Manuscript version: Published Version
The version presented in WRAP is the published version (Version of Record).

Persistent WRAP URL:
http://wrap.warwick.ac.uk/111605

How to cite:
The repository item page linked to above, will contain details on accessing citation guidance from the publisher.

Copyright and reuse:
The Warwick Research Archive Portal (WRAP) makes this work by researchers of the University of Warwick available open access under the following conditions.

Copyright © and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners. To the extent reasonable and practicable the material made available in WRAP has been checked for eligibility before being made available.

Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

Publisher’s statement:
Please refer to the repository item page, publisher’s statement section, for further information.

For more information, please contact the WRAP Team at: wrap@warwick.ac.uk
Falconry, the art of hunting with birds (Frederick II) and a living human heritage (UNESCO), has left many traces, from western Europe and northern Africa to Japan. The oldest ascertained testimonies belong to the first millennium BCE. The present book, a cooperation between falconers and scientists from different branches, addresses falconry and bird symbolism on diverse continents and in diverse settings.
Raptor and human – falconry and bird symbolism throughout the millennia on a global scale
Advanced studies on the archaeology and history of hunting, vol. 1.1-1.4

Edited by the ZBSA/Centre for Baltic and Scandinavian Archaeology in the Foundation of the Schleswig-Holstein State Museums, Schloss Gottorf, Schleswig (northern Germany)
Raptor and human –
falconry and bird symbolism throughout the millennia on a global scale

Edited by
Karl-Heinz Gersmann and Oliver Grimm

Publication in considerable extension of the workshop at the Centre for Baltic and Scandinavian Archaeology (ZBSA) in Schleswig, March 5th to 7th 2014
Cover picture: Skilled eagle master. Western Mongolia, August 2011 (photo used with the permission of Dr. Takuya Soma).

Top to the left: Seal of the Danish king Knud IV (late 11th century). Redrawing. Taken from M. Andersen/G. Tegnér, Middelalderlige seglstamper i Norden (Roskilde 2002) 129.
Falconry definition

Falconry is defined as the taking of quarry in its natural state and habitat by means of trained birds of prey (according to the International Association for Falconry and Conservation of Birds of Prey [IAF] = www.iaf.org).

Frederick II of Hohenstaufen was an early global actor in the 13th century, bringing together falconers and falconry traditions from far and wide.

UNESCO recognition of falconry as Intangible Cultural Heritage of Humanity (cf. Hewicker in this book, Fig. 6).
Book sponsors

The Archives of Falconry (Boise, Idaho, USA)

Association Nationale des Fauconniers et Autoursiers (France)

(International Council for Game and Wildlife Conservation
CIC – Conservation through the sustainable use of wildlife)

(Cultural Division, CIC/Headquarters, and CIC/German Delegation)

Deutscher Falkenorden (DFO)

Emirates Falconers’ Club

European Foundation for Falconry and Conservation

Hagedoorn Stichting (Netherlands)
# List of contents

## Book 1

### Forewords
- Claus v. Carnap-Bornheim and Berit V. Eriksen ........................................ 1
- His Highness Sheikh Mohammed Bin Zayed Al Nahyan .................................. 2
- Oliver Grimm ........................................................................................................ 4
- Karl-Heinz Gersmann ......................................................................................... 6
- Oliver Grimm and Karl-Heinz Gersmann ........................................................... 9
- Adrian Lombard .................................................................................................. 10

### Glossaries
- Bird glossary ........................................................................................................ 12
- Falconry glossary ............................................................................................... 13

### Indices
- Short index: by author ......................................................................................... 14
- Short index: by region .......................................................................................... 16
- Short index: by topic ........................................................................................... 16

### Summaries
- Summary English ................................................................................................. 18
- Summary German ................................................................................................ 26
- Summary Russian ................................................................................................ 35
- Summary Arabic ................................................................................................... 44

## Chapter 1 – Falconry in action and raptor propagation ........................................ 53

- Thomas Richter
  - Practicalities of falconry, as seen by a present-day falconer .............................. 55

- Mohammed Ahmed Al Bowardi, Majed Ali Al Mansoori, Margit Gabriele Müller,
  - Omar Fouad Ahmad and Anwar S. Dawood
  - Falconry in the United Arab Emirates ................................................................. 87

- Ata Eyerbediev
  - This world is a hunting field and good deeds are the prey – the ethical side of tradition ........................................................................................................ 101

- Dennis Keen
  - The hunter, the eagle, and the nation: Qazaq traditional knowledge in the
    post-Soviet world ................................................................................................. 113

- Keiya Nakajima
  - Japanese falconry from a practical point of view ........................................... 127
<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karl-Heinz Gersmann</td>
<td>Some thoughts on the emergence and function of falconry from the perspective of a practicing falconer</td>
<td>141</td>
</tr>
<tr>
<td>Ellen Hagen</td>
<td>From museum education to practical falconry</td>
<td>147</td>
</tr>
<tr>
<td>S. Kent Carnie</td>
<td>North American falconry, from its earliest centuries</td>
<td>157</td>
</tr>
<tr>
<td>S. Kent Carnie</td>
<td>The Archives of Falconry: a North American effort to preserve the tangible heritage of falconry</td>
<td>165</td>
</tr>
<tr>
<td>Jevgeni Shergalin</td>
<td>Falconry Heritage Trust: history, structure, goals, current and future work</td>
<td>175</td>
</tr>
<tr>
<td>Hans-Albrecht Hewicker</td>
<td>The History of the <em>Deutscher Falkenorden</em> (DFO) and its international relations</td>
<td>187</td>
</tr>
<tr>
<td>Tom J. Cade and Robert B. Berry</td>
<td>The influence of propagating birds of prey on falconry and raptor conservation</td>
<td>195</td>
</tr>
</tbody>
</table>

**Chapter 2 – Raptors in zoology and biology** 221

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frank E. Zachos</td>
<td>Birds of prey – An introduction to their systematics, taxonomy and conservation</td>
<td>223</td>
</tr>
<tr>
<td>Anita Gamauf</td>
<td>Palaearctic birds of prey from a biological point of view</td>
<td>233</td>
</tr>
</tbody>
</table>

