

Anatomical identification and dendrochronological dating of wood from coffins below St. James Church in Brno

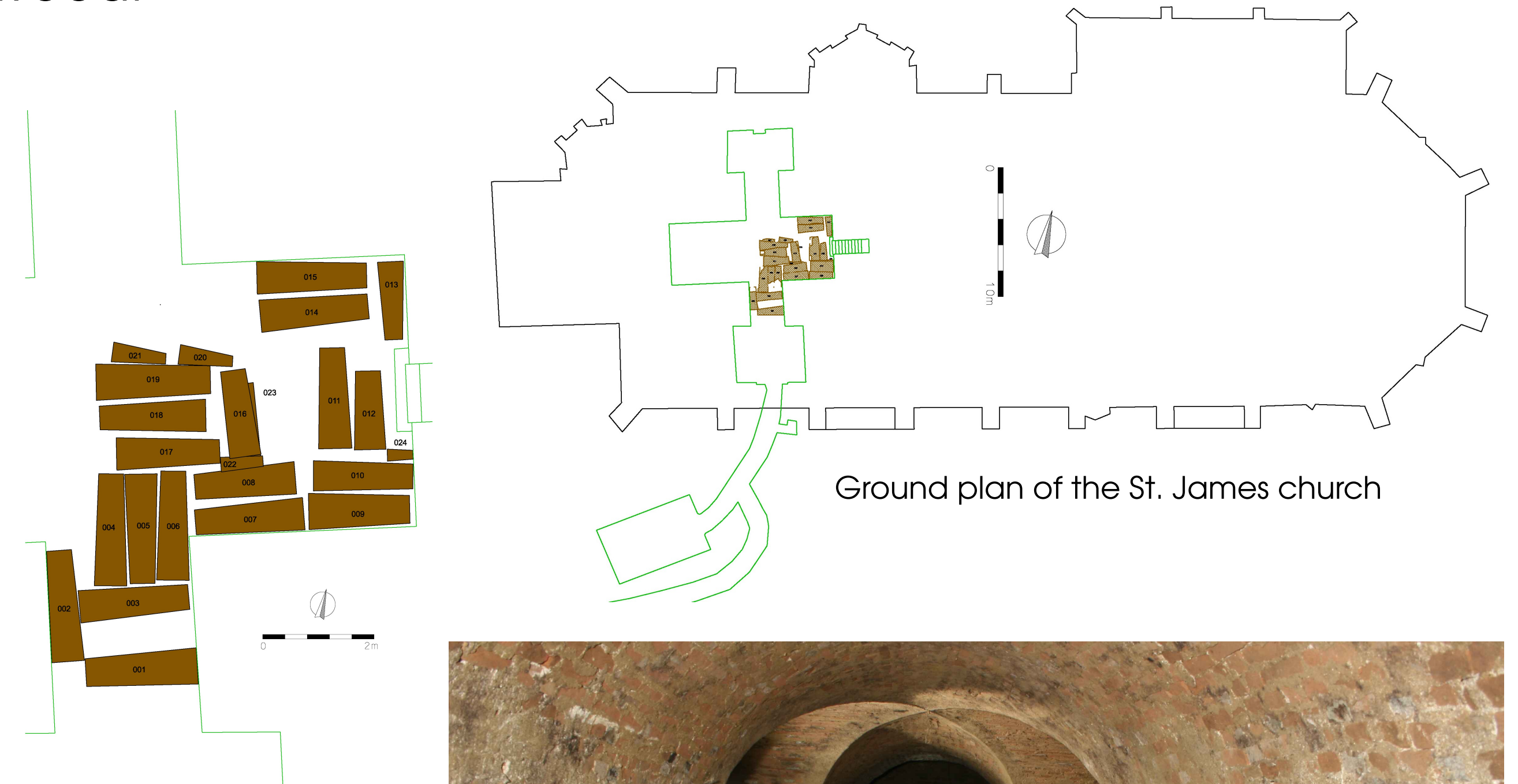
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GOAL

The goal of the work was to date coffins using dendrochronological methods and identify the wood species of coffin parts.

METHODS

Individual findings were sampled and described in detail during the archaeological research into the crypt. Wood samples were dated in compliance with the standard dendrochronological methodology and wood species were identified on the basis of the microscopic character of wood.



