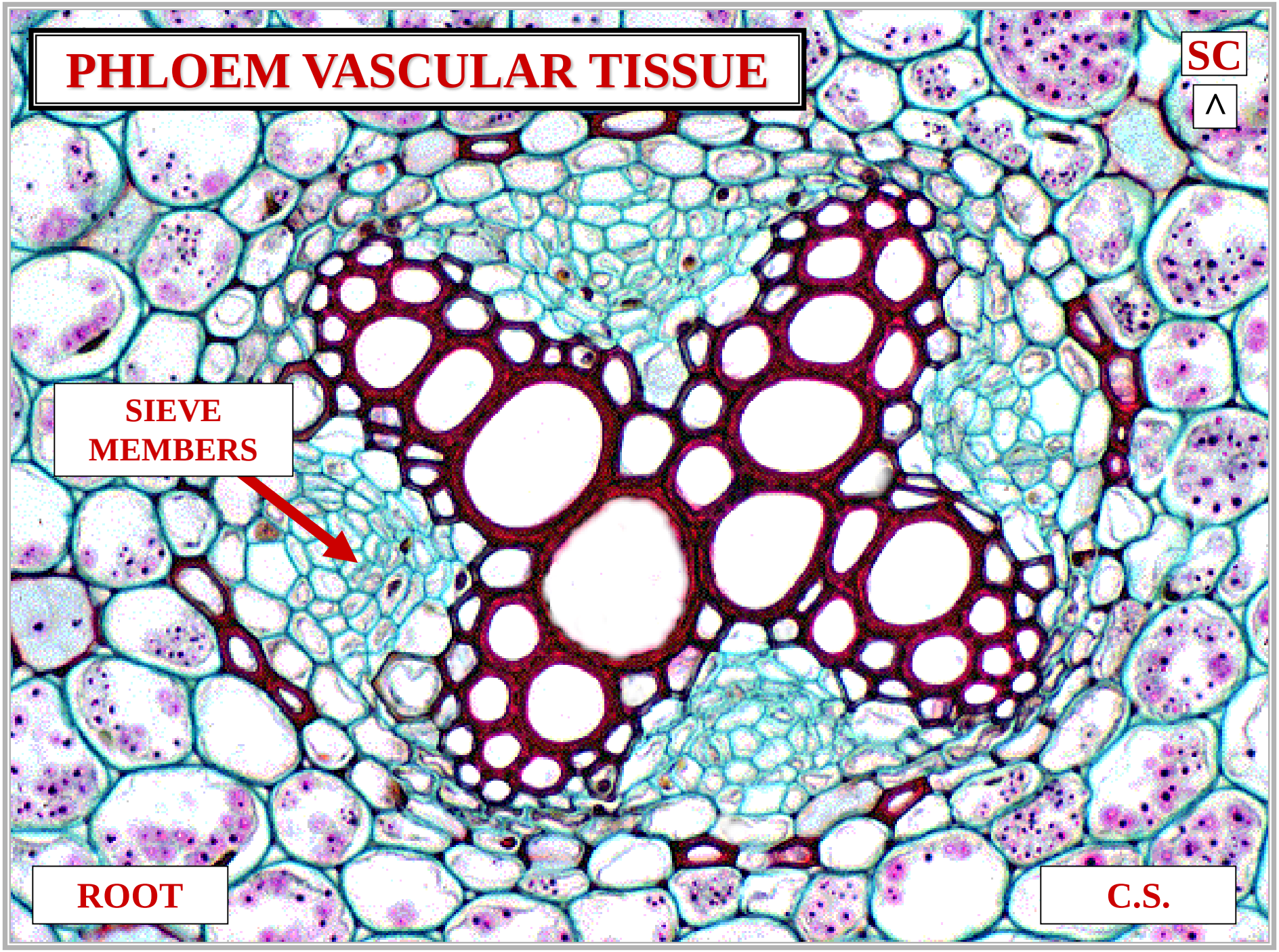
SC
SIEVE ELEMENTS
ROOT
C.S.

