



Designs on DINOSAURS

As excavations in Charente uncover a wealth of prehistoric remains, progress is being charted in comic-strip form, as **Rudolf Abraham** explains

The River Charente winds its way across the countryside of south-western France, slipping over a succession of weirs, the asphalt road crossing from one bank to the other by narrow old stone bridges. Willow and other trees overhang its banks, and children paddle in the shallows at shingly beaches. And, just a short distance away at the end of a dusty gravel road, lies one of the most significant dinosaur excavation projects anywhere in Europe.

The site at Angeac-Charente, west of Angoulême, sent palaeontologists into a frenzy when, in 2010, an enormous fossilised femur was discovered – 2.2 metres long, and once upon a time belonging to an as yet un-named species of sauropod (the family of antediluvian giants which includes diplodocus and brontosaurus). A copy of the femur – quite possibly, the largest dinosaur bone ever discovered anywhere in the world (although a similarly sized femur unearthed in Argentina vies for this accolade) –

stands at one end of a tent at Angeac during the excavation season, along with copies of various other finds.

Some 140 million years ago Charente, along with much of Europe, was still an archipelago in the middle of the vast Tethys Ocean. It was a place of tropical salt lagoons and swampy wetlands, where dinosaur remains were laid down and later buried under several kilometres of sediment. With the tilting of the Earth's crust millions of years later, the remains were brought closer to the surface once again, where they have since lain hidden beneath the alluvial deposits of the Charente.

Nowadays this area of Angeac forms part of a large quarry, from which aggregates (sand and gravel) are exported as far afield as the United Arab Emirates. Fortunately, the owner of the quarry, Jean-Marie Audoin, is enthusiastic about heritage and conservation, and allows the excavation to continue for a period each year, lending logistical support when needed.

The public entrance to the excavation site is around four kilometres north-west of Châteauneuf-sur-Charente. The gravel road leads to a small car park, where information boards tell the project's story. From here, a path leads down alongside the excavations themselves.

Beyond a wooden bridge, groups of dusty palaeontologists, students and volunteers work in a series of shallow pits, some of them sheltered from the sun by tarpaulin, and interspersed with several mounds of earth. A channel of water crosses the site, and the yellowish cliff above is pockmarked with small burrows, home to dozens of sandmartins which shoot in and out and swirl around in the late afternoon sun.

The sauropod femur is not the only sensational find at Angeac. "In the first two seasons, we uncovered so much in one small area, more than ➡



LEFT: A guide presents finds from the excavations at Angeac-Charente, during a visitor tour; **ABOVE:** A copy of the 2.2-metre dinosaur bone discovered at the site





ABOVE, FROM LEFT: Comic-strip artist Mazan in his studio at home; Mazan's wife Isabelle Dethan with Rudolf Abraham's daughter at the dig; One of the illustrations in the book *Mimo*; Looking for more dinosaur remains; **INSET:** Clearing a drainage channel

you would generally expect to find in five or six years," says Ronan Allain, head of conservation of the reptile and bird fossil collections at the Natural History Museum in Paris. Other discoveries include various bits of ornithomimosaur (a small, partly feathered dinosaur) and stegosaurus.

Excavation work takes place only in July; come at any other time of the year and the site (all of which lies below the water table) is submerged beneath a lake, which is drained before the four-week dig begins. This may not seem like much time, but in reality the finds at the dig are so numerous that they keep palaeontologists busy for the next 11 months. All the finds at Angeac are removed to the Musée d'Angoulême for conservation and further study. Some can be seen there, although at least for now, there simply isn't enough space to display more than a few objects from Angeac – and an exhibition of finds from the site is due to travel to La Rochelle and elsewhere.

The excavations are being documented by French *bande dessinée* (comic strip) artist Mazan, a prolific author who lives a ten-minute drive from Angeac. Together with his wife Isabelle Dethan (also a comic-strip artist and author of around 30 books herself), Ronan Allain, and Jean-François Tournepiche from the Angoulême museum, he has produced a book on the excavation, called *Mimo*.

The book tells of a young ornithomimosaur (Mimo of the title) and his friend Hector,

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a carcharodontosaurus – an amusing duo who are given the unenviable task of finding out what kind of monster is hiding in the river delta and devouring its other prehistoric inhabitants.

