

SARTONIANA

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**Sarton Chair of the History of Science
Ghent University, Belgium**

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**Volume 34/35
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Editors: Robert Rubens and Maarten Van Dyck

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Authors

Prof. dr. Robert Rubens

Chairman Sarton Committee, Ghent University Hospital, Department of
Endocrinology, C. Heymanslaan 10, 9000 Gent, Belgium
robert.rubens@UGent.be

Prof. dr. Maarten Van Dyck

Secretary Sarton Committee, Ghent University, Centre for History of
Science,
St.-Hubertusstraat 2, 9000 Gent, Belgium
maarten.vandyck@UGent.be

Prof. dr. H. Floris Cohen

University of Utrecht, Faculty of Humanities
h.f.cohen@uu.nl

Prof. dr. Yves T'Sjoen

Ghent University, Faculty of Arts and Philosophy
Department of Literary Studies, Blandijnberg 2, 9000 Gent, Belgium
yves.tsjoen@UGent.be

Prof. dr. Marita Mathijsen

University of Amsterdam, Faculty of Humanities,
Department of Dutch Literature
mathijsen@uva.nl

Prof. dr. Sebastien Vandebogaerde

Ghent University, Faculty of Law and Criminology
Department of Interdisciplinary Study of Law, Private Law
and Business Law
Campus Aula - Universiteitsstraat 4, 9000 Gent, Belgium
sebastien.vandebogaerde@UGent.be

Prof. Dr. Jean-François Gerkens

Université de Liège, Droit romain et droit comparé
Place des Orateurs 1, Bâtiment B.33 (boîte 11)
B-4000 Liège, Belgium
jf.gerkens@uliege.be

Prof. dr. Godelieve Gheysen

Ghent University, Faculty of Bioscience Engineering,
Department Biotechnology
Campus Coupure, Coupure 653, 9000 Gent, Belgium
godelieve.gheysen@ugent.be

Prof. dr. Erick Vandamme

Ghent University, Faculty of Bioscience Engineering, Department
Biotechnology
Campus Coupure, Coupure 653, 9000 Gent, Belgium
erickj.vandamme@gmail.com

Prof dr. Jan Nyssen

Ghent University, Faculty of Sciences, Department of Geography
Krijgslaan 281, 9000 Gent, Belgium
jan.nyssen@UGent.be

Prof. dr. Morgan De Dapper

Ghent University, Faculty of Sciences, Department of Geography
Krijgslaan 281, 9000 Gent, Belgium
morgan.dedapper@UGent.be

Prof. dr. Ann Buysse

Ghent University, Dean, Faculty of Psychology and Educational Sciences,
H. Dunantlaan 2, 9000 Gent, Belgium
ann.buysse@UGent.be

Prof. dr. Michel Vandenbroeck

Ghent University, Faculty of Psychology and Educational Sciences
Department of Social Work and Social Pedagogy
H. Dunantlaan 2, 9000 Gent, Belgium
michel.vandenbroeck@UGent.be

Prof. dr. Dieter Fauconnier

Ghent University, Faculty of Engineering and Architecture
Department of Electromechanical Systems and Metal Engineering
(EMSME)
Technologiepark Zwijnaarde 46,
9052 Zwijnaarde, Belgium
dieter.fauconnier@UGent.be

Prof. dr. Harry van Leeuwen

TU Eindhoven, Faculteit Werktuigbouwkunde
Gebouw 15, GEM-Z 3-139
Postbus 513, 5600 MB Eindhoven
H.J.v.Leeuwen@tue.nl

Prof. dr. Frank Caestecker

Ghent University, Faculty of Economics and Business Administration
Department of Economics
Tweekerkenstraat 2, 9000 Gent, Belgium
frank.caestecker@UGent.be

Prof. dr. Youssef Cassis

European University Institute, Robert Schuman Centre for
Advanced Studies
Villa Schifanoia, Via Boccaccio 121, 50133 Firenze - Italy
youssef.cassis@eui.eu

Prof. dr. Norbert Lameire

Ghent University, Faculty of Medicine and Health Sciences,
Department of Nephrology
UZ Gent, C. Heymanslaan 10, 9000 Gent, Belgium
Norbert.Lameire@UGent.be

Prof. dr. Raymond Vanholder

Ghent University, Faculty of Medicine and Health Sciences,
Department of Nephrology
UZ Gent, C. Heymanslaan 10, 9000 Gent, Belgium
Raymond.Vanholder@UGent.be

Prof. dr. Ann Van Soom

Ghent University, Faculty of Veterinary Medicine
Department of Internal Medicine, Reproduction and
Population Medicine
Salisburylaan 133, B-9820 Merelbeke, Belgium
ann.vansoom@UGent.be

Prof. dr. Aart de Kruif

Ghent University, Faculty of Veterinary Medicine
Department of Internal Medicine, Reproduction and
Population Medicine
Salisburylaan 133, B-9820 Merelbeke, Belgium
Aart.DeKruif@UGent.be

Introduction.

R.Rubens - August 2022

Due to the covid pandemic the Sarton Chair had to be interrupted during the academic year 2020-21. Luckily we could restart in the second part of the academic year 2021-22 and tried to recuperate the missing lectures. Therefore the volume you will be reading has been numbered 34-35 as it contains the lectures of two academic years.

Based upon the Sarton tradition the lectures are again devoted to all aspects of human science. We hope therefore they may interest a broad audience.

Beginning we have the argumentative essay for the humanities in the laudatio of the chairholder and medal recipient of the faculty of Arts by Yves T'Sjoen breaking a lance for the paramount value of the humanities in education.

As a starter we had the Sarton Chair devoted to the “ideal historian of science” written by F.Cohen; In that paper he carefully dissects the portrait of the academic historian having different aspects: sources and literature, language and concepts, reasoning and methodological aspects of the history of science.

The following paper by Mathijsen, the medal recipient, gives a nice outline and study about the popularisation and democratisation of science and culture in the nineteenth century. The detailed study using examples as well from the Netherlands as Belgium provides a detailed insight in the different aspects.

The Graham Island case by Gerkens demonstrates how old Roman Law still can be useful in nowadays problems and proves that the collection of laws by Gaius is still very important in legal history. The “occupatio” rule is nicely explained based upon the example of the vanishing island before the Sicilian coast.

The lecture of Vandamme synthetizes the old history of spontaneous generation, now totally discredited, together with a modern view on the origin of life on our planet. Although not every step is now yet nicely documented the LUCA hypothesis seems the most probable. In this way modern science seems to recreate a new but otherwise documented “spontaneous” creation of life.

The historical and social narrative of Vandebroeck depicts an overview and explains how the evolution of the pedagogy of the young child in the twentieth century can only be understood if social history is taken into account. It starts with the eugenic view followed by the evolution towards the economic history but with the addition of the basic neurosciences in the last two decades.

The history of veterinary obstetrics has been written by an international expert in the field of cow obstetrics. De Kruyf accurately describes the succeeding methods during centuries for helping the large mammals in husbandry to drop its young.

In the history of dialysis two subjects are developed. First an overview of kidney disease during the ages is outlined. The second part is devoted to the history of the different methods used to replace the failing kidney function.

Y.Cassis nicely describes the financial history of Europe in the twentieth century. It contains an outline of the evolution of the financial centres and institutions in the old continent. It stresses the importance of the banking systems and changes ending in an international integration at the end of the century.

The lecture by Van Leeuwen not only highlights the different centres, authors and places active in research about tribology in the Low Countries but it also contains the original story of the discipline. Probably unknown to most a maior contribution was also made by important mathematicians in the Golden Age of the Dutch Republic.

De Dapper explains the origin of geoarchaeology with its evolution the previous half century. The new discipline founds its roots in the department of geography and uses the most recent advances in soil science to help archeology.

May we express again the hope that the lectures contained in this volume many researchers can inspire not only to look for new results but also to cherish the already discovered important methods and facts by their predecessors.

Laudatio Jean-François Gerkens

S.Vandenbogaerde

On 13 January 2020, I had the honour and pleasure of nominating Jean-François Gerkens for the Sarton Medal on behalf of our law faculty. That nomination was endorsed by all colleagues of the Ghent Institute of Legal History and agreed upon by the faculty and the Sarton Committee of our University. This all happened *in tempore non suspecto*, until some virus halted all activities. With a sigh of relief, we could in October 2021 pick up one of those fine traditions and proceed to officially hand over the Sarton Medal to professor Gerkens for the academic year 2020-2021.