PHLOEM VASCULAR TISSUE

SM




PHLOEM VASCULAR TISSUE
SC
^
SIEVE MEMBERS
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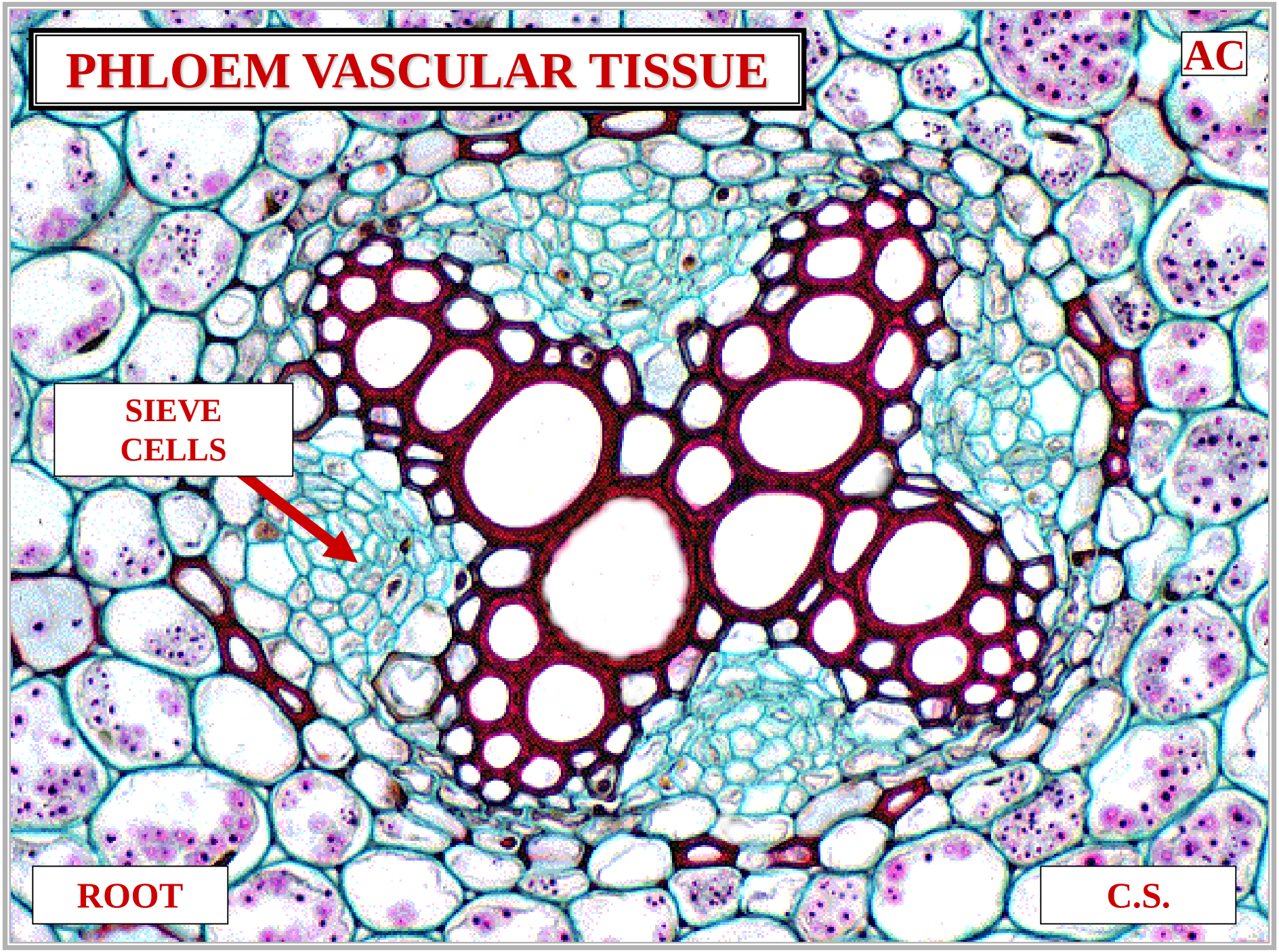
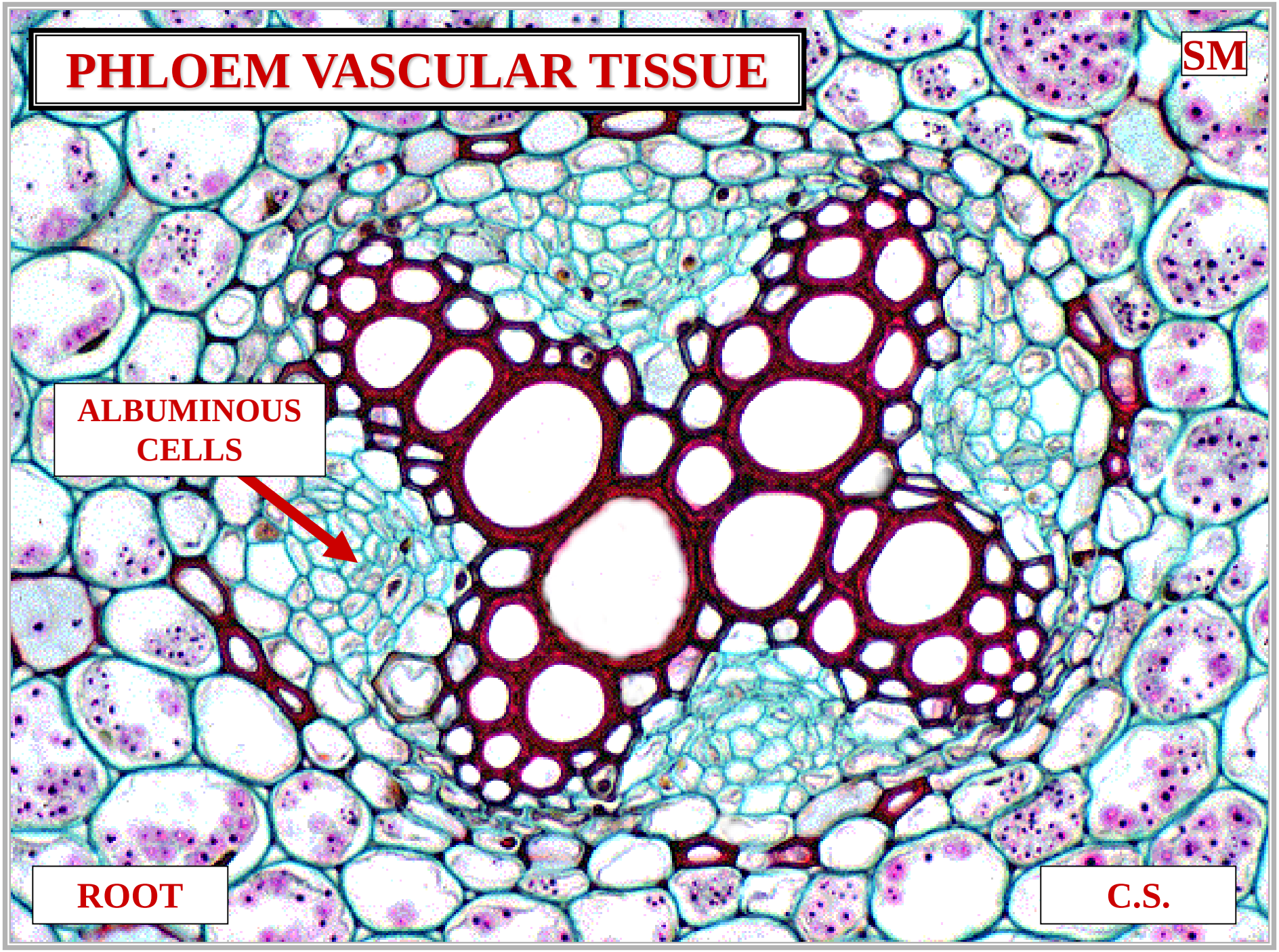
C.S.