**Chapter 3 – Human evolution, history of domestication and the special role of the raptor-human relationship** 255

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kristiina Mannermaa</td>
<td>Humans and raptors in northern Europe and northwestern Russia before falconry</td>
<td>257</td>
</tr>
<tr>
<td>Dirk Heinrich</td>
<td>Are trained raptors domesticated birds?</td>
<td>277</td>
</tr>
<tr>
<td>Walter Bednarek</td>
<td>Emotions and motivation of the falconer and his relationship with the trained raptor – attempt at an evolutionary-biological interpretation</td>
<td>285</td>
</tr>
<tr>
<td>Sara Asu Schroer</td>
<td>A view from anthropology: falconry, domestication and the ‘animal turn’</td>
<td>313</td>
</tr>
</tbody>
</table>
Chapter 4 – Raptors and religion, falconry and philosophy ......................... 323

David A. Warburton
Egypt and earlier: birds of prey in the human mind at the dawn of history ............. 325

By Kerry Hull, Mark Wright and Rob Fergus
Avian actors: transformation, sorcery, and prognostication in Mesoamerica ............ 347

Daniela Boccassini
Falconry as royal “delectatio”: understanding the art of taming and its philosophical foundations in 12th- and 13th-century Europe ......................................... 367

Chapter 5 – History of falconry: pioneers of research ............................... 389

Leor Jacobi and Mark Epstein
Hans J. Epstein: falconry’s extraordinary historian ............................................ 391

Rolf Roosen
“The noblest form of hunting ever” – Kurt Lindner and falconry ......................... 403

Chapter 6 – History of falconry: basic reflections and new perspectives ........ 421

Ivan Pokrovsky
Stable isotope analysis in raptor and falconry studies ........................................ 423

Alexandra Pesch
Confiding birds: some short remarks on the “head-with-bird-on-top-of-horse-motif” on Migration Period gold bracteates ................................................................. 431

Vera Henkelmann
The evidential value of falconry depictions in book illuminations, on seals, and on tapestries in middle Europe ................................................................. 449

Wietske Prummel
The archaeological-archaeozoological identification of falconry – methodological remarks and some Dutch examples ....................................................... 467

Book 2

Oliver Grimm
From Aachen in the west to Birka in the north and Mikulčice in the east – some archaeological remarks on bird of prey bones and falconry as being evidenced in premodern settlement contexts in parts of Europe (pre and post 1000 AD) ..................... 479
<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ulrich Schmölecke</td>
<td>Central European burials with birds of prey from the middle of the 1st millennium AD – a short survey of the early history of archaeozoology in connection with these burials</td>
</tr>
<tr>
<td>Stephan Dusil</td>
<td>Falconry in the mirror of normative sources from Central Europe (5th–19th centuries)</td>
</tr>
<tr>
<td>Baudouin Van den Abeele</td>
<td>“On the dunghill”: the dead hawk in medieval Latin and French moralising literature</td>
</tr>
<tr>
<td>Ricardo Manuel Olmos de León</td>
<td>The care of hunting birds in the late Middle Ages and Renaissance according to the Spanish falconry treatises (1250–1565)</td>
</tr>
<tr>
<td>Robert Nedoma</td>
<td>New words for new things – an overview on lexical borrowing</td>
</tr>
<tr>
<td>Pavel Kosintsev and Aleksei Nekrasov</td>
<td>An archaeozoological survey of remains of birds of prey in the West Eurasian steppe</td>
</tr>
<tr>
<td>Leonid Yablonsky (†)</td>
<td>Were the Early Sarmatian nomads falconers in the southern Urals, Russia, during the 4th century BC?</td>
</tr>
<tr>
<td>Ulambayar Erdenebat</td>
<td>A contribution to the history of Mongolian falconry</td>
</tr>
<tr>
<td>Takuya Soma</td>
<td>Ethnoarchaeology of falconry in nomadic and sedentary society across Central Asia – rethinking the “Beyond the Boundary” phenomenon of ancient falconry culture</td>
</tr>
<tr>
<td>Ádám Bollók</td>
<td>A history of the Hungarians before the end of the ninth century: a reading</td>
</tr>
<tr>
<td>Claus Dobiat, with an archaeological-historical introduction by Oliver Grimm</td>
<td>The rider fibula from Xanten in western Germany (around 600 AD) with a reference to the falconry of nomadic horsemen of the Eurasian steppe</td>
</tr>
<tr>
<td>Hans Nugteren</td>
<td>Names for hunting birds and falconry terms in Kipchak (Northwestern Turkic)</td>
</tr>
</tbody>
</table>
| Jürgen Udolph | Eastern Slavic names of birds of prey – traces of contact with Turkic peoples?
Chapter 8 – Roman Empire: the West (Rome) and East (Constantinople) with very little evidence for falconry up to the 5th/6th centuries. .......................... 683

Florian Hurka
Falconry and similar forms of hunting according to ancient Greco-Roman sources ........ 685

Andreas Külzer
Some notes on falconry in Byzantium .......................................................... 699

Chapter 9 – Case study: raptor catching, raptor trade and falconry in northern Europe. ................................................................. 709

Oliver Grimm and Frans-Arne Stylegar
A short introduction to Norway, its Viking Age (800–1000/1050) and the question of the origin of falconry in the country ................................................ 711

Terje Gansum
The royal Viking Age ship grave from Gokstad in Vestfold, eastern Norway, and its link to falconry ................................................................. 717

Ragnar Orten Lie
Falconry, falcon-catching and the role of birds of prey in trade and as alliance gifts in Norway (800–1800 AD) with an emphasis on Norwegian and later foreign participants in falcon-catching ................................................................. 727

Inge Særheim
Place names from south-western Norway with reference to the catching of falcons ........ 787

Lydia Carstens
Land of the hawk: Old Norse literary sources about the knowledge and practice of falconry ................................................................. 799

Maria Vretemark
Birds of prey as evidence for falconry in Swedish burials and settlements (550–1500 AD) .... 827

Sigmund Oehrl
An overview of falconry in Northern Germanic and insular iconography, 6th/7th centuries AD to c. 1100 AD ................................................................. 841

Åsa Ahrland
Imagery of birds of prey and falconry in the High and Late Middle Ages (1150–1500) in the Nordic countries – reflections of actual hunting practices or symbols of power? ........ 861