Jean-François Gerkens personifies the Belgian. Born and raised in Eupen, capital of East Belgium (*Ostbelgien*), he knows how to express himself fluently in the three national languages. At the *Collège Patronné d'Eupen*, today known as the *Pater Damian Sekundarschule*, he developed an interest in engineering. However, the young Jean-François changed his course and opted to study law in our sister university at Liège. He obtained his *licence* – today's master degree – in 1991. During his studies, he must have impressed the then professor of Roman Law, Roger Vigneron who asked the graduate to become his assistant. So he did. Six years later, Jean-François made his mark with his successfully defended PhD, "*Aeque perit-uris..., une approche de la causalité dépassante en droit romain classique*" which showed an extraordinary quality. The gates of academia opened and Jean-François Gerkens eventually became a professor at the University of Liège. Today, he teaches introductory courses in private law, comparative law (in French and English) and, of course, Roman law. He does so not only for students in Liège or Rome, but even in Burundi.

Jean-François' interest in Roman law and comparative law finds its roots in the intense ties with Italy. As an exchange student, he went to the Uni-

versity of Ferrara, where he studied *diritto bancario*, *diritto costituzionale* and *diritto privato comparato*. As an assistant, he followed the *Corso di perfezionamento in diritto romano* at La Sapienza in Rome. There he laid the foundations for future collaborations and friendships.

About 100 publications show an impressive track record. He started in the renowned *Legal History Review*, after which he kept writing in French, German, English, Italian and Dutch. Of course, his emphasis lays on Roman law, but Jean-François Gerkens also pays attention to the foundations of Belgian and French civil law and the history of the legal profession and education as well. His expertise has been acknowledged by the *Tijdschrift voor Privaatrecht*, which awarded him the TPR Exchange Chair in 2008-2009, as a result of which Jean-François moved to Tilburg to teach. He has presented his research at numerous national and international meetings.

Jean-François Gerkens is a member of the editorial board of several leading journals, including the *European Review of Private Law*, and he has a seat leading associations in the field of legal history and comparative law. In addition, he is member of the so-called *Vereniging voor de Vergelijkende Studie van het Recht in België en Nederland* (Association for the Comparative Study of the Law of Belgium and the Netherlands).

Most important however is that Jean-François heads the *Société Internationale Fernand De Visscher pour l'Histoire des Droits de l'Antiquité*. This association is the largest dedicated to the study of law during the antiquity. Once again there is a link with Ghent, since it has been founded by Fernand De Visscher who was born here. The association travels around the world and unites each year a few hundred scholars. In addition, Gerkens is editor in chief of that association's journal, the *Revue Internationale des Droits de l'Antiquité*. Further on, he coaches Liège students for the International Roman Law Moot Court, wherein young people from Oxford, Cambridge, Trier, Naples, Vienna and Tübingen compete against each other.

Enumerating all academic achievements is impossible in this brief presentation. It should suffice to say that colleagues at home and abroad unanimously acknowledge Jean-François Gerkens as a great legal historian and an expert in the field of Roman law. But, perhaps more importantly, they all praise him for his great personality, a perfect combination of *savoir* and *vivre*. He has that from no strangers as I could witness myself. A few years ago, I met his parents after the best football team was sent home to Bru-

ges after it drew against Eupen on the *Kehrweg*. The game's subsequent discussion took place in a pleasant atmosphere. To be brief, the professional cooperation with colleague Gerkens did not only lead to a smooth exchange of knowledge, but also to a good personal relationship with all members of the Gent Legal History Institute.

In his exposé, Jean-François Gerkens will take us to a cruise on the Mediterranean, where we will search for Graham Island – or was it called Ferdinanda or Île Julia? – an underwater volcanic island near Sicily, which has, on more than one occasion, risen above sea level. What does that have to do with law? You are about to find out.

The Graham Island Case

Acquiring by Occupatio

Jean-François Gerkens

Graham Island – or Isola Ferdinandea – is a mysterious island of the Mediterranean, causing an interesting and complicated diplomatic problem. The aim of this article is to ascertain whether Roman law can provide a clear and useful analytical tool for understanding and possibly resolving this problem.

1. The Graham/Ferdinandea case

It is well known that the italic peninsula has an important seismic activity. South of Sicily, some islands are the result of this volcanic activity, like for example the island of Pantelleria. Not far from there, in 1831, an island rose from the sea and this is also the island this paper is about. For this purpose, I will be going through the available sources¹.

The first source I'd like refer is a speech given by a geologist of the University of Catania, in Sicily: “Relazione dei fenomeni del nuovo vulcano

¹ For a longer version of this story, written by historians in recent times: see Salvatore Mazzarella, *Dell'isola Ferdinandea e di alter cose*, Palermo 1984; Bruno Fuligni, *L'île à éclipses. Apparitions et disparitions d'une terre française*, Paris 2017. Some international scholars and celebrities visited this island and wrote detailed reports. See e.g.: Carlo Gemmellaro, *Relazione dei fenomeni del nuovo vulcano sorto dal mare fra la costa di Sicilia e l'isola di Pantelleria nel mese di Luglio 1831*, Catania 1831; Friedrich Hoffmann, “Ueber das im mittelländischen Meere entstandene vulkanische Eiland, genannt Corrao, Nerita, Isola Ferdinandea, Graham Island, Hotham Island und Julia, nebst einigen Nachrichten über kraterförmige Inseln ähnlichen Ursprungs”, in *Annalen der Physik und Chemie* 24 (1832), p.65-109; Constant Prévost, “Notes sur l'île Julia : pour servir à l'histoire de la formation des îles volcaniques”, in *Mémoires de la Société Géologique de France*, 1835, p.91-124; Sir Walter Scott, “Letter to Mr. James Skene”, in John Gibson Lockhart, *Memoirs of the life of Sir Walter Scott, Baronet*. Volume the seventh, London 1838, p. 325-328.

sorto dal mare fra la costa di Sicilia e l'isola di Pantelleria nel mese di Luglio 1831²". Carlo Gemmellaro opens his speech with a reference to Seneca³, who discussed such a phenomenon already during the Antiquity. The Sicilian professor admits that the phenomenon is not especially rare, but it's the first time that so many scholars from so many countries were able to observe the phenomenon in person⁴. He himself tells how difficult it was to persuade a sailor to sail to this volcano⁵.

On the 28th June 1831, an earthquake could be noticed on the southern coasts of Sicily and even until Palermo⁶. Two British boats called HMS Rapid and Britannia, based in Malta, were cruising some 30 miles off the coasts of Sicily, between the city of Sciacca and the Island of Pantelleria, and were shaken by this quake⁷. This indicated some volcanic activity nearby⁸. During the first days of July, fishermen from Sciacca noticed some uncanny movements in the sea⁹. Other small boats also noticed some unusual underwater activity and especially many dead fishes, as well as black floating pumices¹⁰.

On the 9th July, Sicilians could smell some odour of sulphide coming from the sea and it sufficed to make silverware turn black¹¹.

On the 12th July, Ferdinando Caronna, captain of the Psyche from Naples, seems to have been the first to see smoke coming out of the sea¹². Or at least, that's the version to be read in the Malta Gazette, because Gemmellaro¹³ writes that it was another sailor – the Sicilian captain Trefiletti – who saw it already 4 days earlier.

Mentioning the "Malta Government Gazette" probably imposes to briefly explain what it is. In those years of the beginning of the 19th century, Malta was under British rule and there was no freedom of press. We're

² Gemmellaro, *op.cit* (n.1).

³ Seneca, *Naturales Quaestiones*, VI, 21.

⁴ Gemmellaro, *op.cit* (n.1), p. 1-5.

⁵ Gemmellaro, *op.cit* (n.1), p. 6.

⁶ Gemmellaro, *op.cit* (n.1), p. 7; Hoffmann, *op.cit.* (n.1), p. 71; Mazzarella, *op.cit* (n.1), p.73-75.

⁷ Gemmellaro, *op.cit* (n.1), p. 7-8.