The book is divided into three sections – an illustrated story for children (*Mimo* and Hector), a catalogue of prehistoric beasts unearthed at Angeac-Charente and an illustrated account of the excavation, from the pages of Mazan's journals. The book is published by Eidola Editions, a small, local publisher. An English translation came out earlier this year, and a second volume has already been published in French.

The authors were given more or less *carte blanche* to develop the story based on what emerged from the excavations – a freedom unlikely to have been granted by a larger publisher. "I still don't know what will happen in the third volume," Mazan says, "it all depends on the excavations – and Angeac almost certainly still has a few surprises up its sleeve. As an author, that's exciting."

The fact that the dig is being documented in *bande dessinée* form underlines the respect accorded



to comic-strip art in France, where around 30 million comic books are sold each year and *bande dessinée* has the status of the ninth art (cinema and television are the seventh and eighth respectively).

“These excavations are a fantastic opportunity for me,” says Mazan, “an opportunity to develop my drawing in parallel both with the evolution of the site and the theories and assumptions about its past. It’s like a real-life Indiana Jones adventure, which I’m lucky enough to be part of.” He adds: “As a kid, I dreamed of being a palaeontologist. Now for a whole month, I get to dig for dinosaur bones, I get to meet leading dinosaur experts, I draw dinosaurs, I dream of dinosaurs.”

Mazan has been documenting the excavations at Angeac-Charente since 2010, and the contacts he has forged have led to him joining Ronan Allain on an excavation in Laos in south-east Asia.

Around 3,000 visitors come to the excavation site at Angeac-Charente during July. Tours are free, although donations to the volunteer guides (all members of the excavation team) are welcome. Mazan is generally on site to sign and dedicate copies of *Mimo* and other books.

Isabelle Dethan, who wrote the story for *Mimo*, said: “For me as a comic-strip artist, Angeac always provides a moment to pause and reflect – the rhythm of life is totally different here: I’m not so preoccupied with the same things. I still draw, of course, but I approach my work differently – and

above all, I dig; I get my hands dirty in the clay.”

Youngsters can have a great time at Angeac as there are special children’s tours (also free). Best of all – according to my six-year-old daughter Tamara – each gets to make a plaster cast of a fossilised ammonite, dinosaur fang or similar, to take home. Then, after enjoying cake and a drink, they excavate some suitably impressive fossils (well, copies at least) themselves. It’s all great fun, and ➡➡

SAME
PLACE,
DIFFERENT
PACE

Visit Angoulême – capital of the *bande dessinée*

Angoulême is, put simply, the comic-strip centre of the world. The Musée de la Bande Dessinée, part of the Cité Internationale de la Bande Dessinée et de l’Image, is housed within a group of renovated former storehouses on the bank of the River Charente (tel: (Fr) 5 45 38 65 65, www.citebd.org). The spacious interior displays original pages from all periods of comic-strip art, and also has a bookshop and interactive section.

The annual *Festival International de la Bande Dessinée* (tel: (Fr) 5 45 97 86 50, www.bdangouleme.com) will be held on 26-29 January, 2017. This huge event attracts around a quarter of a million visitors – twice the number of the largest comics fair in the United States.



ABOVE: Workers clear water after a storm

the copious quantities of coprolites unearthed (that's fossilised dinosaur poo to you and me) are bound to induce giggles. My daughter was suitably thrilled when her persistent digging revealed a femur, while the little boy next to her unearthed a crocodile skull.

"What really sets Angeac apart," says Ronan, "is not just the quality and quantity of finds, but the longevity of the excavation – this is not just a short one- or two-year campaign, but year after year, as the story of the site gradually unfolds."

On my third day at Angeac, the weather switches unexpectedly from relentless sun and temperatures in the high 30s to a sudden deluge and storm. With most of the excavation site being below the water table, it floods almost immediately. The water does not damage the finds – it's what has protected them over millennia – but it does put a stop to digging for that day, and the team begins scooping the water out with buckets to supplement the pumps.

