Post-Congress Tour 1：Scientific Expedition on Red Soil in South China

June 13-16, 2026

Tour leaders

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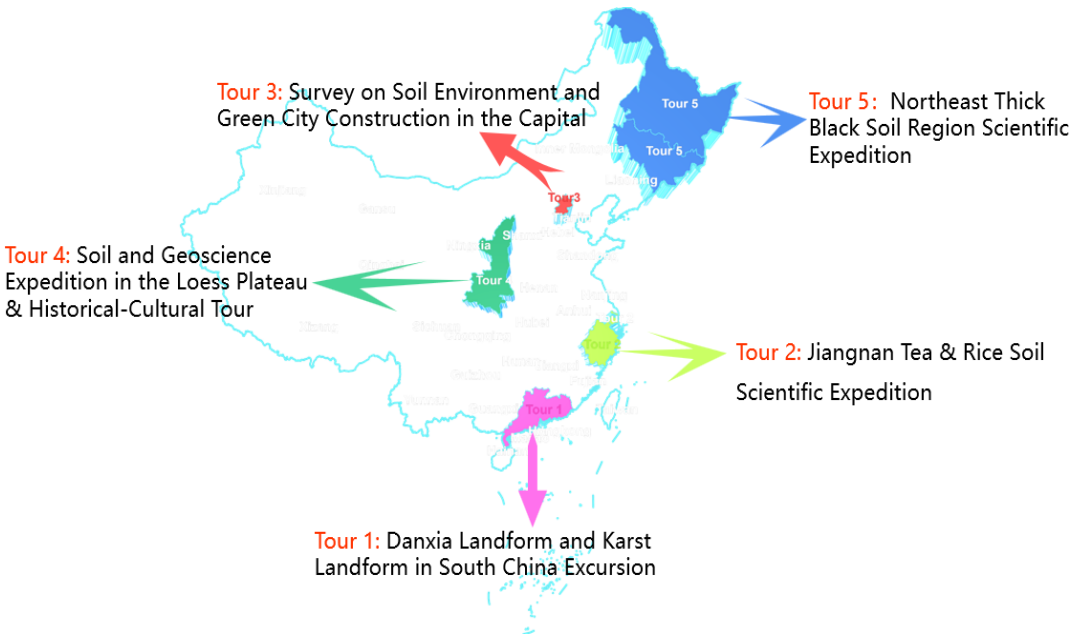
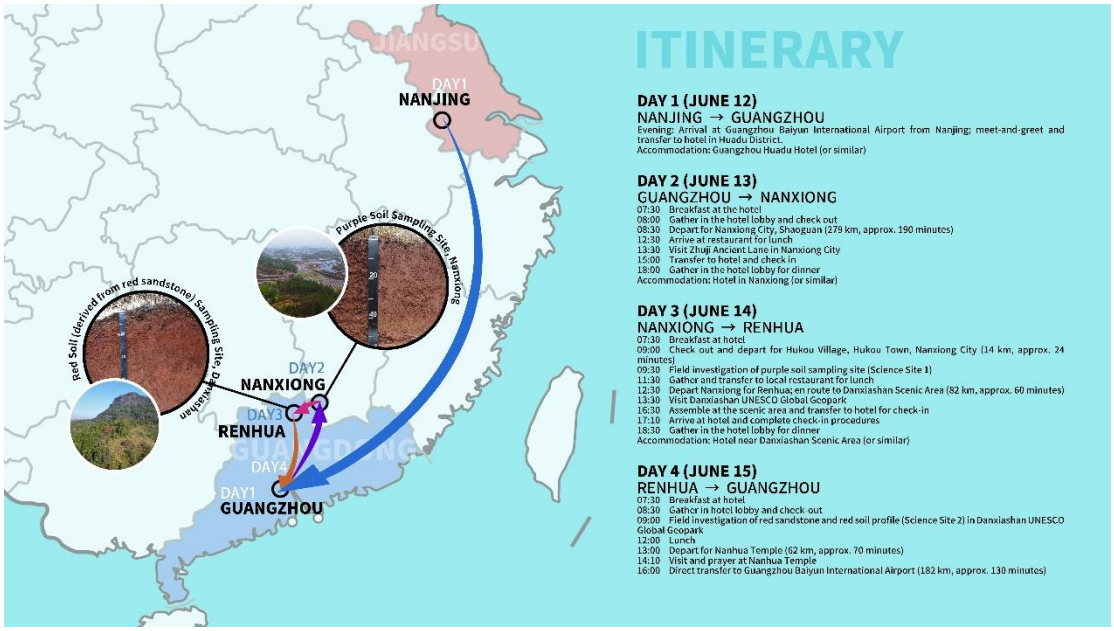
PROGRAM:

Tour 1: Scientific Expedition on Red Soil in South China

A four-day scientific expedition exploring purple soils in Nanxiong and red sandstone–derived red soils in the Danxiashan UNESCO Global Geopark, interwoven with the rich cultural heritage of northern Guangdong. The journey begins with an evening arrival in Guangzhou on Day 1, followed by a full day in Nanxiong on Day 2—including a visit to the historic Zhuji Ancient Lane, a landmark of Hakka and Cantonese migration history. Day 3 features field investigations at a purple soil site near Hukou Village and an afternoon exploration of the iconic Danxiashan UNESCO Global Geopark, renowned for its spectacular red-bed landforms. On Day 4, participants examine red soil profiles within the geopark before visiting the serene Nanhua Temple—the ancestral temple of Chan Buddhism—concluding with a direct transfer to Guangzhou Baiyun International Airport. This expedition seamlessly blends pedological fieldwork, geological wonder, and historical depth across the diverse landscapes of northern Guangdong.





Price: USD 600 or CNY 4000 per person.

The quoted price includes:

- **Transportation:**
  - 41–45 seat air-conditioned coach for all 4 days (including tolls, fuel, and parking fees).
  - Airport pickup at Guangzhou Baiyun International Airport in the evening of Day 1. All ground transfers as per the itinerary.
- **Accommodation:**
  - 3 nights in local 4-star standard hotels (double room per person; single supplement applies if requested, extra charge USD 150 or CNY 950 per person).
- **Meals:**
  - 3 breakfasts (served at the hotel) and 7 lunches/dinners (standard Chinese set menu, CNY 100 per person per meal, 10 persons per table).
- **Entrance Fees:**
  - Admission tickets to all scheduled attractions listed in the itinerary.
- **Guide Service:**
  - One professional English-speaking tour guide throughout the trip (including guide service fee).
- **Insurance**: CNY 500,000 personal travel accident insurance.

DAY 1 (Friday, June 13, 2026)

Evening: Arrival at Guangzhou Baiyun International Airport from Nanjing; meet-and-greet and transfer to hotel in Huadu District.

Accommodation: Guangzhou Huadu Hotel (or similar)

DAY 2 (Saturday, June 14, 2026)

07:30 Breakfast at the hotel

08:00 Gather in the hotel lobby and check out

08:30 Depart for Nanxiong City, Shaoguan (279 km, approx. 190 minutes)

12:30 Arrive at restaurant for lunch

13:30 Visit Zhuji Ancient Lane in Nanxiong City

15:00 Transfer to hotel and check in

18:00 Gather in the hotel lobby for dinner

Accommodation: Hotel in Nanxiong (or similar)

DAY 3 (Sunday, June 15, 2026)

07:30 Breakfast at hotel

09:00 Check out and depart for Hukou Village, Hukou Town, Nanxiong City (14 km, approx. 24 minutes)

09:30 Field investigation of purple soil sampling site (Science Site 1)

11:30 Gather and transfer to local restaurant for lunch

12:30 Depart Nanxiong for Renhua; en route to Danxiashan Scenic Area (82 km, approx. 60 minutes)

13:30 Visit Danxiashan UNESCO Global Geopark

16:30 Assemble at the scenic area and transfer to hotel for check-in

17:10 Arrive at hotel and complete check-in procedures

18:30 Gather in the hotel lobby for dinner

Accommodation: Hotel near Danxiashan Scenic Area (or similar)

DAY 4 (Monday, June 16, 2026)

07:30 Breakfast at hotel

08:30 Gather in hotel lobby and check-out

09:00 Field investigation of red sandstone and red soil profile (Science Site 2) in Danxiashan UNESCO Global Geopark

12:00 Lunch

13:00 Depart for Nanhua Temple (62 km, approx. 70 minutes)

