**Supporting Information**

**The ancient Chinese civilization left remarkable signals in the marine environment since the Bronze Age**

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Figs. S1 to S3

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Legend for data files S1

SI References



**Fig. S1. The trend of char at the sediment core ZY2 with 50% loess regression.**

**Fig. S2. Comparison of millennial-timescale variation of BC records from the ZY2 with other records since 6.2 ka BP.** (a) Fire activities recorded by BC from the sediment core at Daihai Lake (1); (b) Fire activities recorded by BC from the ECMZ sediment core in the inner shelf of East China Sea (2); (c) Fire activities recorded by charcoal from the sediment core at Zoige Basin (3); (d) Fire activities recorded by char from the sediment core ZY2 at South Yellow Sea (this study).

**Fig. S3. The outliers in the relationship between soot and char during 1.88-2.9 ka BP and 4-6.2 ka BP, respectively.**

**Table S1. The Dating data of sediment core ZY2 (4).**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Depth(cm) | Conventional 14C age/yr BP | 14C age SD | Calendarage/cal yr BP | Range(2σ yr BP) |
| 67.5 | 1825 | 30 | 1360 | 1287-1457 |
| 128.5 | 2345 | 40 | 1964 | 1861-2089 |
| 237.5 | 3955 | 40 | 3947 | 3831-4072 |
| 272.5 | 4450 | 45 | 4633 | 4499-4792 |
| 330 | 5555 | 40 | 5941 | 5857-6082 |

**Table S2. The correlations between BC (this study), average grain size, clay, silt, and sand (4).**

|  |  |  |  |
| --- | --- | --- | --- |
| *R2*(*P* < 0.1) | BC | char | soot |
| Average grain size | 0.015 | 0.011 | 0.068 |
| Clay | 0.029 | 0.024 | 0.041 |
| Silt | 0.043 | 0.038 | 0.030 |
| Sand | 0.021 | 0.028 | 0.068 |

**Data file S1. The BC data of the sediment core ZY2.**

**SI References:**

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