Joonas Ahola, Frog and Ville Laakso
The roles and perceptions of raptors in Iron Age and medieval Finno-Karelian cultures through c. AD 1500 ................................................................. 887
Matti Leiviskä
The role of birds of prey in Finnish place and personal names .................................. 935

Anne Birgitte Gotfredsen
Traces of falconry in Denmark from the 7th to the 17th centuries ............................. 947

Book 3

Dirk Heinrich, with an appendix by Wolf-Rüdiger Teegen
Falconry in the Viking Age trading centre of Haithabu and its successor, the medieval town of Schleswig? ................................................................. 973

Natascha Mehler, Hans Christian Küchelmann and Bart Holterman
The export of gyrfalcons from Iceland during the 16th century: a boundless business in a proto-globalized world ................................................................. 995

Brian Smith and John H. Ballantyne
The collection of falcons and ‘hawk hens’ in Shetland and Orkney, 1472–1840 .......... 1021

Kristopher Poole
Zooarchaeological evidence for falconry in England, up to AD 1500 ....................... 1027

David Horobin
The pen and the peregrine: literary influences on the development of British falconry (8th century to the present) ................................................................. 1055

Eric Lacey
The charter evidence for falconry and falcon-catching in England and Wales, c. 600–c. 1100 ................................................................. 1089

Richard Almond
Hunting from the fist: looking at hawking and falconry in late medieval England (1000–1500) through art history ................................................................. 1117

Kester Freriks
Bird trapping and falconry in Valkenswaard, the Netherlands, from the 17th to the 20th centuries – about wild birds as jewels on the falconer’s hand ............................. 1149

Ignaz Matthey
The symbolism of birds of prey and falconry in the visual arts of the Netherlands, 1400–1800 ................................................................. 1171
Chapter 10 – Raptors and falconry in premodern Europe: overall studies .......... 1193

José Manuel Fradejas Rueda
Falconry on the Iberian Peninsula – its history and literature .............................. 1195

Algirdas Girininkas and Linas Daugnora
Premodern hunting with birds of prey in the historical Lithuanian lands:
entertainment, politics or economic necessity? ...................................................... 1215

Liina Maldre, Teresa Tomek and Jüri Peets
Birds of prey from Vendel Age ship burials of Salme (c. 750 AD) and in Estonian
archaeological material ......................................................................................... 1229

Andrei V. Zinoviev
Early falconry in Russia .......................................................................................... 1251

Baudouin Van den Abeele
Medieval Latin and vernacular treatises on falconry (11th–16th c.): tradition, contents,
and historical interest .............................................................................................. 1271

Chapter 11 – Raptors and falconry in premodern Europe: specific studies ........ 1291

Babette Ludowici
Chamber grave 41 from the Bockshornschanze near Quedlinburg (central Germany):
evidence of the practice of falconry by women from the middle of the 1st century? .... 1293

Ralf Bleile
Falconry among the Slavs of the Elbe? ................................................................... 1303

Wolf-Rüdiger Teegen
The skeletons of a peregrine and a sparrowhawk and the spatial distribution of birds
of prey in the Slavonic fortification of Starigard/Oldenburg (Schleswig-Holstein,
northern Germany, 7th–13th centuries) .................................................................. 1371

Zbigniew M. Bochenski, Teresa Tomek, Krzysztof Wertz and Michał Wojenka
Falconry in Poland from a zooarchaeological perspective ..................................... 1399

Virgílio Lopes
Hunting scene with hawk from Mértola in Portugal (6th/7th centuries AD) .......... 1411

Cliff A. Jost
A depiction of a falconer on a disc brooch of the 7th century from the cemetery
of Münstermaifeld, District of Mayen-Koblenz, south-western Germany ............... 1421

Katharina Chrubasik
The tomb of the Polish King Władysław II Jagiełło (1386–1434) and its possible
connection with falconry ......................................................................................... 1427
Andreas Dobler  
The Landgraves of Hesse-Kassel and falconry in the 18th century. Depictions of a hunt with falcons in the Schloss Fasanerie museum near Fulda, Hesse (Germany) ........ 1439

Book 4

Martina Giese  
The “De arte venandi cum avibus” of Emperor Frederick II ......................... 1459

Martina Giese  
Evidence of falconry on the European continent and in England, with an emphasis on the 5th to 9th centuries: historiography, hagiography, and letters ......................... 1471

Agnieszka Samsonowicz  
Falconry in the history of hunting in the Poland of the Piasts and the Jagiellons (10th–16th centuries) ................................................................. 1491

Sabine Obermaier  
Falconry in the medieval German Tristan romances ................................. 1507

Baudouin Van den Abeele  
Falconry in Old French literature .............................................................. 1519

Ingrid A. R. De Smet  
Princess of the North: perceptions of the gyrfalcon in 16th-century western Europe .... 1543

Péter Kasza  
Falconry literature in Hungary in an international perspective ...................... 1571

Robert Nedoma  
Germanic personal names before AD 1000 and their elements referring to birds of prey. With an emphasis upon the runic inscription in the eastern Swedish Vallentuna-Rickeby burial ................................................. 1583

Jürgen Udolph  
Falconry and bird catching in Germanic and Slavonic place, field and family names .... 1603

Chapter 12 – Raptors and falconry in premodern times in areas outside Europe . 1629

Karin Reiter  
Falconry in the Ancient Orient? I. A contribution to the history of falconry ............... 1631

Karin Reiter  
Falconry in the Ancient Orient? II. The Sources ......................... 1643

XII
Karin Reiter
Falconry in Ugarit .................................................. 1659

Susanne Görke and Ekin Kozal
Birds of prey in pre-Hittite and Hittite Anatolia (c. 1970–1180 BCE):
textual evidence and image representation ........................................ 1667

Paul A. Yule
Archaeology of the Arabian Peninsula in the late pre-Islamic and early Islamic periods
(1st millennium CE): background sketch for early falconry ..................... 1691

Anna Akasoy
Falconry in Arabic literature: from its beginnings to the mid- 9th century ........ 1769

Touraj Daryae and Soodabeh Malekzadeh
Falcons and falconry in pre-modern Persia ......................................... 1793

Ulrich Schapka
The Persian names of birds of prey and trained raptors in their historical development .... 1809

Leor Jacobi
‘This Horse is a Bird Specialist’: Falconry intrudes upon the Palestinian Mishnah in
Sasanian Babylonia ........................................................................ 1831