⁸ Gemmellaro, *op.cit* (n.1), p. 8; Mazzarella, *op.cit* (n.1), p.77-80.

⁹ Gemmellaro, *op.cit* (n.1), p. 8; Mazzarella, *op.cit* (n.1), p.80-81.

¹⁰ Gemmellaro, *op.cit* (n.1), p. 8-10; Mazzarella, *op.cit* (n.1), p.82-83.

¹¹ Mazzarella, *op.cit* (n.1), p.87.

¹² Malta Government Gazette, Wednesday 27 July 1831 (n° 1069), p.227. In the previous journal [Wednesday 20 July 1831 (n° 1068), p.220], the first notice of smoke was considered to be from 13 July and attributed to Prospero Schiaffino and Mario Provenzano.

¹³ Gemmellaro, *op.cit* (n.1), p. 9; See also: Hoffmann, *op.cit.* (n.1), p. 72.

thus reading a newspaper issued by the government itself and this is also what the government means to do. They are not pretending to issue an independent journal. For the Belgian reader, the similarity with our “het Belgisch Staatsblad” is probably striking. Having two columns with the same texts written in two different languages is something Belgians are very used to! The design is familiar to them, even though in 1831, the Belgian official paper was not yet bilingual and still called “*Bulletin officiel des lois et arrêtés royaux de la Belgique*”. But for those who thought that such a bilingual official journal was typically Belgian, Malta proves them wrong! Of course, in Malta, the languages are not the same: in those years, the Malta Government Gazette was published in English and Italian. And it’s interesting to see that it contains more than only official notices of the Maltese government. On the 10th of August for example, it gives some news from Belgium and the arrival of Prince Leopold of Saxe-Coburg in Ostend, as King of the Belgians. In the same issue, there is also news about a dangerous pandemic, spreading all over the world: the cholera morbus. Therefore, it was decided to impose a quarantine to ships coming from the North of Europe. But if we are consulting the Malta Gazette, it is because it gives some interesting news about the new volcano nearby.

Besides the open question about who saw the smoke first: On the 13th July, the column of smoke could be seen from the people in Sciacca¹⁴. It was at some 30 miles off the coast, in a place called “secca di mare”, which is a bank below sea level. First, they thought it was a steam boat, but as it persisted, they thought it might be a burning steam boat¹⁵. On the same day, 2 ships were closer to the smoke: Prospero Schiaffino on the Sant’Anna (from Sardinia) and Mario Provenzano on the Madonna delle Grazie (from Naples) reported 3 columns of smoke¹⁶.

Some days later, the eruption really started. Captain Rossignaud (on the brig *Adelaide* from London) seems to have been the first to see “a body of fire which shot up perpendicularly to the height of a mast-head of a line of battle ship¹⁷”.

¹⁴ Hoffmann, *op.cit.* (n.1), p. 73.

¹⁵ Mazzarella, *op.cit.* (n.1), p.92.

¹⁶ Malta Government Gazette, Wednesday 20 July 1831 (n° 1068), p.220.

¹⁷ See Malta Government Gazette, Wednesday 20 July 1831 (n° 1068), p.220 and Wednesday 27 July 1831 (n° 1069), p.227.

And in very little time, a small island emerged from the sea. Commander Charles Henry Swinburne (on the HMS Rapid) reports to Vice-Admiral Henry Hotham (Commander-in-Chief in the Mediterranean): “(...) At daylight I again steered towards it, and about 5 A.M. when the smoke had for a moment cleared away at the base, I saw a small hillock of a dark colour a few feet above the sea. This was soon hidden again, and was only visible through the smoke at the intervals between the more violent eruptions (...)”¹⁸.

The sanitary deputation of Sciacca is said to have sent a fishing boat under the command of Michele Fiorini, who planted an oar on the shore of the new-born island. Actually, this story is rather unlikely, as in those days, the volcano was still very active. It has probably been invented by the Neapolitans afterwards, so they could pretend they had been the first finders of the new island... and certainly before the British¹⁹.

But this extraordinary eruption interested more than only Italians (in a broad sense) and Brits. Some German professors who were present in Sicily in those days, decided to go to Sciacca to see the phenomenon with their own eyes²⁰. Friedrich Hoffmann, a geologist and volcanologist, and his colleagues arrived in Sciacca on the 20th July. They hired a small boat to approach the newly formed and still smoking island²¹. They approached enough to be able to measure it, but landing was still impossible. The danger was too big²².

The eruption stayed strong until the 24th July and then diminished until it ended completely at the beginning of August. At this time, the island reached its maximum size: 4800 meters of circumference and 63 meters high.

The news of this new island caused great interest, in particular from the British side, for whom it was located on the sea route to Malta. The Malta Government Gazette²³ reported on the 10th August that the captain Humphrey Le Fleming Senhouse raised the English flag on the island already on the 2nd August²⁴. The British called the island “Graham” in honour of a

¹⁸ Malta Government Gazette, Wednesday 27 July 1831 (n° 1069), p.228.

¹⁹ Mazzarella, *op.cit.* (n.1), p.150-151.

²⁰ Hoffmann, *op.cit.* (n.1), p. 74.

²¹ Hoffmann, *op.cit.* (n.1), p. 75.

²² Hoffmann, *op.cit.* (n.1), p. 77.

²³ Malta Government Gazette, Wednesday 10 August 1831 (n° 1071), p.243-244. This Gazette was bilingual and published in both English and Italian. The Italian version of the article has been republished by Gemmellaro (*op.cit.* fn.1, p.XXIII-XXIV).

²⁴ Mazzarella, *op.cit.* (n.1), p.149-150; Hoffmann, (*op.cit.* fn.18) p.79, 98; Malta Government Gazette, Wednesday 10 August 1831 (n° 1071), p.243.

First Lord of Admiralty (1830-1834)²⁵. But this story is also very questionable, because the 2nd August too is before the end of the eruption²⁶.

Friedrich Hoffmann²⁷ seems to doubt it. He tried to access the new island but renounced because it was too difficult. In his report to the Prussian Academy, he writes that the people from Sciacca dared to go on the island for the first time on 25 August only, because only then, the volcanic activity had calmed down.

The French Professor Constant Prévost²⁸ doesn't say anything else, when he writes that on 12 August, the eruptions were still so strong that it was impossible for Professor Gemmellaro to even approach the island.

Carlo Gemmellaro²⁹ himself, writes that he was surprised to read that Senhouse landed on the island and found it so firm and compact that in his opinion, a permanent island was born. Gemmellaro actually writes that Senhouse was bragging about planting the English flag there, which nobody saw waving nine days later. Gemmellaro also reports that there was other news about the volcano, from which it appears that on 20th August the surgeon Hosborne of the ship Ganges with other officers coming from Malta disembarked on the island, and went up the hill, where, it is said, Sir Coleman planted the English flag.

²⁵ Mazzarella, *op.cit.* (n.1), p.158-159.

²⁶ Mazzarella, *op.cit.* (n.1), p.162-163.

²⁷ Hoffmann, *op.cit.* (n.1), p.81: "Am 25. August endlich wagten erst zuerst einige Sicilianer aus Sciacca in Gesellschaft eines Engländers (Namens John Wright) einen Ausflug nach der ruhig gewordenen Feueresse zu machen (...)".

²⁸ Prévost, Notes *op.cit.* (n.1), p.98: "Cependant, le 12 du même mois, le professeur Gemmellaro fut témoin d'éruptions dont la force l'empêcha même d'approcher, ce qui prouve des intermittences dans les phénomènes et atteste que des crises violentes ont souvent été séparées par des intervalles de repos.