14:10 Visit and prayer at Nanhua Temple

16:00 Direct transfer to Guangzhou Baiyun International Airport (182 km, approx. 130 minutes)

Trip ends upon arrival at Guangzhou Baiyun International Airport

SITE 1: Zhuji Ancient Lane, Nanxiong

BACKGROUND:

- Located in Nanxiong City, Guangdong Province, Zhuji Ancient Lane is a historically significant site regarded as the ancestral home for many Hakka and Cantonese lineages.
- The area preserves traditional architecture, ancestral halls, and stone-paved pathways, reflecting centuries of migration, settlement, and cultural heritage in southern China.
- Situated in a region characterized by purple soil derived from sandstone and shale, the site offers insights into the interplay between human history and local pedoenvironments in northern Guangdong.

Fig. 1-1

Fig. 1-2

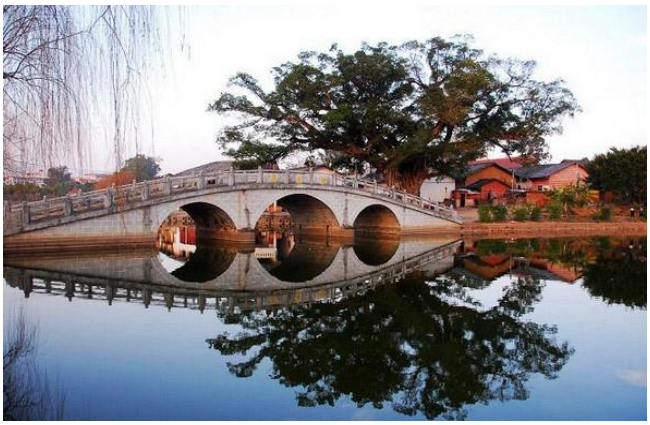


Fig. 1-3

SITE 2: Purple Soil Sampling Site, Nanxiong (Science Site 1)

BACKGROUND:

- Located in Nanxiong City, northern Guangdong Province, this site represents a classic area of purple soil development in South China.
- The region is underlain by Mesozoic purple sandstone and shale, which weather rapidly to form fertile, mineral-rich soils supporting agriculture and unique local ecosystems.
- These purple soils are typically neutral to slightly alkaline, with high levels of potassium, phosphorus, and calcium, reflecting the geochemical properties of their parent materials and the subtropical monsoon climate.

PROFILE DESCRIPTION：

Pit 1: Nanxiong Purple Soil Profile

Theme: Soil formation on purple clastic sedimentary rocks in a subtropical humid environment

Genetic explanation of soil profile morphology:
WRB: Udic Cambisol（Calcaric, loamy）
ST: Course-loamy, mixed, hyperthermic, Lithic Eutrudept
GSCC: loamy calcareous purple soil

This soil type occurs on gentle slopes and terraces derived from Cretaceous purple sandstone and mudstone. The profile shows minimal horizon differentiation due to rapid weathering and active pedogenesis yet retains vivid purple-red coloration throughout. It features a shallow A horizon overlying unconsolidated or semi-weathered purple parent material. Located in Nanxiong City, Shaoguan, Guangdong Province.

Position: 114°18′25.3″E, 25°06′42.1″N

Morphological descriptions

Horizon	Depth(cm)	Soil Texture	pH	CEC	Exchange base	Totle Fe%	DCB-Fe(g/kg)
Ap1	0-18	Sandy loam	7.67	8.26	7.87	2.31	11.2
Ap2	18-39	Sandy loam	7.88	8.10	7.79	2.50	11.8
Bw	39-50	Sandy clay loam	7.61	9.12	8.47	2.79	14.9
R	50-	-	-	-	-	-	-