Leslie Wallace
The early history of falconry in China (2nd to 5th centuries AD) and the question
of its origins ......................................................................... 1847

Fangyi Cheng
From entertainment to political life – royal falconry in China between
the 6th and 14th centuries ...................................................... 1865

Fangyi Cheng and Leopold Eisenlohr
Ancient Chinese falconry terminology ............................................. 1883

Ho-tae Jeon
Falconry in ancient Korea .................................................. 1891

Takayo Kaku
Ancient Japanese falconry from an archaeological point of view with a focus on the
early period (5th to 7th centuries AD) ........................................ 1919

Yasuko Nihonmatsu
Japanese books on falconry from the 13th to the 17th centuries ............... 1937

José Manuel Fradejas Rueda
Falconry in America – A pre-Hispanic sport? ................................... 1947
Princess of the North: perceptions of the gyrfalcon in 16th-century western Europe

By Ingrid A. R. De Smet

Keywords: Gyrfalcon (Falco rusticolus), falconry/hawking, Renaissance France and Italy, the gyr in the history of science, the gyr as literary theme

Abstract: For centuries, European falconers considered the arctic and sub-arctic gyrfalcon (Falco rusticolus) an exquisite bird of prey, praised for her size and strength, her ability in the hunt, and her rarity. Whilst the Medieval gyr is now relatively well-known, less attention has been paid to the gyr in the Renaissance, especially in regions to which she is not native. Using selected ornithological and hunting treatises as well as poems and documentary sources, this paper examines the fascination with this special bird of prey in the European Renaissance, with a particular emphasis on 16th-century and early 17th-century France and Italy.

Il ne se trouve point de Gerfaut sinon és mains des Fauconniers des grands Seigneurs, & est un oiseau bien rare à voir.

A Gyr can only be found in the hands of falconers in the service of great lords, and she is a rare bird to behold.

So wrote Guillaume Bouchet (c. 1513–1594) in his Recueil des oiseaux de proye (BOUCHET 1585, 118°), closely modelling his statement on the observation made by Pierre Belon (1517–1564) in his pioneering ornithological treatise, L’Histoire de la nature des oyeaux of 1555 (GLARDON 1997, 95–96).1 The sentiment was echoed by the French statesman and historian Jacques Auguste de Thou (1553–1617), towards the end of the First Book of his Latin didactic poem on falconry, the Hieracosphioy libri III, first published in 1582–1584:

Nec Buteonem humiles pascunt impune penates.
Magnates hac cura adeo, et damnosa voluptas,
Immensique decent sumptus, regesque superbos.2

1 Unless otherwise indicated, all translations are my own. In line with specialist English usage, where in falconry terms the female raptor is the default, I refer to the gyrfalcon and other birds of prey as ‘she’, and to the tiercel as ‘he’. For the male gyr specifically, I use the term gyrkyn (traditionally spelt jerkin, literally ‘small gyr’).
2 De Smet 2013, 270. On the term buteo for the gyr, see below.
It is not a humble home that can freely keep a Gyr. [For falconry] with its indulgent pleasures and immense costs, especially befits grandees and proud kings.

Indeed, for centuries, Western European falconers considered the gyrfalcon, the largest of the falcon species and currently classified as *Falco rusticolus,* an exquisite bird of prey, praised for her size and strength, her ability in the hunt, and her rarity (Fig. 1). Predictably, therefore, many of the gyr’s characteristics gave rise to speculation, from her name to her nesting sites and natural prey. On the other hand, the deployment of imported and specially trained gyrs in spectacular hunting parties inspired compelling poetic images. But, if the medieval gyr has now been relatively well studied (Van den Abeele 1994, 59–61; Oggin 2004, 12–13 and passim; Melani 2013), the ensuing period has been less well served: what did the Renaissance really know about this highly prized bird of prey – especially in countries to which the gyr was not indigenous? How was she used in the hunt? And what can poetic texts add to the information found in strictly technical or historical sources? To answer these questions, this paper examines the fascination with this special bird of prey in the European Renaissance, with a particular emphasis on 16th-century and early 17th-century France and Italy (whose ornithological and falconry traditions are strongly interwoven). We shall first consider issues raised

---

3 PotaPov/Sale (2005, 23) break a lance for the restoration of the scientific term *F. gyrfalco.*
4 The use of literary texts as a source for the history of falconry is a vexing question (see, e.g., Van den Abeele 1994, 148–150). Whilst exercising due regard for literary *topoi,* I shall draw here mostly on poets with close links to the court: some may at one point have practised hawking themselves, whilst others are likely to have been privileged spectators or were otherwise well-informed (see De Smet 2013, 138–159 and passim).
by the raptor’s name and her natural environment, before moving to her use in the hunt and the moral and poetic images that she became associated with.

THE GYRFALCON: A NAME AND ITS PITFALLS

If the historic nomenclature of birds of prey is notoriously unstable, the debate was particularly vivid in the case of the gyr. From the earliest European falconry treatises, the etymology of the first element of the predator’s name, which recurs in many vernaculars (gerfaut; gerfalke or gierfalte; gierwolk; girifalco; gerfalco or gyrfalcon; gerfalte) as well as in Medieval Latin (girfalco, girifalco, gyrofalcio), has evoked much conjecture. No doubt following an older source, the 13th-century intellectual Albertus Magnus linked the gyr’s name to the later Latin gyare, ‘to circle’, and this etymology filtered through, amongst others, into the medieval French translations of his De falconibus (‘On Falcons’) (Smets 2010, 208; 322). Emperor Frederick II of Hohenstaufen (1194–1250) provided an alternative explanation in his famous treatise De arte venandi cum avibus (‘On the art of hunting with birds’), which was not available in print until 1596: here, the gyrfalcon’s designation was traced back to the Greek terms kyrios (‘lord’) and bieros (‘sacred’), the latter no doubt suggested by the Greek noun bieszax, which was commonly (if mistakenly) linked to the saker (Falco cherrug). Both sets of explanations proved to be long-lived: directly and often indirectly, and sometimes only to be questioned, they found their way into humanist ornithological treatises such as Conrad Gessner’s Historia animalium (1555, 67) and Ulisse Aldrovandi’s Ornithologia (1599, 471), into dictionaries, and even the first edition of Charles d’Arcussia’s relatively independent hunting tract, La Fauconnerie (1598, 81).5