²⁹ Gemmellaro, *op.cit.* (n.1), p.19: "Si legge però nella Gazzetta di Malta (N° 1071. Wensday 10 august), che il cap. Senhouse col cutter inglese *Hind*, nel giorno 2 agosto si portò a verificare questo straordinario fenomeno (...). Ma quel che più mi sorprende si è ch'egli approdò al nuovo Vulcano, e lo trovò di terreno tanto sodo, che lo chiamò un'isola permanente, quando non è che un ammasso di ceneri e scorie leggere: si vanta avervi piantata la bandiera inglese, che nessuno di noi vide sventolare nove giorni dopo, e volle dare alla stessa il nome *Graham*". Gemmellaro also reports (p.44): "Dacchè fu letta questa Relazione, sino al giorno in cui se n'è cominciata la stampa, si sono avute altre notizie intorno al Vulcano, dalle quali risulta che il dì 20 agosto il chirurgo Hosborne del Ganges con altri uffiziali venuti da Malta vi sbarcarono, e salirono sulla collina, ove, si dice, aver piantata la bandiera inglese il sig. Coleman. Il diametro del cratere si trovò di 90 piedi circa: esso vedevasi ripieno d'acqua rossastra tinta di perossido di ferro in soluzione, e fortemente salata: la sua temperatura era di gr. 190 Far. L'eruzione pareva esser cessata sin dal giorno precedente. L'isola consisteva di un ammasso di scorie e cenere; la sua circonferenza estendevasi ad un miglio circa, e l'altezza a 160 piedi".

On the 17th August, Ferdinand II of Bourbon, King of Naples and Sicily included the island in its Kingdom³⁰ under the name of Ferdinandea³¹. But he did so without any factual measure of taking possession. The symbolic and dubious action of Fiorini cannot be considered as the start of an official occupation for the Kingdom.

On the 25th of September, Friedrich Hoffmann and his colleagues tried to approach the island again. They were encouraged to do so by the numerous stories of people who landed on the island successfully³²! They noticed how much it had changed since their first visit two months earlier. They approached the island enough to touch it with the oars, but were again unable to land. The waves and the muddy and very loose sand made it impossible³³.

Another interesting source of information is the report written by Professor Constant Prévost, who was sent by the French Academy of Sciences³⁴.

On the 28th September, the French expedition was experiencing the same problems as the Germans: it was impossible to land on the island³⁵. But then a seaman offered to swim to it³⁶. Even though he reached the shore without being harmed, he made signs, showing that the soil was so hot, that he could barely stand on it.

On the 29th September, they tried again and were able to land with their boat this time. Frenchman Derussat, who was part of a scientific expe-

³⁰ Mazzarella, *op.cit* (n.1), p.163.

³¹ This name has been proposed by Carlo Gemmellaro, geologist at the university of Catania who was amongst the first to study the volcano. Mazzarella, *op.cit* (n.1), p.156-157. But in his book, Gemmellaro (p.46) writes precisely that he will call it "*Isola di Ferdinando II*". The name has been changed to "*Ferdinandea*" in the decree of the King.

³² Hoffmann, *op.cit.* (n.1), p. 82-83.

³³ Hoffmann, *op.cit.* (n.1), p. 83: „Ein heftiger Scirocco, welcher bereits in der Nacht uns einige mühselige Schifffahrt veranlaßt hatte, nöthigte uns bald, vorsichtig fortrudernd, unter der Nordwestspitze des Vulcans eine Zuflucht zu suchen, und wir näherten uns derselben, bis wir mit den Rudern in den Sand stießen. Sehr bald aber überzeugten uns die mehrfach vergeblich wiederholten Versuche unserer gutwilligen und furchtlosen Matrosen, daß es unmöglich sey, des unruhigen Meeres und des aufgelockerten schlammigen Sandes wegen, der den Grund bildete, hier landen zu können, und wir mußten uns daher mit der Anschauung dessen begnügen, was die sehr grobe Nähe aus der Barke uns zu beobachten gestattete“.

³⁴ Constant Prévost, "Notes sur l'île Julia : pour servir à l'histoire de la formation des îles volcaniques", in *Mémoires de la Société Géologique de France*, 1835, p.91-124;

³⁵ Constant Prévost, "Description de l'île volcanique sortie récemment au sein de la Méditerranée", in *Nouvelles annales des voyages, de la géographie et de l'histoire* 1831, p. 292 : "Les marins pensèrent d'un commun accord qu'il y aurait imprudence à tenter le débarquement dans ce moment, et qu'inévitablement l'embarcation chavirerait".

³⁶ Constant Prévost, "Extrait d'une Lettre de M. Constant Prévost, datée de Malte le 3 octobre 1831, et adressée à l'académie des Sciences, sur le nouvel Islot volcanique de la mer de Sicile", in *Annales des sciences naturelles* 1831, p. 106-107 ; Idem, *Nouvelles Annales op. cit.* n.36, p. 293.

dition under leading of Professor Prévost, planted the French flag on the highest spot of the island³⁷. Prévost also wrote a plate³⁸ he planted on the island, giving the name “Julia”, as it rose during the month of July. Prévost writes that when he decided to call the island “Julia”, it was because he was not aware of the fact that it had previously been called Graham and that the British flag had been raised on it earlier³⁹.

In the end, the island received at least 7 names: Ferdinanda, Proserpina, Corrao, Graham, Hotham, Julia, Nerita⁴⁰.

The dispute seems to have involved mainly Great Britain and the Kingdom of the Two Sicilies⁴¹. Even if the French raised their flag on the island just like the British, apparently, they didn't do it for the same purpose. The French wanted to show their scientific interest for the volcano, but not to occupy the island, which they thought to be ridiculous, certainly now it had become clear that the island would not last long anymore⁴². Being theoretically neutral on this topic, Hoffmann⁴³ raised doubts about the right of the English to take possession of an island which had apparently risen from the waters of the Kingdom of the Two Sicilies.

But while the states were arguing about the ownership of the new island, it was being washed away by the tides and waves, becoming smaller and smaller. When Friedrich Hoffmann visited the island (on 26 September 1831), without being able to land because of the too strong winds⁴⁴, he noticed that the winter would probably suffice to make an end to the island's existence⁴⁵. When the French visited it a few days later, the circumference had already diminished from 4600 meters to only 700 meters⁴⁶.

³⁷ Mazzarella, *op.cit* (n.1), p.180-186.

³⁸ Constant Prévost, *Nouvelles Annales* (op.cit), p. 295 : “ILE JULIA

³⁹ Mazzarella, *op.cit* (n.1), p.159. Constant Prévost, *Notes op.cit.*, (n.1), p.98: “C’est le 2 août que le capitaine Senhouse, commandant le vaisseau vice-amiral le Saint-Vincent, débarqua pour la première fois, et qu’il put faire planter la bannière anglaise sur cette île encore naissante à laquelle il donna le nom de Graham, circonstance que nous ignorions, le 29 septembre, lorsque nous descendîmes sur ce même sol, que nous appelâmes île Julia”.

⁴⁰ About the different names of the island, see Mazzarella, *op.cit* (n.1), p.156-160. Hoffmann (*op.cit.* fn.18, p.97-98) mentioned only 6 names, leaving out “Proserpina”.

⁴¹ Mazzarella, *op.cit* (n.1), p.163-168.

⁴² Constant Prévost, “Descente à l’île Julie, nouvellement sortie de la mer sur les côtes de Sicile” in *Revue des deux mondes* 1831, T.4, p. 393-405, p.400-401; also Mazzarella, *op.cit* (n.1), p.184-186.

⁴³ Hoffmann, *op.cit.* (n.1), p.98.

⁴⁴ Hoffmann, *op.cit.* (n.1), p.86.

⁴⁵ Hoffmann, *op.cit.* (n.1), p.87.

⁴⁶ Mazzarella, *op.cit* (n.1), p.182; Prévost, (*Notes op.cit.*, n.1, p.100).

In November, another prominent visitor wanted to see the new island, and this was Sir Walter Scott, the famous Scottish writer. When he visited⁴⁷ the island, it emerged only of a few meters⁴⁸.