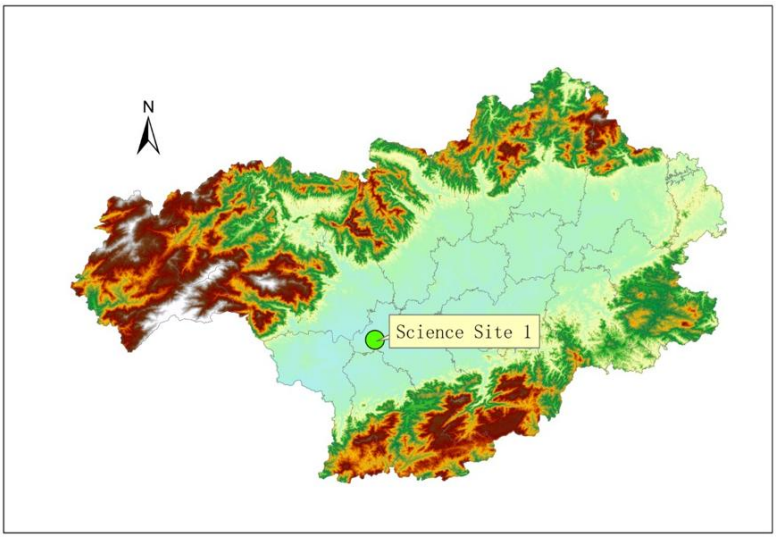


Fig. 2-1

Fig. 2-2

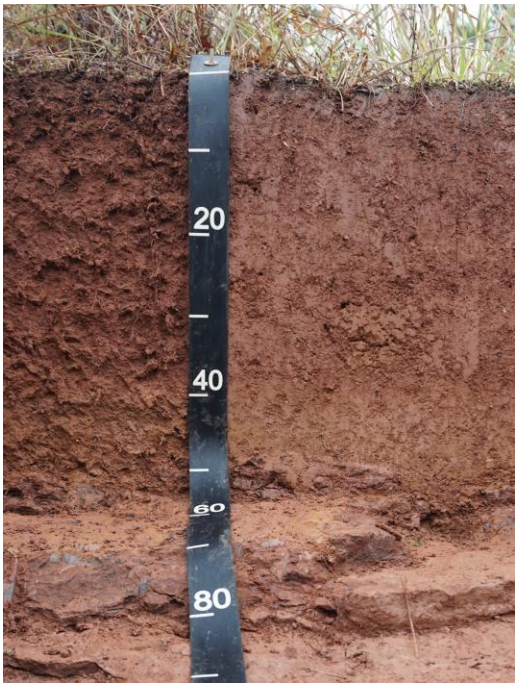


Fig. 2-3

SITE 3: Danxiashan UNESCO Global Geopark

BACKGROUND:

- Located in Renhua County, Shaoguan City, Guangdong Province, Danxiashan is a UNESCO Global Geopark renowned for its spectacular red sandstone landforms and unique geological heritage.
- The area features dramatic cliffs, peaks, caves, and valleys shaped by millions of years of tectonic uplift, weathering, and erosion, embodying the iconic “Danxia landform” that defines a distinct geomorphological type in China.
- The park sits on Cretaceous red clastic sedimentary rocks, giving rise to red soils (red earth) that influence local vegetation patterns and soil development, offering valuable insights into the coupling of geology, pedogenesis, and ecosystem evolution in subtropical southern China.

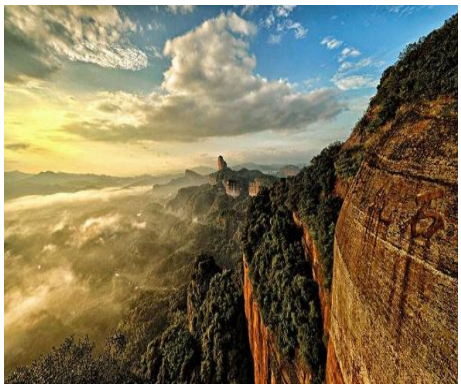


Fig. 3-1

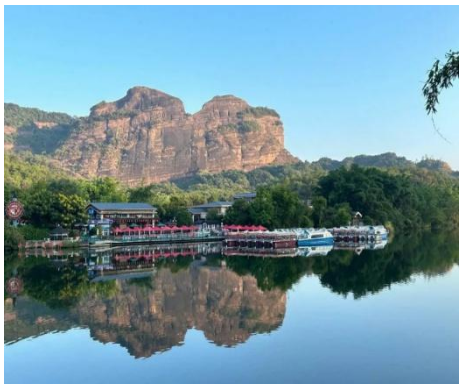


Fig. 3-2

Fig. 3-3

SITE 4: Red Sandstone and Sandy Red Soil Sampling Site, Danxiashan UNESCO Global Geopark (Science Site 2)

BACKGROUND:

- Located within the Danxiashan UNESCO Global Geopark in Renhua County, Shaoguan City, Guangdong Province, this site exemplifies the distinctive red soil systems developed on Cretaceous red clastic sedimentary rocks.
- The area is characterized by thick sequences of red sandstone, conglomerate, and mudstone deposited in ancient continental basins, which have undergone intense weathering under a subtropical monsoon climate to form deep, well-drained, iron-rich soils.
- These red soils (classified as Ferric Acrisols or Red Earths in Chinese Soil Taxonomy) are typically acidic, low in organic matter but rich in iron and aluminum oxides, supporting specialized vegetation adapted to nutrient-poor conditions and playing a key role in the ecological resilience of the Danxia landscape.

PROFILE DESCRIPTION：

Pit 2: Danxia Red Soil Profile

Theme: Pedogenesis on red sandstone parent material in a humid subtropical environment

Genetic explanation of soil profile morphology:

WRB: Udic Acrisol （Coarse-loamy）

ST: Coarse-loamy, mixed, acidic, hyperthermic, Typic Hapludalf

GSCC: Red sandstone red soil

This soil profile develops on steep to moderate slopes of the Danxia landform, derived from Cretaceous red sandstone. It exhibits clear horizonation with a bleached eluvial (E) horizon overlying a strongly reddish, clay-enriched illuvial (Bt) horizon, indicative of active clay translocation and iron oxide accumulation. The vivid red coloration throughout reflects high hematite content. Located in Danxiashan UNESCO Global Geopark, Renhua County, Shaoguan, Guangdong Province.

Position: 113°45′18.6″E, 24°57′33.2″N

Morphological descriptions

Horizon	Depth(cm)	Soil Texture	pH	CEC	Exchange base	Totle Fe%	DCB-Fe(g/kg)
Ah	0-7	Sandy loam	4.94	5.94	2.43	0.73	5.39
AB	7-18	Loamy sand	4.83	5.50	1.54	0.82	5.51
Bw1	18-49	Sandy loam	4.66	4.90	2.56	0.70	4.80
Bw2	49-70	Sandy loam	4.53	4.21	1.54	0.88	3.96
C	70-120	-	-	-	-	-	-