As humanists attempted to reconcile vernacular testimonies and traditions about the gyr with the classification of birds in Ancient works of natural history, notably by Aristotle and Pliny, as well as medieval sources (insofar as they were still known), the Greek and Latin avian terminology similarly elicited a variety of opinions, but no satisfactory resolution was reached. Gessner, for instance, borrowed the unusual Latin term hierofalchus from Paolo Giovio (1483–1552), who briefly mentioned gyrfalcons in his Libellus de legatione Basillii Magni, a compendium of the Italian’s knowledge of Moscow resulting from his reading and his conversations with the Russian diplomat Dmitrij Gerasimow who visited Rome in 1525. The Swiss ornithologist debated to what extent the name hierofalchus or bierofalco (the term used by Belisario Acquaviva, Duke of Nardo, in his De aucupio) could be deemed equivalent to the term herodius, which Giovio also used, albeit with some distinction from the gyr, but which Aristotle had reserved for a species of eagle (‘the heron-killer’, HA 9, 1, 32).6

Gessner (1555, 66) saw a supporting argument for the equation of hierofalchus with herodius in the Italian word agirofaldo, ‘since the Italians call the heron ag<h>iron’ (‘nam Itali ardeam agironem vocant’) . In contrast, Belon hazarded that the bird’s French denomination might have been based on a combination of gyps (‘vulture’) and falco, although he immediately rejected this alternative in consideration of the cowardly nature of the gypaëus (‘buzzard’), which he deemed incompatible with the courageous character of the gyr (Glardon 1997, 94; cf. Fig. 2). Aldrovandi criticised both Gessner and Belon’s (1599, 471–472) etymological suggestions, opting instead for the Latin term gyrfalco, since he firmly believed that this term and similar vernacular forms were all derivations from the German. Etymologists currently do associate gyr- with the German word for vulture (gir), even though the birds were valued very differently (Van den Abeele 1994, 60n.). However, the idea that gyr- may in fact relate to another root in Old Norse (verðr), which already refers to the falcon’s ‘worth’, her

5 The statement disappeared from later editions.
6 The 13th-c. encyclopedic writer Thomas of Cantimpré likewise used the term herodius in relation to the gyrfalcon (Van den Abeele 1994, 59).
‘nobility’ – rather like the German Edelfalke – ought not to be dismissed (Weekley 1919; de Vries 1962, 161).

Be that as it may, when in the second half of the 16th century Jacques Auguste de Thou sought to impress his contemporaries (princes, scholars and poets alike) with his learned Latin poem on falconry, he could not accept a hybrid, medieval coinage such as hierofalco or girifalco for his own description of the species. Comparing Aristotle and Pliny’s statements about ‘the most potent bird of prey’, de Thou ventured that buteo (ordinarily translated into French as busard, i.e. ‘buzzard’) was the correct Classical Latin term for the gyr (de Smet 2013, 394–397). The proposal is not as eccentric as one might assume, given that a similar mode of reasoning had led Belon assign the Latin term buteo to the saker (Glardon 1997, 109). Nonetheless, if de Thou’s argument did not take hold, it does not prevent his diagnosis of the gyr from being both an informative and accomplished piece, which is worth quoting here in full (de Smet 2013, 260–262, with a new English translation):

Est et magnanima Falconum e gente Triorches
Seu Buteo: optimus hic et formosissimus ales
Accipitrum in genere, atque animis, et robore præstat.
Cum vero Autumni veteres sub tempore primum
Exuvias posuit, tum corpore pulcior omni
Tollit ovans caput, atque erecta fronte superbit
Torva tuens, patulisque exspirat naribus ignem.
Cæruleus rostro color est, atque ungibus æque;
Et notulis passim pectus distinguitur atris.
Ille ad Hyperboreum prædas agit improbus axem,
Sauromatumque ultra fineis, extremaque Thules
Litora; fecundos hominum volucrumque receptus,
Vaginamque olim mundi; districtus in omnem
Europen unde, et Libyen, Asianque potentem
 Fatalis mucro populosas civibus urbes
Hausit, et ipsum adeo stravit tot cædibus orbem.
Hinc dum ad nos nivium, et cali pertæsus iniqui
Tendit, oloriferumque Albim, celeremque Visurgim,
Danubiumque supervolitat, Rhenumque bicornem,
Excipitur laqueis, magnoque heic captus habetur
In pretio. Hunc Reges mensa dignantur amica,

Fig. 2. Woodcut illustration of the gyr in Pierre Belon’s Histoire de la nature des oiseaux (1555) (Bibliotheca Falconaria K.-H. Gersmann).
Et tractare manu gaudent, et voce canora
Indocileis mulcere animos invictaque corda:
Ast illi tacitam pertentant gaudia mentem
Interea: ponunt furiales pectoris æstus,
Et cedit feritas patienti victa labore.
Nil non audēbit, nil non tentabit, ubi auras
Captare ætherias domino emittente licebit;
Aspice, non, quo more aliī, stridentibus alis
Subvehitur, crebrosoque alternat in ære gyros:
Sed recto incedens graditur per inane volatu
Arduus, et magni conscendit sidera calē;
Ut vero nubes inter caput extulit altas,
Præcipiti raptus lapsu ruit, et furit ardēns,
Subiectamque oculis prædam deturbat aëre alto:
Illa sed horrificum penna trepidante latronem
Expulsu alarum agnoscent, fugit ocyus Euro,
Obliquatque latus, non ausa obvertere rostrum,
Aut contra certare, aut cursum inhibere fugacem.

