



CANDIDATE DRUG FOR BIPOLAR DISORDER

A designed alternative to lithium shows early promise.

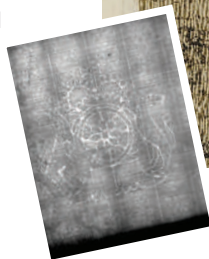
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SNAPSHOT Marks of distinction

During the eighteenth century, Giovanni Domenico Tiepolo (son of the more famous Giovanni Battista Tiepolo) was commissioned by the prince-bishop of Würzburg to depict the biblical story of the flight of the Holy Family from King Herod. But did he start the series of 24 etchings, called *The Flight into Egypt*, in his hometown of Venice, Italy, or only after he arrived in Würzburg, Germany, at around 1750?

Art historians in Freiburg, Germany, have now acquired the technology to help them solve this long-standing mystery. The method allows watermarks to be seen *in situ* without damaging the paper in which they are embedded. It was developed by scientists at the Technical University Braunschweig and the Fraunhofer Institute for Wood Research, also in Braunschweig, and was first tested last year on Rembrandt sketches.

Paper mills have characteristic watermarks that are visible when the paper is held to the light, although not when they are



obscured by ink. X-ray analysis can be used to identify obscured watermarks, but it needs special conditions to protect the paper from radiation. Delicate materials therefore usually need to be transported, and museum curators are often reluctant to do this.

In the new method, a plate warmed to 35–40 °C is placed

behind the paper for one second, during which an infrared camera captures the heat passing through it. The outline of the watermark is revealed because it lets more heat through than does the rest of the paper. The picture here illustrates an early etching for the series, together with its watermark (inset), as exposed by the thermography technique.

It is part of the exhibition *Giandomenico Tiepolo: The Flight into Egypt*, which opens this week and runs until 16 September at the Augustiner Museum in Freiburg. All the watermarks stem from a paper mill not far from Würzburg, so Domenico almost certainly started work on the series after he arrived in Germany.

Alison Abbott



H.-P. VIESER/AUGUSTINERMUSEUM

French universities to gain control

“In the race against Stanford, Cambridge or Harvard, French universities run with their laces tied together and a backpack full of stones.” So said Nicolas Sarkozy in the run-up to the French presidential election, as he pledged to reform the country’s archaic university system. As the new president, Sarkozy has now personally weighed in on a reform bill that will be fast-tracked through parliament this summer.

The bill, adopted by the cabinet on 4 July, is historic as it would make France’s 85 public universities much more independent, largely freeing them from the current centralized state control.

Sarkozy has also confirmed that universities will receive an extra €5 billion (US\$ 6.8 billion) over the next five years. Most people agree that this sum, and much more, is badly needed. Whereas the elite *Grandes Ecoles* — which

scoop the best few per cent of students — are well-heeled, the underfunded universities must cope with most of the remainder.

The bill would allow universities to own and manage their own buildings, to control their budgets, and to hire and set salaries as they see fit, all of which are currently controlled by the science and higher-education ministry. At present, a star biologist might earn no more than a philosopher of the same bureaucratic grade. Top international research talent often passes French universities by.

The bill would also modernize governance. University presidents have had few real powers, and whereas Anglo-Saxon universities typically form committees to headhunt the best leader, in France the presidents are elected by

130 members of the various university panels, and can serve only one four-year term. The university’s direction is decided largely by a 60-strong board of directors that is often highly politicised.

Under the new law, the board would be streamlined to 20–30 people, with an absolute majority agreeing on a president. The president, elected for a maximum of two four-year terms, would have executive power over almost all university affairs.

The bill is just the start of broader university reform, says prime minister François Fillon, who has described the future of French universities as the most important item on his domestic agenda.

Declan Butler

“French universities run with their laces tied together and a backpack full of stones.”