This is what Walter Scott writes to his friend Skene⁴⁹ about the island:

“As it has been my lot to see the new volcano, called Graham’s Island, either employed in establishing itself, or more likely in decomposing itself—and as it must be an object of much curiosity to many of our brethren of the Royal Society, I have taken it into my head that even the very imperfect account which I can give of a matter of this extraordinary kind may be in some degree valued. Not being able to borrow your fingers, those of the Captain’s clerk have been put in requisition for the enclosed sketch, and the notes adjoined are as accurate as can be expected from a hurried visit. You have a view of the island, very much as it shows at present, but nothing is more certain than that it is on the eve of a very important change, though in what respect is doubtful. I saw a portion of about five or six feet in height give way under the feet of one of our companions on the very ridge of the southern corner, and become completely annihilated, giving us some anxiety for the fate of our friend, till the dust and confusion of the dispersed pinnacle had subsided. You know my old talents for horsemanship. Finding the earth, or what seemed a substitute for it, sink at every step up to the knee, so as to make walking for an infirm and heavy man nearly impossible, I mounted the shoulders of an able and willing seaman, and by dint of his exertions rode nearly to the top of the island. I would have given a great deal for you, my friend, the frequent and willing supplier of my defects; but on this journey, though undertaken late in life, I have found, from the benevolence of my companions, that when one man’s strength was insufficient to supply my deficiencies, I had the willing aid of twenty if it could be useful. I have sent you one of the largest blocks of lava which I could find on the islet, though small pieces are innumerable. We found two dolphins, killed apparently by the hot temperature, and the body of a robin redbreast, which seemingly had come off from the nearest land, and starved to death on the islet, where it had neither found food nor water. Such had been the fate of the first at-

⁴⁷ When Sir Walter Scott visited the island, on 22 November 1831, he was already 60 and rather ill (he eventually died some 10 months later). Because of his illness, he wasn’t able to walk on the island alone.

⁴⁸ Mazzarella, *op.cit* (n.1), p.191-194.

⁴⁹ Sir Walter Scott, “Letter to Mr. James Skene”, *op.cit* (n.1).

tempt to stock the island with fish and fowl. On the south side the volcanic principle was still apparently active. The perpetual bubbling up from the bottom produces a quantity of steam, which rises all around the base of the island, and surrounds it as with a cloak when seen from a distance. Most of these appearances struck the other gentlemen, I believe, as well as myself; but a gentleman who has visited the rock repeatedly, is of opinion that it is certainly increasing in magnitude. Its decrease in height may be consistent with the increase of its more level parts, and even its general appearance above water; for the ruins which crumble down from the top, are like to remain at the bottom of the ridge of the rock, add to the general size of the islet, and tend to give the ground firmness.

The gales of this new-born island are anything but odoriferous. Brimstone, and such like, are the prevailing savours, to a degree almost suffocating. Every hole dug in the sand is filled with boiling water, or what was nearly such. I cannot help thinking that the great ebullition in the bay, is the remains of the original crater, now almost filled up, yet still showing that some extraordinary operations are going on in the subterranean regions.

If you think, my dear Skene, that any of these trifling particulars concerning this islet can interest our friends, you are free to communicate them either to the Society or to the Club, as you judge most proper. I have just seen James [James Henry Skene, Esq., a son of Sir W.'s correspondent, was then a young officer on duty at Malta.] in full health, but he vanished like a guilty thing, when, forgetting that I was a contraband commodity, I went to shake him by the hand, which would have cost him ten days' imprisonment, I being at present in quarantine. We saw an instance of the strictness with which this law is observed: In entering the harbour, a seaman was pushed from our yard-arm. He swam strongly, notwithstanding the fall, but the Maltese boats, of whom there were several, tacked from him, to avoid picking him up, and an English boat, which did take the poor man in, was condemned to ten days' imprisonment, to reward the benevolence of the action."

Sir Walter Scott was certainly right about the fact that the island was decomposing itself. Indeed, in December the volcano was completely under water again⁵⁰.

⁵⁰ According to one source at least [Mazzarella, *op.cit* (n.1), p.196] but Prévost writes that the island disappeared only on 12 January 1832 (Mazzarella, *op.cit* (n.1), p.201).

It reemerged in 1863 for a few days only⁵¹. In 1987, during the war between the USA and Libya, it seems that an American warplane took the island for a submarine and dropped depth charges on it⁵².

2. Ferdinanda today

The old dispute about the island had a new episode in 2000, with an article written by Richard Owen, of the Times. The title of his article “British isle rises off the coasts of Sicily” was clear enough⁵³! The seismic activity in the area allowed it to think that the island could rise again soon. But the diplomatic question was still open. Who will own this island if it rises again? For now, nature has decided to delay the case, but you can bet that the Italians did not like the article in the Times!

One thing is certain: the island would be outside of the territorial waters of Italy because it is at a distance of 22 miles from the closest Sicilian shore. Scientist say that the island could rise again but it is actually impossible to predict precisely. It seems to be now at ca. 5-10 meters below the sea level. The cone of the volcano starts at 190 meters below sea level. The area has long been known as being dangerous. It is the meeting point of the African and the Eurasian tectonic plates. The Earth crust there is very thin, which favours the exit of magma. To the difference of the Etna, there is no magma room, where magma can accumulate before the eruption. Therefore, there is no way to anticipate it.

It might be useful to remind that such an eruption is not precisely something to look forward to, as these eruptions can be devastating! It seems that an eruption in this area caused a tsunami right there and devastated the Greek city of Selinunte.

Never mind this... What if the island rises again? Probably at least the British and the Italians would claim the island as theirs. But who would prevail legally?

⁵¹ Mazzarella, *op.cit* (n.1), p.207.

⁵² This is what Richard Owen writes in the newspaper Times, in both his articles about Graham/Ferdinanda (“British isle rises off Sicily coast” 5 February 2000 and “Italy stakes early claim to submerged Island” 27 November 2002). In the first of these articles, the author refers to “diplomats” about this story. When asked about this in 2020, Richard Owen kindly replied to my questions, but did not remember precisely how he got the information.

⁵³ See previous footnote.

Obviously, it is impossible to own an island that does not exist as it does not conform to the definition of an island⁵⁴. Following the International Convention of Montego Bay (1982), the territorial sea cannot exceed 12 miles⁵⁵. This means that the Graham Shoal or Bank is outside of the Italian territorial sea⁵⁶. Thus: International law does not help us immediately in this case. The bank has no owner and if it emerges again, it will not be automatically included in the Italian territory.

No reference is made to the acquisition of new territories in the treaty itself, but there have been some cases decided by international arbitration using the concept of effective occupation of a land⁵⁷. These rules about occupation have been immediately inspired from Roman Law like so many other rules of international law⁵⁸. The next step I suggest is therefore to go back to these rules to see if they help us understand – and eventually solve – our problem.

3. Introduction to the Roman Law of Occupatio

As it is very well known, the *occupatio* allows to acquire things that don't belong to anyone, are the property of no one. Before becoming a legal institution, it was merely a factual mode of acquisition. It probably was chronologically the first way to acquire ownership on something. From a dogmatic point of view, it probably happened as follows: A man would become owner of the things he takes⁵⁹. And he would do this simply by taking

⁵⁴ UN Convention on the Law of the Sea (Montego Bay 1982), Article 121: *Regime of islands*.1: An island is a naturally formed area of land, surrounded by water, which is above water at high tide. (...).

⁵⁵ Article 3: *Breadth of the territorial sea*. Every State has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles, measured from baselines determined in accordance with this Convention.

⁵⁶ It would be possible for Italy to consider the Graham Shoal zone as a Contiguous Zone (UN Convention on the Law of Sea, Article 33: 1. In a zone contiguous to its territorial sea, described as the contiguous zone, the coastal State may exercise the control necessary to: (a) prevent infringement of its customs, fiscal, immigration or sanitary laws and regulations within its territory or territorial sea; (b) punish infringement of the above laws and regulations committed within its territory or territorial sea. 2. The contiguous zone may not extend beyond 24 nautical miles from the baselines from which the breadth of the territorial sea is measured.) However, I don't think this implies that the island would automatically become Italian, if it were to emerge again.

⁵⁷ See the Island of Palmas case (or Miangas), *United States of America vs The Netherlands*, The Hague 4 April 1928, or the Clipperton Island case, *Mexico vs France*, The Hague 28 January 1931.

⁵⁸ See Randall Lesaffer, "Argument from Roman Law in Current International Law: Occupation and Acquisitive Prescription", *The European Journal of International Law* 16/1 (2005), p.25-58.