To the noble family of Falcons belongs also the Triorches or Buteo ['Gyrfalcon']; she is the finest, handsomest bird among the raptors, and stands out by her character and strength. However, when she has first shed her old plumage around the autumn, her entire body appears more beautiful; (595) she raises her head triumphantly, showing off her elongated forehead and piercing gaze, whilst breathing fire from her broad nostrils. Her beak is tinged with blue, and so are her talons, whilst her breast is sprinkled with small black marks. Wickedly, she chases her prey near the North Pole, (600) beyond the land of the Poles and the farthest coast of Thule and that fertile retreat of men and birds – the sheath of the world [Scandinavia], from where a fatal sword was drawn against Europe, Libya and the powers of Asia, draining populous cities of their residents (605) and overthrowing the world itself in carnage. When she tires of the region’s snow and its unfriendly sky, she heads towards us: as she flies across the swan-proud Elbe, the fast-flowing Weser, the Danube and the double-horned Rhine, she is snared; once caught, she is valued highly here: (610) Kings invite her at their table, they take pleasure in stroking her and soften her hardy spirit and indomitable heart with soothing words. But in the meantime, the pleasant treatment cajoles her gruff disposition into abandoning her furious agitation: (615) [thus] even wildness is overcome by patient effort and yields to it. There is nothing she will not dare, nothing she will not attempt, when her master casts her off and allows her to take to the air; see, unlike the others, she does not climb with a flap of her wings, or draws continuous circles in the air; (620) but she flies straight up through the air, until she soars, rising to the heavenly stars above. Yet when her head has pierced the bank of clouds, she stoops into a precipitous rush; burning with fury, she startles the prey that she has sighted from above. (625) But the prey recognizes the terrifying feathered robber from the thrust of her wings and bolts faster than the wind; afraid to face the raptor’s beak, the animal presents her with its flank, either in order to fight back, or to run away at full speed.
During the Renaissance, the origins and breeding grounds of migrating or exotic birds of prey often remained mysterious – as de Thou attests on several occasions (De Smet 2013, 242–243; 258–259; 264–265; 372–373). Our historical sources, therefore, are rife with approximation and guesswork. Errors in the identification of a species and a lax use of ornithological nomenclature only confound matters more. It is true that birds of prey may occupy or return to the same territory for centuries; in the case of *Falco rusticolus*, the radiocarbon dating of guano and feathers found in nesting sites in Greenland, where deterioration is slow, has suggested that some gyrfalcon nests were 6,000 to 6,500 years old whilst others had been used for hundreds of years (Burnham et al. 2009). But however tempting it is to imagine that a number of modern gyrs may have had eyries on the same ledges as their Renaissance forebears, ornithologists rightly warn against drawing inferences about historic bird populations from the current habitat and migration patterns of a species.

For French and indeed Italian authors of the 16th century, the gyr was emphatically an extraneous raptor: ‘she does not roam over Italy or France at all’ (‘il ne hante point ne Italie, ne France’), stated Belon (Glardon 1997, 94) and after him Bouchet (1585, 118’). The principal falconry and ornithological treatises held that the gyr only bred in cold climates. These are mostly – but not exclusively – identified with the European North, ranging from ‘the cold regions, as well as in Dacia, Norway and Prussia towards Russia’ (Tardif 1492, n.p.), ‘the most Northern part of Germany called Norway’ (Belisario 1578, 92) or ‘the parts of Prussia and Denmark towards Lübeck’ (Franchières 1585, 3’), to an unspecified ‘part of Russia’ (Glardon 1997, 94; Bouchet 1585, 118’). They also declared, quite consistently, that the gyr was commonly trapped as a passage in Germany (Tardif 1585, 59; Franchières 1585, 3’), mostly in the North (Low Germany), but also toward the South (High Germany; cf. Glardon 1997, 95; Bouchet 1585, 108’). De Thou imagined the gyr’s natural habitat in the arctic and sub-arctic regions (‘near the North pole, beyond the land of the Poles and the farthest coast of Thule and that fertile retreat of men and birds ... [Scandinavia]’), but likewise notes that she is snared when she winters in the (mostly German) river basins of the Elbe, Weser, Danube and Rhine (see the passage quoted above). Gessner and Aldrovandi similarly situate the gyr’s breeding grounds in the North; however, on the basis of Belisario’s *De aucupio* of 1519, both add that the Holy Roman Emperor (i.e. Maximilian I, r. 1486–1519) obtained his gyrs through merchants travelling to a cold and rough island named Hirlandia. Gessner mistakenly identified the island as ‘a part of England’, i.e. Ireland, but Belisario (1578, 92–93) undoubtedly meant Iceland, the island between Norway (Noroegia) and Greenland (Gallandia) which Frederick II had singled out as the homeland of the best gyrs in his *De arte venandi cum avibus* (Paulus/Van den Abeele 2000, 182; Frederick II 1596, 152). Still according to Belisario, the Icelandic gyrs were whiter and larger than the Norwegians, of which his contemporaries nonetheless thought more highly (1578, 93). Other texts, such as Francesco Sforzino da Carcano’s *Tre libri de gli uccelli da rapina* (1568, 3, 26), note the different morphs of the gyr’s plumage – ‘biondi, rossi, bruni et bianchi’ (‘fair, russet, brown and white’) – without linking these varieties to specific regions of origin. D’Arcussia, lastly, speaks of gyrs being trapped as passagers in Norway, and as eyasses (nestlings) in the vicinity of ‘Creman’ – that is, the Kerman region in Persia (current-day Iran) – as well as in Armenia. He specifies, however, that birds imported from the latter regions tend to be smaller and, in the case of Armenia, of lesser quality (D’Arcussia 1598, 82). D’Arcussia’s mention of Kerman and Armenia may be based on his knowledge of the actual trade in falcons or on travel reports, or a combination of both. The smaller size and infer-

7 The mention of Russia is omitted from later editions (e.g. Tardif 1585, 59’). The reference to ‘Dacie’, i.e. the Balkan, is problematic. It appears to go back to a medieval French translation of Moamin (quoted by Van den Abeele 1994, 60n). There is probably confusion with ‘Danimarca’ (Denmark), which is how Franchières interprets it.
ior quality may be explained by confusion of the gyr with another species, or by naturally occurring hybridisation – a phenomenon of which d’Arcussia was well aware.8

Travelogues, at any rate, can be particularly equivocal. In the late 13th century, Marco Polo famously reported that Kublai Khan drew as many gyrfalcons as he wanted from islands (in the Pacific), a forty days’ march east to the plain of ‘Bangu’ (or ‘Bargu’); from there the birds were allegedly also exported to the Levant. To this day, Polo’s account remains a matter of debate. For PotaPov/Sale (2005, 208–209), Polo’s description of Kublai Khan’s hunting practices appears strongly influenced by Emperor Frederick II of Hohenstaufen’s treatise. Others have related Polo’s account to the documented practice in the region of gyrs being exacted as tribute (Allsen 2006, 247–248) or see in it an amalgam of personal observation and textual knowledge (Vogel 2013). What we must retain, is that from the late 15th century onwards, Polo’s travel account with, amongst other things, its description of the Great Khan’s hawking expeditions with eagles, gyrs and other birds of prey (Polo 1556, 55–57v) circulated widely in print, not just in Italian (eight editions between 1496 and 1597), but also in German (1477), Latin (1483), Portuguese (1502), Spanish (seven editions from 1503 onwards), French (1556), and English (1579). It thus provided a longlasting and exceptional testimony of gyrs in these far-flung regions, which Renaissance ornithologists accepted as credible (Gessner 1555, 66; Aldrovandi 1599, 475).