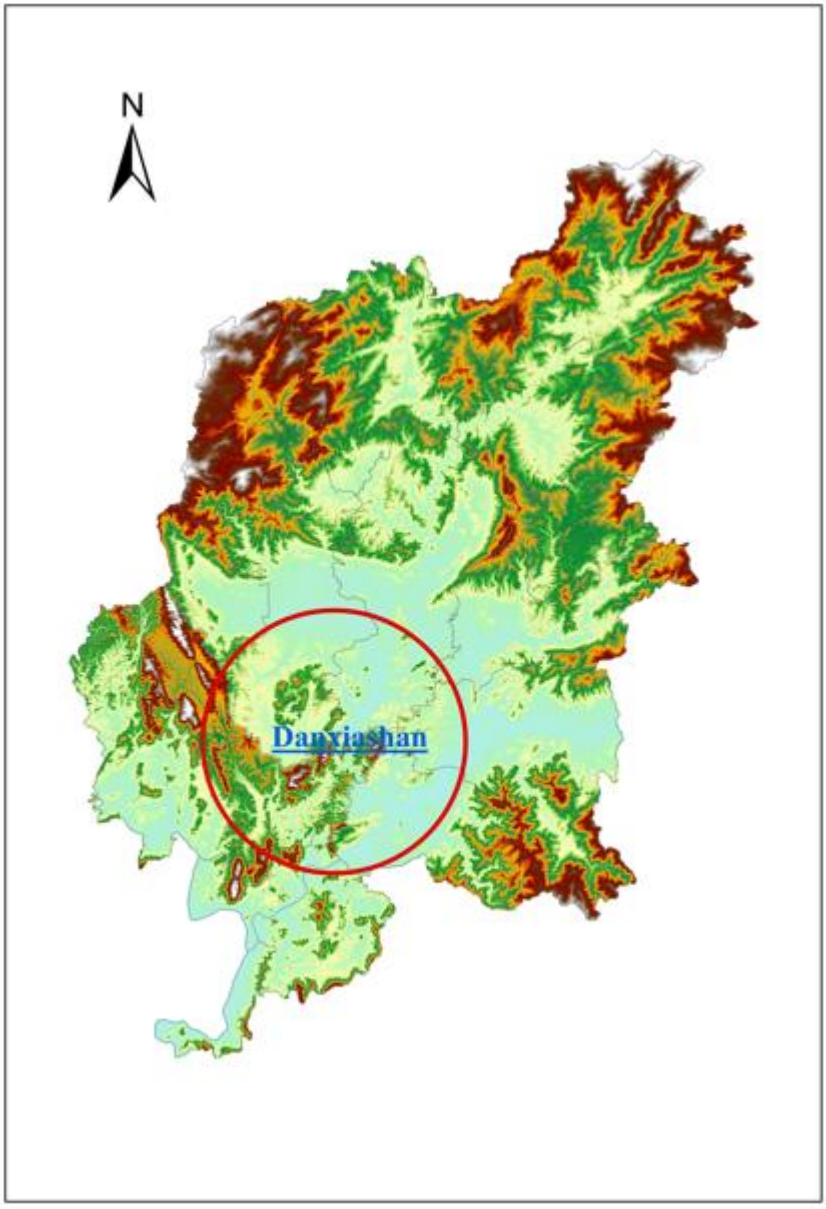


Fig. 4-1

Fig. 4-2

Fig. 4-3

Fig. 4-4

SITE 5: Nanhua Temple

BACKGROUND:

- Located in Qujiang District, Shaoguan City, Guangdong Province, Nanhua Temple is one of the most important Chan (Zen) Buddhist monasteries in China and the ancestral temple of the Sixth Patriarch, Huineng.
- Founded over 1,500 years ago during the Southern Dynasties, the temple preserves ancient halls, pagodas, and sacred relics, serving as a spiritual and cultural center that has profoundly influenced the development of Chan Buddhism in East Asia.
- Situated in a valley underlain by red sandstone and shale formations, the temple's surroundings feature well-drained, slightly acidic soils typical of northern Guangdong's subtropical landscape, illustrating the harmonious integration of religious heritage with its natural pedo-geological setting.

Fig.5-1

Fig.5-2

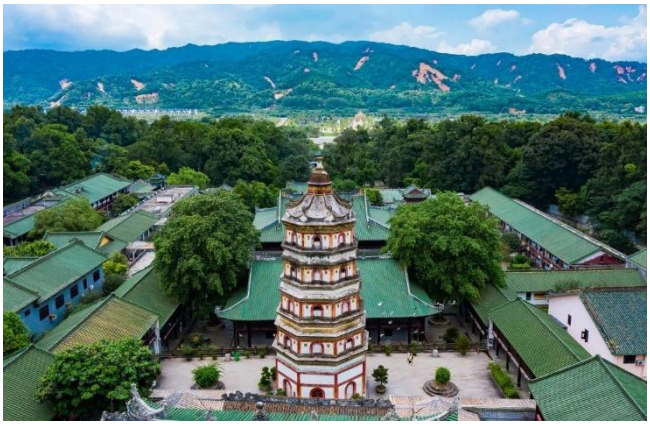


Fig.5-3

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  Yan, L., Peng, H., Zhang, S. *et al.* The Spatial Patterns of Red Beds and Danxia Landforms: Implication for the formation factors–China. *Sci Rep* **9**, 1961 (2019). https://doi.org/10.1038/s41598-018-37238-7
- **Other Information:**
  - Figs. 1-1 and 1-2 are sourced from https://www.gz.gov.cn/zlgz/whgz/content/post_8950102.html;
  - Fig. 1-3 is sourced from http://www.177dx.com/zjgx/NEWS_214.html;
  - Fig. 3-1 is sourced from https://www.yingxiahome.com/jinrirewen/3119.html;
  - Fig. 3-2 is sourced from https://www.sohu.com/a/750889955_100248844;
  - Fig. 3-3 is sourced from http://www.177dx.com/NEWS_464.html;
  - Fig. 5-1 is sourced from http://www.laozhaopian5.com/minguo/1192.html;
  - Fig. 5-2 is sourced from https://hk.trip.com/travel-guide/attraction/shaoguan/nan-hua-monastery-78522/;
  - Fig. 5-3 is sourced from https://pc.nfnews.com/2589/7860122.html.