PHLOEM VASCULAR TISSUE
AC
SIEVE CELLS
ROOT
C.S.

PHLOEM VASCULAR TISSUE

SM



ROOT

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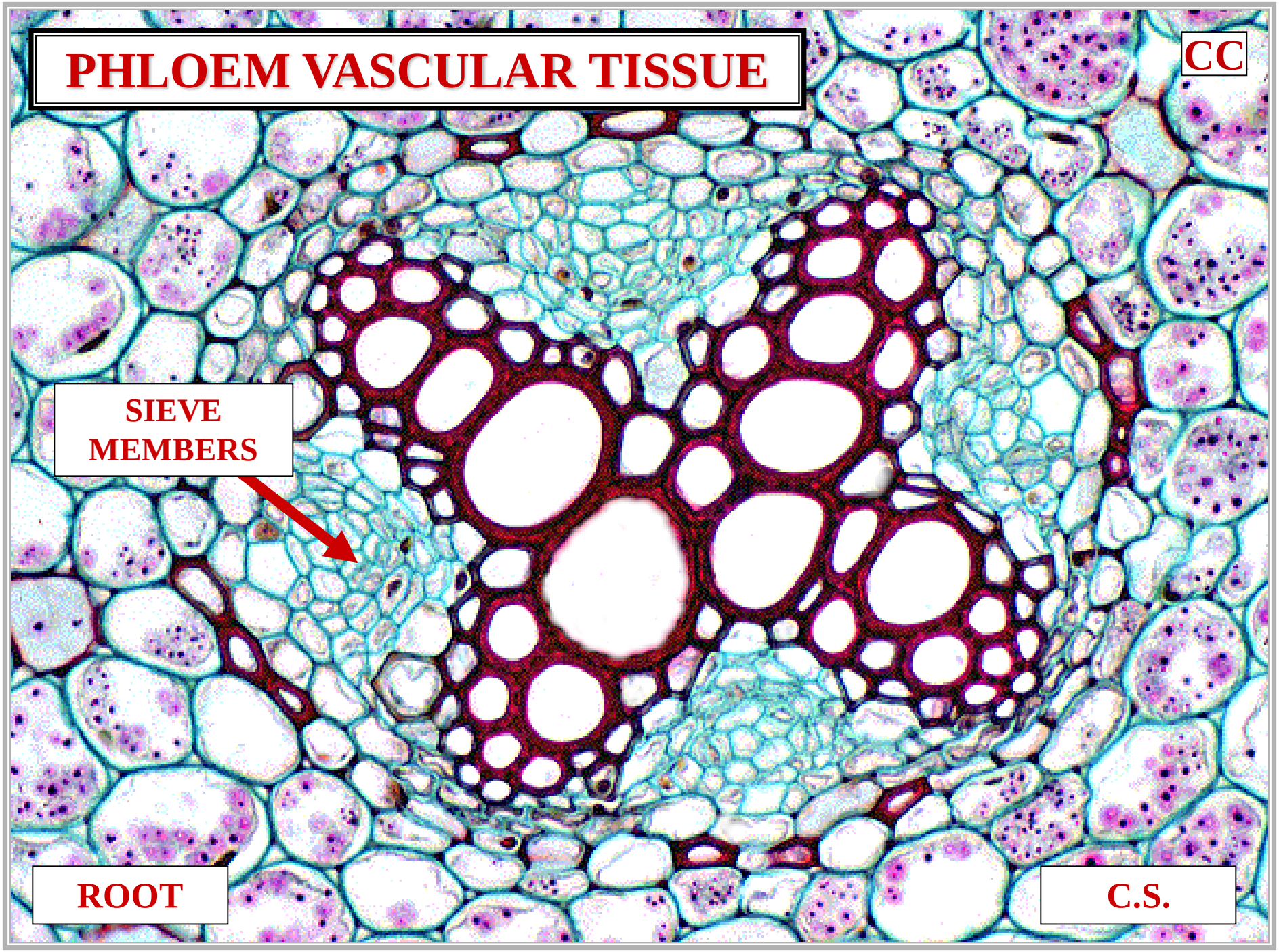
PHLOEM VASCULAR TISSUE
CC
SIEVE MEMBERS
ROOT
C.S.