Some authors claimed that the gyr nested in the Mediterranean or migrated there. In the middle of the 15th century, for example, the French herald and traveller Gilles Le Bouvier (Hamy 1908, 65) remarked that ‘gyrfalcons’ (gerfaulx) were captured on the Mediterranean island of Candia (Crete). In all likelihood, however, Le Bouvier confounded the birds (which he claimed were ‘greater than falcons’) with the saker (Falco cherrug), which was routinely trapped in these parts and is in fact often mistaken for a gyr (PotaPov/Sale 2005, 79). André Thevet (1516–1590) commits a similar error in his description of Crete in his Cosmographie universelle of 1575. There Thevet declares that Italian nobles import their ‘sakers, hawks, falcons, gyrfalcons, tiercels and lanners’ from the Cretan mountains, where the birds seize lambs and kid goats to feed themselves or their young; at the same time, however, Thevet (1575, I, 218v) freely admits his own lack of competence in the realm of falconry. Indeed, from his own travels to the Levant, Pierre Belon (1554, 13v) had long issued a warning that unlike French falconers (‘nos Faulconniers’), the Cretans did not differentiate between the various species of bird of prey, to which they referred by the general (Italian) term of falconi, or hierax in Greek.

Even when Olaus Magnus’s detailed map of Scandinavia and his subsequent Historia de gentibus septentrionalibus (History of the Nordic peoples) began to unlock the shadowy regions of the North, any allusion to the gyr cannot be taken at face value. Olaus’s 1539 Carta Marina evidently drew attention to the diverse avian fauna of the North. Nevertheless, the large bird of prey clutching a hare, depicted on the map to the North of the White Sea, was not labelled a gyr, but ‘a huge eagle [that] wraps her eggs in the flayed skin of a hare; by means of its life-giving warmth the chicks are hatched’ (Magnus 1539, sheet C, letter E), with a firm nod to Aristotle’s description of a bird in Scythia ‘that is a large as a great bustard’ in his History of Animals (9, 1, 33). Magnus’s History, first published in Rome in 1554/1555 but often reprinted and soon translated into Dutch, French, Italian and German, similarly describes a broad range of indigenous and migrating bird species in Book XIX. For his classification of raptors, however, Olaus is highly dependent on Albertus Magnus, as well as on the apocryphal Letter of Aquila Symmachus and Theodotion to Ptolemy, so that he offers little that is new. Olaus thus first mentions the gyr (‘herodius qui et girfalcus dicitur’) as a subspecies of the eagle (1555, 651). Puzzlingly, he later briefly returns to the gyr in his taxonomy of the falcones

8 Instances of likely confusion of the gyr with the saker (which also belongs to the group of ‘desert falcons’) follow below. On the hybridisation of gyrs, and their relation to the Altai falcons, a possible hybrid species derived from sakers and gyrs, but in any case belonging to the Falco bierfalko superspecies, see PotaPov/Sale 2005, 24–28.
For our present purposes, it is worth quoting Olaus Magnus’s first description of the gyr in the French version of 1561 (212r–213r), which omits Olaus’s explicit reference to Albertus Magnus as his source (‘Alberto teste’) but embellishes the History’s original Latin version in terms of the gyr’s prowess, no doubt in order to please an aristocratic French readership:

The first [type of eagle] is the gyr, a most noble bird in the whole range of birds of prey; her colour is sky-blue, leaning towards white, but for the wings and stomach, which tend to be more bluish than other parts. She is so strong as to combat the eagle, and so courageous and forceful, that when she is released on half a dozen cranes or other birds, she will never leave or abandon the hunt until she has brought them all down to the ground, one after the other, where they are finished off by a specially trained dog. And should by some mishap one of the cranes escape, then the falconers lure and call her back in vain, until she has found the prey that escaped her. The gyr only produces a single young.

In the course of the 16th century, some new information did trickle through. The Tractatus de duabus Sarmatiis Asiana et Europiana (‘Account of the two Sarmatias, Asian and European’) by Matthias Miechowita (Maciej z Miechowa, 1457–1523), for instance, yielded a glimpse of the import of Russian gyr’s into early 16th-century Poland. Nonetheless, having first dispelled the myth of griffins and other gold-digging birds in the Ural region and the (Russian) North (‘in Iurha et locis Septentrionis’), even Miechowita’s report soon slips into the realm of fiction:

A certain bird of prey, however, is brought to us [from there]: she is of the size of an eagle, but her wings and tail are wider than the eagle’s, more like a hawk’s. The Muscovites call her ‘kizecoth’, but we [Poles] name her ‘byalozor’ [białozór, i.e. gyrfalcon], after her dazzling whiteness, because she presents a whitish colour on her stomach. All the [other] raptors, hawks, falcons and others that live by catching prey, fear her so much that they tremble at her sight, fall, and perish.

9 Potapov/Sale (2005, 80) are correct that there is no mention of a gyr on Olaus’s map, but do not discuss the references to the gyr in the Historia. For Bø (1962, 20), Olaus’s descriptions of Nordic birds of prey ‘are neither particularly original nor reliable, on both historical and contemporary conditions’; cf. Mehl et al. in this book.