⁵⁹ Therefore, *occupatio* is considered to be a *ius gentium* rule. Inst.Just. 2.1.11-12. Max Kaser, *v° occupatio*, in RE, Supplementband VII, 1940, 682. Cicero expressed a similar idea in his *de Off.* 1.21.

a factual possession of that thing. Nowadays, *occupare* means taking autonomously possession of a thing with no owner⁶⁰. It is surprising to notice that the word “*occupatio*” is present in the Roman legal sources only with the meaning “what you are busy with”, but never our legal term, meaning a way to take possession of a thing with the scope of acquiring ownership⁶¹. Therefore, the Roman jurists only used the verb “*occupare/occupo*”. Things without an owner were called *res nullius* or, if they had been abandoned by their owner: *res derelictae*. Taking possession was meant to be merely factual. The sources don’t speak of the will of he who is occupying. Probably this will didn’t have to be precise. The occupier did not have to know whether the thing was a *res nullius* or a *res derelicta*. We can derive this from the fact that if someone wanted to steal a thing, not knowing that the owner of that thing had actually abandoned it, did not commit any theft.

Ulp. (41 Sab.) D. 47.2.43.5:

Quod si dominus id dereliquit, furtum non fit eius, etiamsi ego furandi animum habuero: Nec enim furtum fit, nisi sit cui fiat: in proposito autem nulli fit, quippe cum placeat Sabini et Cassii sententia existimantium statim nostram esse desinere rem, quam derelinquimus.

If its owner has abandoned something, I will not commit theft of it, even though I take it with theftuous intent; for there can be no theft without an owner of the object; in the case posited, the thing belongs to no one; for the view of Sabinus and Cassius has commended itself that a thing ceases to be ours as soon as we abandon it⁶².

So, it is not possible to commit a theft on a thing that has actually been abandoned by its owner... which means that the will of he who takes possession of the thing does not matter.

Like very often in Roman law, the sources show a very casuistic panorama of the institution of *occupatio*. There are 7 groups of cases, depending of

⁶⁰ Not any *res nullius* can be object of an *occupatio*. The *res nullius hereditariae*, need to be excluded here. Even though they belong to nobody, they cannot be acquired by *occupatio*.

⁶¹ The authors of the VIR (*vocabularium iurisprudentiae romanae*) forgot the word “*occupatio*” which made Max Kaser write (op.cit. fn.59) that it was totally absent of the sources, but as the Heumann-Seckel dictionary puts it better, it is in the sources, but always with the meaning of activity, what keeps you occupied or busy. It is never used in the meaning of an acquisition mode. See Heumann-Seckel, Handlexikon zu den Quellen des römischen Rechts¹⁰, Graz 1958, s.v. *occupatio* (p.386). There is at least one text that comes close to use the word *occupatio* with the meaning of acquiring ground, but it is more a historical thought than a text about the legal institution (Cic.*Off.*1.21).

⁶² All English translations of fragments from Justinian’s Digest are taken from Alan Watson’s edition, Philadelphia 1985. Book 47 has been translated by J.A.C. Thomas.

the object that is occupied. So, we have: (1.) Wild animals, (2.) Islands rising from the sea, (3.) Spoils of war, (4.) Constructions on beaches, (5.) Precious stones or gems found on beaches, (6.) Abandoned things and (7.) Discovered treasures.

In this article, I will consider the 2 first categories.

4. Occupatio in Gaius' writings

The figure of the great jurist Gaius is central in the field of *occupatio* and *res nullius*. Most of the texts transmitted to us are attributed to him. To begin with, Gaius writes that ownership can be acquired *iure civili* or *iure naturali*⁶³. Civil acquisition is possible only by Roman citizen but anyone can acquire by natural law. Amongst natural modes of acquisition, Gaius cites *traditio* and *occupatio*⁶⁴. He writes that through *occupatio*, we can become owner of a thing that did not belong to anyone before. So, a *res nullius* can be acquired by occupying it⁶⁵. But what are the things included in the category of *res nullius*? Gaius writes⁶⁶ that they are the animals you can catch on earth, in the sea or in the sky.

For the Romans, there were 2 types of animals: Wild animals and domestic animals. Domestic animals were never considered *res nullius* and therefore could not be acquired by *occupatio*.

⁶³ Gai.2.65: *Ergo ex his, quae diximus, apparet quaedam naturali iure alienari, qualia sunt ea, quae traditione alienantur; quaedam civili: nam mancipationis et in iure cessionis et usucapionis ius proprium est civium romanorum.* 66. *Nec tamen ea tantum, quae traditione nostra fiunt, naturali nobis ratione adquiruntur, sed etiam quae occupando ideo consequi poterimus (?), quia antea nullius essent, qualia sunt omnia, quae terra mari caelo capiuntur.* Translation by W.M.Gordon/O.F.Robinson: 65. And so it is apparent from what we have said that some forms of alienation fall under the law of nature, for example, alienation by delivery, and some fall under state law. For the right to use mancipation, assignment in court and usucapion is specific to Roman citizens. 66. But it is not only by delivery that we acquire things which we get by first taking and which becomes ours because previously they belonged to no one, for example, everything caught on land, in the sea or in the sky. On this opposition between civil law and natural law, see e.g.: Mario Talamanca, *Istituzioni di diritto romano*, Milano 1990, 413.

⁶⁴ Gai.2.65 (see previous fn.).

⁶⁵ In addition to Gai.2.66 (fn.63) there is also a fragment of the Digest, written by the same Gaius (2 rer. cott.) D.41.1.3pr.: *Quod enim nullius est, id ratione naturali occupanti conceditur.* Translation A. Watson/JA.C.Thomas: What presently belongs to no one becomes by natural reason the property of the first taker.

⁶⁶ Again in Gai.2.66 (see fn.63).

4.1. Occupatio of animals

Amongst the wild animals, the Romans made another distinction between domesticated animals and the others. The domesticated animals remained our property as long as they had the *animus revertendi*, which is the habit to come back⁶⁷. The others would remain our property only as long as we have them under our *custodia* or custody. By losing *animus revertendi* or escaping from our *custodia*, the animal would recover its natural liberty and be a *res nullius* again, so it could again be acquired by anyone who occupied it. These distinctions are to be found in another text of Gaius:

Gaius, *Institutes*, 67-68:

67. Itaque si feram bestiam aut volucrem aut piscem ceperimus, quidquid (?) captum fuerit, id nostrum esse incipit (?) et eo usque nostrum esse intellegitur, donec nostra custodia coerceatur: cum vero custodiam nostram evaserit et in naturalem se libertatem receperit, rursus occupantis fit, quia nostrum esse desinit; naturalem autem libertatem recipere videtur, cum aut oculos nostros evaserit, aut licet in conspectu sit nostro, difficilis tamen eius persecutio sit. 68. In iis autem animalibus, quae ex consuetudine abire et redire solent, veluti columbis et apibus, item cervis qui in silvas ire et redire solent, talem habemus regulam traditam, ut si revertendi animum habere desierint, etiam nostra esse desinant et fiant occupantium; revertendi autem animum videntur desinere habere, cum revertendi consuetudinem deseruerint.

(67) And so, if we catch a wild animal or bird or fish it becomes ours as soon as we have caught it and it remains ours so long as we keep it under our control. If it escapes our control and recovers its natural liberty the next taker can have it because it ceases to be ours. It is thought to have regained its natural freedom when it has gone out of our sight or when, though still in sight, it is difficult to reach it. (68) However, in the case of those animals which regularly come and go, such as pigeons and bees and also deer which go back and forth to the woods, we have this rule handed down: if they lose their homing instinct, then they stop being ours. They then vest in the next taker. They are judged to lose the homing instinct when they stop coming back⁶⁸.

⁶⁷ On this habit to come back, see e.g.: Johanna Filip-Fröschl, “*Cervi qui in silvas ire et redire solent. Anmerkungen zu einem exemplum iuris*”, in FS Mayer-Maly, Köln 2002, pp.191-213; Mariko Igimi, “*Occupatio* im Alltag der Römer”, in: Aus der Werkstatt römischer Juristen, Berlin 2016, pp.153-171.

⁶⁸ Translated by W.M.Gordon/O.F.Robinson.

We can also read this rule in another fragment of Gaius:

Gai. (2 rer. cott.) D.41.1.3.2:

Quidquid autem eorum ceperimus, eo usque nostrum esse intellegitur, donec nostra custodia coercetur: Cum vero evaserit custodiam nostram et in naturalem libertatem se receperit, nostrum esse desinit et rursus occupantis fit.

Any of these things which we take, however, are regarded as ours for so long as they are governed by our control. But when they escape from our custody and return to their natural state of freedom, they cease to be ours and are again open to the first taker⁶⁹.