Disappearing act

The landscape which surrounds Châteauneuf-sur-Charente is carpeted with vineyards, mostly growing the colombar grape which forms the primary component of the favourite local aperitif, Pineau des Charentes. Emmanuel Rivière (the owner of Pineau Francois 1er, maker of exquisite pineau and a keen dinosaur enthusiast) can often be seen doing a bit of digging on the excavation site. Standing beside new and old vines on a gently sloping hillside one evening after the excavations have finished, he gestures towards the flat, alluvial plain below, created by the Charente – two completely different environments, one perfect for growing grapevines, the other exceptional for finding dinosaur remains.

I remain at Angeac for five days, as bits of stegosaurus and a plethora of fossilised dinosaur footprints are extracted from the earth. Then, at the end of July, the site is flooded once more and disappears beneath a lake for another year, protected from decomposition and fossil hunters, leaving only the sand martins to flit in and out of their burrows in the yellow cliff above. 🐦

Francofile

Find your way around the dinosaur country of Charente



GETTING THERE

By rail: The journey from London to Angoulême via Paris takes from 6hr (tel: 0844 848 5848, www.voyages-sncf.com).

A local train to Châteauneuf-sur-Charente takes 20 minutes.

By road: Châteauneuf-sur-Charente is a 7hr drive from the northern ferry ports.

By air: The nearest airports are at Limoges and La Rochelle (both about 1hr 30min away).

WHERE TO STAY AND EAT

Rudolf ate at:
La Tonnellerie
Chemins des Quais
16120 Châteauneuf-sur-Charente

Tel: (Fr) 5 45 65 10 72
Nice little riverside restaurant (pictured below) serving *magret de canard*, a tasty *gratin d'aubergines* and *salades gourmandes*, and other dishes (the coronation chicken gives away the fact that the restaurant is English-owned). Dinner menus from €30. They also offer tastefully furnished rooms.



Also try:

The most upmarket table in the Châteauneuf-sur-Charente area is the highly regarded Graines et Garenne (menus from €30, 9 Route de Roulet, tel: (Fr) 5 45 62 06 48, www.graines-et-garenne.fr). In Angoulême, try La Bulle Gourmande (lunch menu €13.50, mains from €12.50, 52 Rue de Genève, tel: (Fr) 5 45 92 71 34, www.restaurantlabullegourmande.com). For a place to stay, Hôtel Mercure (doubles from €99, Place des Halles, tel: (Fr) 5 45 95 47 95, www.mercure.com) has smart rooms and a central location in the town.

FOR AN APÉRO

What better place to enjoy Pineau des Charentes than in the cellar of one of the oldest producers? Pineau Francois 1er (Le Domaine des Gâtinauds, Angeac, tel: (Fr) 5 45 97 02 66, www.pineaufr.com) uses traditional charcoal burners in the distillery. Emmanuel and Dominique Rivière make white and rosé pineau, fruit liqueurs and a 40-year-old Pineau

Prestige. Tours and *dégustations* by appointment.

WHERE TO VISIT

Angeac excavations: The best source of information is Mazan's blog, Petit Carnet Paleo (<http://petitcarnetpaleo.blogspot.co.uk>).

Le Musée d'Angoulême, Rue Corneille (tel: (Fr) 5 45 95 79 88, <http://musee-angouleme.fr>)

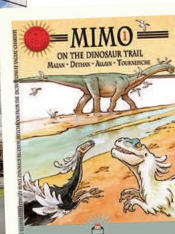
● Beautiful Romanesque churches and abbeys line the countryside – among them the Benedictine Abbaye de Saint-Amant de Boixe (tel: (Fr) 5 45 94 24 27, www.abbaye.saintamantdeboixe.fr).

● As most of the landscape is given over to viticulture, there are many opportunities for sampling and buying Pineau des Charentes.

● Châteauneuf-sur-Charente has its own sandy beach by the river, the Bain des Dames. It's great for families as the area is roped off and the waters are shallow.

READING

The first volume of *Mimo*, in an English translation by Rudolf Abraham, is available from Eidola Editions, priced €10 (<http://eidola.fr/livres/mimo-1-anglais>).



TOURIST INFORMATION: Angoulême tourist office, tel: (Fr) 5 45 95 16 84, www.angouleme-tourisme.co.uk; Châteauneuf-sur-Charente tourist office, tel: (Fr) 5 45 97 13 32, www.tourisme-chateauneufsurcharente.com; Poitou-Charentes tourist board, tel: (Fr) 5 49 55 77 00, www.visit-poitou-charentes.com