Ground plan of the St. James church

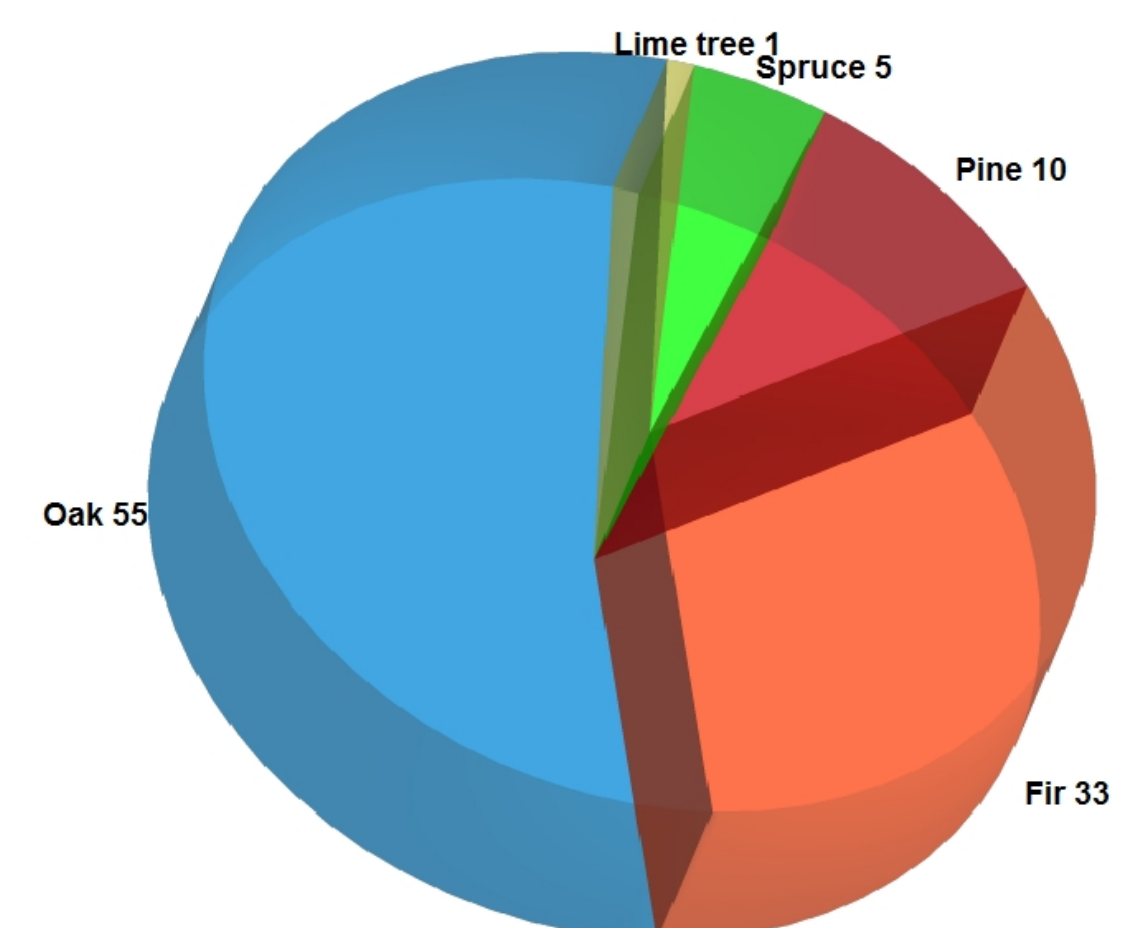


RESULTS

In total, there were 24 coffins in the crypt and they were made of 255 elements (most often 10-11 element per a coffin). Coffins were made of oak, fir, pine, spruce and once lime was used. There were shavings and sawdust in most of the coffins, used as filling. The anatomical analyses revealed that the shavings came from four species - oak, spruce, fir and pine.



Proportion of species used for coffin elements.



coffin number	length [cm]	max. width [cm]	max. height [cm]	joint of constructional elements	individual	dating of coffin
901	201	61	54	nails	man – 171 cm	after 1761
902	> 140	58	48	pins	man – 171 cm	after 1754
903	185	64	53	probably pins	man – 162 cm	–
904	184	–	–	nails and glue	probably woman – 154 cm	after 1735
905	> 140	58	> 28	probably pins	man – 169 cm	–
906	> 134	–	–	nails	probably woman – 151 cm	–
907	194	64	45	nails	probably woman – 151 cm	–
908	180	64	–	nails	adult	–
909	179	65	54	nails and glue	probably man	–
910	177	60	50	nails and glue	probably woman	after 1719
911	185	60	–	probably pins and glue	woman – 163 cm	1775–1794
912	146	54	> 30	nails	child – 138 cm	after 1735
913	139	43	36	pins	girl – 130 cm	–
914	190	–	–	probably pins	woman – 158 cm	after 1750
915	190	–	–	nails	man – 166 cm	after 1754
916	155	–	–	nails	child – 138 cm	after 1763
917	185	–	–	nails	adult	after 1705
918	188	–	–	probably pins	man – 174 cm	after 1763
919	205	–	–	nails	man – 180 cm	after 1762
920	90	–	–	pins	boy – 78 cm	after 1741
921	–	–	–	–	–	–
922	72	–	–	pins	child – 58 cm	–
923	140	–	–	probably pins	child	after 1714
924	53	–	–	nails	prenatal child – 33 cm	–

CONCLUSIONS

- The coffins were dendrochronologically dated mostly to the second half of the 18th century.
- One coffin was usually made from one species or as a combination of two species.
- The coffins were made of oak and fir mainly.
- The shavings were oak, fir, pine and spruce.

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