The rule is thus: If one loses the *potestas* on the wild animal, one also loses the ownership and thus the animal itself. The concept of *potestas* in this context is to be found in a fragment of Proculus⁷⁰. To summarise the case: there is a boar caught in a snare and someone, who walks by, liberates the boar. The question is then whether the hunter was already the owner of the boar and whether he had an action against the guy (the walker) who liberated the boar.

Proculus makes a series of distinctions: Did the walker simply liberate the boar or did he take it back with him? Was the snare located in a public or in a private place? If it was in a private place, was it owned by the hunter or by a third person? If it was owned by a third person, did he authorise the hunter to hunt there? And then, was the boar trapped in the snare in a way that it couldn't escape, or would it have been able to escape on its own after a longer struggle?

⁶⁹ Translated by A. Watson/J.A.C. Thomas.

⁷⁰ Proculus (2 epist.) D.41.1.55: *In laqueum quem venandi causa posueras, aper incidit, cum eo haereret, exemptum eum abstuli. Num tibi videor tuum aprum abstulisse? Et si tuum putas fuisse, si solum eum in sylvam dimissem, eo casu tuus esse desisset, an maneret? Et quam actionem tecum, haberes, si desisset tuus esse: num in factum dari oporteret, quaero? Respondit: Laqueum videamus, ne intersit in publico an in privato posuerim: et si in privato posui, utrum in eo ila haeserit aper, ut expeditur se non possit ipse: an diutius liclando expediturus se fuerit. Summam famen hanc puto esse, ut si in meam potestatem pervenit, meus factus sit. Sin autem aprum meum ferum in suam naturalem laxitatem dimisisses, eo facto meus esse desisset, et actionem mihi in factum dari oportere: veluti responsum est, cum quidam poculum alterius ex nave eiecisset. Translation by A. Watson/J.A.C. Thomas: A wild boar fell into a trap which you had set for such purpose, and when he was caught in it, I released him and carried him off. Am I, then to be seen as stealing your boar? And supposing him to be yours, would he cease to be or remain your property if, having released him, I set him free in a wood? Again, if he ceased to be yours, what action would you have against me? Should it be an action in factum? These are my questions. The answer was this: Let us consider whether the boar was so caught that he could not extricate himself or could do so only by lengthy struggling. Still I think that the cardinal rule is that if he has come into my power, the boar has become mine. And if you release my boar into his natural state of freedom and thereby he ceased to be mine, I should be given an action in factum, as was the opinion given when someone threw another's cup from a ship.*

Our problem of interpretation in this fragment⁷¹, is that Proculus answers all these questions simply with the words: “*si in meam potestatem pervenit, meus factus sit*”. If it ended in my power, it’d be mine!

And so? Does it mean that the distinctions Proculus made are useless? Some scholars think so but I doubt that because I wouldn’t understand why Proculus would fuss with us. For me, the *potestas*, just like the *occupatio*, is a question of facts. To know if the hunter had sufficient *potestas* over the boar, we must check if he could easily access to the snare again.

I consider thus, that in the eyes of Proculus, the hunter could potentially become owner of the boar by the sole fact that it fell in the trap, because otherwise the famous jurist would have fooled us with useless talk.

We already know how the hunter lost the ownership on the boar: when it is freed, it turns to be a *res nullius*, because it has no *animus revertendi* and it has never been domesticated anyway. Proculus gives an *actio in factum* to the hunter in this case. And if the walker took the boar with him, then the hunter would have had an *actio furti* (action for theft) against him.

But what does interest us most here, is that Proculus says that the acquisition of the boar is a question of *potestas*.

There has been a controversy on the analysis of this *potestas*. Romans jurists wondered whether there was enough *potestas* on a wild animal when it was just wounded by the hunter or when the hunter was merely chasing it. Gaius (2 rer. cott., D.41.1.5.1⁷²) who probably represents the dominant position on this, writes that it is not enough to wound the animal, but that

⁷¹ An extended version of my interpretation can be read here: Jean-François Gerkens, *Aequè perituris...une approche de la causalité dépassante en droit romain Classique*. Liège 1997, 121-152 (<http://hdl.handle.net/2268/57929>). More recently, see also: Francesco Musumeci, “Proc. 2 epist. D.41.1.55: su un caso particolare di danno sanzionato con un’*actio in factum*”, in E.Chevreau etc. (Ed.), *Carmina Iuris. Mélanges en l’honneur de Michel Humbert*. Paris 2012, pp. 585-598.

⁷² Gaius (2 rer.cott.) D.41.1.5.1 : *Illud quaesitum est, an fera bestia, quae ita vulnerata sit, ut capi possit, statim nostra esse intellegatur. Trebatio placuit statim nostram esse et eo usque nostram videri, donec eam persequamur, quod si desierimus eam persequi, desinere nostram esse et rursus fieri occupantis: itaque si per hoc tempus, quo eam persequimur, alius eam ceperit eo animo, ut ipse lucrifaceret, furtum videri nobis eum commississe. Plerique non aliter putaverunt eam nostram esse, quam si eam ceperimus, quia multa accidere possunt, ut eam non capiamus: quod verius est.* Translation by A.Watson/J.A.C.Thomas : The question has been asked whether a wild animal, so wounded that it may be captured, is already ours. Trebatius approved the view that it becomes ours at once and that it is ours so long as we chase after it; but, if we abandon the chase, it ceases to be ours and is open to the first taker. Hence, if, during the period of our pursuit, someone else should take the animal, with the intent to profit thereby, he is to be regarded as stealing from us. The majority opinion was that the beast is ours only if we have captured it because many circumstances can prevent our actually seizing it. And that is the sounder opinion.

you need to hold it, because until then, many things can happen (*quia multa accidere possunt*).

But in my opinion, we need to distinguish between animals the hunter wants to catch alive or dead. For animals he intends to catch alive, it might be difficult to hold it with his hands anyway (it would certainly be, if we imagine a living wild boar!). Therefore, Proculus' text seems to allow us to admit that for this kind of hunt, the hunter could become owner since the moment in which the animal is caught in the trap.

After this brief overview of the Roman solutions for the acquisition of property on wild animals, we can proceed to the case that is our primary concern: the acquisition by occupation of islands emerging out of the sea.

4.2. Occupatio of islands rising from the sea (*insula in mari nata*)

Actually, for the islands rising from the sea, the rule is the same as for the wild animals. Gaius writes that, because they have never been owned by nobody, the rule is clear: "*occupantis fit!*": they belong to the first person who occupies it:

Gai. (2 rer. cott.) D.41.1.7.3:

Insula quae in mari nascitur (quod raro accidit) occupantis fit: nullius enim esse creditur. in flumine nata (quod frequenter accidit), si quidem mediam partem fluminis tenet, communis est eorum, qui ab utraque parte fluminis prope ripam praedia possident, pro modo latitudinis cuiusque praedii, quae latitudo prope ripam sit: quod si alteri parti proximior sit, eorum est tantum, qui ab ea parte prope ripam praedia possident.

An island arising from the sea (a rare occurrence) belongs to the first taker, for it is held to belong to no one. An island arising in a river (a frequent occurrence), if indeed it appears in the midstream of the river, is the common property of those who have holdings on either bank of the river to the extent that those holdings follow the bank; but if it lies to one side of the river rather than the other, it belongs only to those who have holdings on that bank⁷³.

⁷³ Translation by A. Watson/J.A.C. Thomas.

But Gaius writes that it rarely happens to have an island rising from the sea. It happens more frequently in rivers. But for islands formed in rivers, the acquisition happens over *occupatio* only for *agri limitati*, this means acres measured by *agrimensores*⁷⁴. In other cases, the islands formed in rivers belong to the owners of the river banks.

Anyway, for the case of the islands rising in the sea, Gaius writes that it rarely happens and therefore, he has no case law, no examples to offer. Then again: ‘rarely’ does not mean ‘never’. During the antiquity, the cases of the Aeolian islands (North of Sicily) were well known and the great Aristotle has written about them⁷⁵. The absence of case law about those islands was no big deal for Gaius I guess, as the legal issue didn’t seem complicated.

5. The Roman Law of *occupatio* applied to the case

As far as I know, Roman jurists did never address this problem directly. We saw that Gaius (2 rer. cott. D.41.1.7.3⁷⁶) writes that it rarely occurs to

⁷⁴ Ulp. (68 ed.) D. 43.12.1.6: *Si insula in publico flumine fuerit nata inque ea aliquid fiat, non videtur in publico fieri. illa enim insula aut occupantis est, si limitati agri fuerunt, aut eius cuius ripam contingit, aut, si in medio alveo nata est, eorum est qui prope utrasque ripas possident.* Translation by A.Watson/T.Braun: If an island comes into being in a public river and something is done on the island, it is not held that it is being done on public property. For the island belongs either to the person who first occupies it if the fields have fixed boundaries, or to the person whose bank it adjoins, or if it has come into being in the middle of the channel, to those who possess each bank nearby; Flor. (6 Inst.) D. 41.1.16: *In agris limitatis ius alluvionis locum non habere constat: idque et divus Pius constituit et Trebatius ait agrum, qui hostibus devictis ea condicione concessus sit, ut in civitatem veniret, habere alluvionem neque esse limitatum: agrum autem manu captum limitatum fuisse, ut sciretur, quid cuique datum esset, quid venisset, quid in publico relictum esset.* Translation by A. Watson/J.A.C.Thomas : In the case of lands measured out, it is generally agreed that the right of alluvion has no place. The deified Pius ruled to this effect and Trebatius says that land granted to defeated enemies on the condition that it becomes civic property does have the right of alluvion and is not measured out; but in the case of land taken by force it is measured out so that it might be known what was given to whom, what was sold, and what remained public property.

⁷⁵ Aristotle, *Meteorology* 2.8.367.

⁷⁶ Text and translation of this text (Gai. D.41.1.7.3) is above, at footnote 73. A similar rule can be found in another fragment of the Digest, written by the jurist Paul (54 ed.) D.41.2.1.1: *Dominiumque rerum ex naturali possessione coepisse Nerva filius ait eiusque rei vestigium remanere in his, quae terra mari caeloque capiuntur: nam haec protinus eorum fiunt, qui primi possessionem eorum adprehenderit. Item bello capta et insula in mari enata et gemmae lapilli margaritae in litoribus inventae eius fiunt, qui primus eorum possessionem nactus est.* Translated by A.Watson/J.A.C.Thomas: The younger Nerva says that the ownership of those things originated in natural possession and that a relic thereof survives in the attitude to those things which are taken on land, sea, or in the air; for such things forthwith become the property of those who first take possession of them. In like manner, things captured in war, islands arising in the sea, and gems, stones, and pearls found on the seashore become the property of him who first takes possession of them.

see an island rising from the sea. So, we can easily guess what he would write about islands that rise, then sink, and then rise again several times? The only thing we know for sure, is that the island is a *res nullius* and that the first person who occupies it, owns it.

The sea itself is certainly a *res communis* (a thing common to everyone). We can read this in a fragment of Marcian:

Marcian. (3 Inst.) D.1.8.2.pr.-1:

Quaedam naturali iure communia sunt omnium, quaedam universitatis, quaedam nullius, pleraque singulorum, quae variis ex causis cuique adquiruntur. 1. Et quidem naturali iure omnium communia sunt illa: aer, aqua profluens, et mare, et per hoc litora maris.

Some things belong in common to all men by *jus naturale*, some to a community corporately, some to no one, but most belong to individuals severally, being ascribed to someone on one of various grounds. 1. And indeed by natural law the following belong in common to all men: air, flowing water, and the sea, and therewith the shores of the sea⁷⁷.

And what about the sea ground? When it was far from the shore, the Romans did not consider that it was possible to own it. It was different when someone built something in the sea. Because then, he who constructed something became owner of the building. But this is of course rather different from the case of Ferdinanda, where nothing has ever been built⁷⁸.

So, I suggest we could consider if we can't find any analogy with the wild animal. So, there's my boar again!

6. Attempt of conclusion

In my opinion, it is possible to compare Ferdinanda with a wild animal that recovered its natural liberty. Indeed, the volcano that sank under the

⁷⁷ Translation by A.Watson/D.N.MacCormick.

⁷⁸ To build any construction in the sea, it was necessary to have an authorisation from the praetor, as it is written in a text of Pomponius (6 ex Plaut.) D.41.1.50pr.: *Quamvis quod in litore publico vel in mari exstruxerimus, nostrum fiat, tamen decretum praetoris adhibendum est, ut id facere liceat: immo etiam manu prohibendus est, si cum incommodo ceterorum id faciat: nam civilem eum actionem de faciendo nullam habere non dubito.* Translation by A.Watson/J.A.C.Thomas: Although what we erect on the shore or in the sea becomes ours, a decree of the praetor, nevertheless, should be obtained, authorising the erection; indeed more, one should be physically prevented, if he builds to the inconvenience of the public; for I have no doubt that he has no civil action in the matter.

sea level can't be called an island anymore. There is no doubt about this in our modern international law⁷⁹: Ferdinandea is not an island! For this reason, the volcano cannot have any owner. Just like the wild animal that escaped from our custody. The island escaped by not being an island anymore and not being ownable by anyone.

The fact that the volcano is still the same does not change anything to it. It does not matter that the thing can still be identified. It is the same for the wild animal that was in our custody and escaped. We might recognise it, but we don't own it anymore. The only thing that counted, was that it escaped from our custody. The fact that the previous owner could recognise it in the wood had no legal consequence. If anyone else caught the animal, he would become the legal owner of it and the previous owner could do nothing against this.

An argument that could be opposed to my proposal could be that when you throw a movable thing (like a golden cup) in the sea, the owner remains the owner and does not lose ownership of the cup because he keeps the *animus domini*. Shouldn't it be the same with the island? It is true that the island is not anywhere but in a precise place, but I don't think it matters. The island is one of those things of which you lose ownership when you lose the *corpus*, the body. We can actually read this in two fragments of Paul, who cites Labeo and Nerva the younger.

Paul. (54 ed.) D.41.2.3.17:

Labeo et Nerva filius responderunt desinere me possidere eum locum, quem flumen aut mare occupaverit.

Labeo and the younger Nerva ruled that I cease to possess land which is inundated permanently by a river or by the sea⁸⁰.

Paul. (15 Sab.) D.41.2.30.3:

Item quod mari aut flumine occupatum sit, possidere nos desinimus, aut si is qui possidet in alterius potestatem pervenit.

Likewise, we cease to possess what is occupied by the sea or a river or if the person in possession should pass into the power of another⁸¹.

⁷⁹ See fn. 54.

⁸⁰ Translated by A.Watson/J.A.C.Thomas.

⁸¹ Translated by A.Watson/J.A.C.Thomas.

So, there we have another similarity between the wild animal and the island that rises from the sea: the possession of the one and the other gets lost when you lose the factual power over the animal or the island.

A supplementary argument for my analysis is that the island, just like the wild animal, is a *res nullius* in the moment when it starts to exist. You can't say the same for other *res nullius* or *derelictae*.

And yet another argument is that both the animal and the island return to their previous state of *res nullius* without the intervention of a third person, but – if I may say so – on their own. The movable thing thrown in the sea, on the contrary, has to be precisely thrown by a third person. This analogy is certainly much less accurate than the analogy with the wild animal.

Still, a wild animal is a movable thing and rather different from an island. Are we sure that we can use a rule designed for a movable thing in the case of the island? I actually don't think that it is problematic! You could pretend that there is a great difference between movable things and unmovable things, but my submission, is that our island is not any unmovable thing. One important characteristic of immovable things, is that they cannot disappear (so you can't steal them). But actually, Ferdinandea succeeded in disappearing. In general, only movable things disappear.

Today, Ferdinandea can't have any owner just like the sea ground can't have any. So, it can't even really be called an immovable thing anymore! Therefore, the analogy with wild animals is just the most accurate.

And this leads me to the only possible answer to the question I made in the beginning: Who owns Ferdinandea today? Nobody and if it rises again, it will be of the first occupier.

Of course, this solution is purely theoretical because it is not said that Roman law will be questioned or needed in case this happens. The solution is not immediately Roman either, it is inspired by Roman jurisprudence. I'm only providing an impartial legal solution based on Roman law, like the UN Convention on the Law of the Sea of Montego Bay is based on Roman law, when it defines islands and owners of islands...