10 This is a reference to the Polish word biały, ‘light-coloured’, ‘white’; cf. Udolph ‘Eastern Slavic’ in this book.
Three decades later, the Imperial diplomat Sigmund von Herberstein (1486–1566) was aware of Miechowita’s account when he shared his own observations of Russian gyrfalcons or ‘kretzet’ (kreczet) in his Rerum Moscovitarum Commentarii (‘Notes on Moscow’), a highly popular text that was also translated into Italian and German. Herberstein not only refers to the court’s use of gyrfalcons in the hunt for ‘swans, crane, and other birds of that ilk’; he also provides an early, foreign testimony to the transport of newly caught gyrs from their nesting grounds to Moscow, four, five or six at a time, by specially designed sleighs (‘in quodam vehiculo ad hoc preparato’; cf. HERBERSTEIN 1549, 35v–36v). Both Miechowita’s and Herberstein’s testimonies were carefully culled and analysed, alongside Giovio’s reference to gyrfalcons in his De legatione, by GESSNER (1555, 66–67) and ALDROVANDI (1599, 471, 474–475). The medical doctor and humanist Julius Caesar Scaliger (1481–1558), an Italian expatriate living in France, likewise drew on Miechowita and Herberstein – though not quite accurately – in his famous refutation of Girolamo Cardano’s De Subtilitate, in this particular case on the question of whether the eagle was in effect the largest of all birds (1557, 303r–304r = Exercitatio CCXXXI, here 303v–304v, ‘Bialozor, Krezet, Falcones albi’). We shall return to Scaliger’s text later.

It is a pity, however, that most continental men of letters did not read English, for the inquisitive minds of a de Thou or an Aldrovandi would surely have appreciated George Turberville’s reference to the gyrs and other raptors he saw on his visit to Moscow in 1568. A rare gem, but without much influence, the passage is inserted in his Booke of Faulconrie of 1575, which is for the most part a compilation from French and Italian hunting treatises:

At my beyng in Moscovia, I sawe sundrie Gerfalcons, verie fayre and huge hawkes, and of all other kyndes of hawkes, that onely byrde is there had in accompte and regarde, and is of greater price than any other. The reason whereof I learned of certayne Englishe Merchautes my countrye menne, who tolde me, that the Empyours Maiestie Ivan Vazilniche [i.e. Ivan the Terrible], did use to flee the Raven with a cast of Gerfalcons, and take no slender pleasure and delight therein. (TURBERVILLE 1575, 43)

Turberville continues with the English merchants’ account of the Tsar’s ‘monstrous strong’ (i.e. spectacular and impressive) flight at the agile raven: on one occasion, when the prey sought to escape the gyrs’ attack by hiding in a fir tree, the Tsar simply ordered his party to hack down the tree. Thus forced to take flight again, the raven was soon engaged in a new, fatal battle with the mighty gyrs. ‘I imagine the flight to be very strong,’ comments TURBERVILLE (1575, 43), ‘and truly the pastime and pleasure cannot be small, but a game fit for such a mighty Prince as his Maiestie is.’ In France, flying at ravens (with falcons) was not practised until the reign of Louis XIII; it may have been a chance development (rather than one modelled on reports from abroad) and probably did not involve gyrs.12

Finally, it should be mentioned that in addition to the discovery of the European North and East, the New World also potentially opened new vistas of falconry. ‘La Nouvelle France’ was certainly said to abound in suitable hunting birds (including the gyr):

Si on desire la vollerie, il se trouvera dans ses lieux de toutes sortes d’oiseau de proye, et autant qu’on en peut desirer: les faucons, gerfaits, sacres, tiercelets, esperviers, aoutours, esmerillons, mouschets, de deux sortes d’aigles, hiboux petits et grands, ducs grands outre l’ordinaire, pies griesches, piverts, et autres sortes d’oyseaux de proye, [...]. (CHAMPLAIN 1632, 4 – emphasis mine)

12 This statement is based on Charles d’Arcussia’s La Fauconnerie du Roi (‘The Royal Mews’), first published in 1626 but referring back to 1615. I refer here to John Loft’s English translation based on the 1643 edition (LOFT 2003, 287).
If one fancies hawking, there are in this region all kinds of birds of prey, and in as great a quantity as one would want: falcons, gyrs, sakers, tiercels, sparrowhawks, goshawks, merlins, muskets [i.e. male sparrowhawks], both types of eagle, large and small owls, eagle-owls that are bigger than normal, shrikes, woodpeckers, and other types of birds of prey (sic).

From the Arctic North to the Courts of Europe

Various studies have investigated the export of raptors from the North (including, but not limited to, gyrs), both as a commercial venture and as diplomatic gifts, which often resulted in a monetary reward for the bearer or a counter-gift in kind. The collation of archival sources such as the so-called ‘falconry letters’ (Falkenbriefe) and the records of the Duke of Prussia’s annual distribution of falcons to the courts of Europe, as well as the gradual unlocking of the gyrfalcon trade in the East now afford us a much better understanding of this commerce than any individual in Renaissance France or Italy would have had.

In the 16th century, besides the cadges of Nordic falcons (sometimes including a gyr) sent from Prussia to the French King and one or two of the most prominent noblemen, such as the connétable Anne de Montmorency, gyrs were often supplied to France and even Italy via the Low Countries. In 1532, for instance, François I received a gyr and a gyrkin from Mary of Hungary, the regent of the Spanish Netherlands, whilst in 1606 Henri IV thanked Archduke Albert for his kind gift of ‘two gyrs, a tiercel, and three falcons’. In return, the French King would offer hunting dogs and above all Moscow to purchase falcons and gyrs of good quality (De Smet 2013, 85–93). In the late 17th and 18th centuries, however, the French court dealt more directly with the King of Denmark, offering (in 1753) four thousand bottles of Champagne and Burgundy wine as compensation (Charliat 1929, 123–124).

As d’Arcussia’s account suggests, some gyrfalcons may also have entered France via Mediterranean ports. In the Ottoman Empire, Süleiman the Magnificent (r. 1520–1566) certainly sent emissaries to Moscow to purchase falcons and gyrs of good quality (Veinstein 1994, 718; 721). Any gyrs he sent as diplomatic presents to France would thus have been subject to a long and circuitous route towards the mews of the French King or of connétable Anne de Montmorency (De Smet 2013, 92). It is not yet known what, if any, the impact was for the European West of the Russian Tsar’s clampdown on his monopoly on gyrfalcons in the second quarter of the 17th century.

In mid 16th-century France, a gyr cost, according to Pierre Belon, at least 20 and more commonly 25 écus (Glardon 1997, 96). Based on Francesco Sforzino da Carcano’s Tre Libri de gli uccelli da rapina of 1568, Aldrovandi stated that in Italy a gyrfalcon would fetch 50 scudi, even if she had not yet been mated, whilst a male of the species would cost 20 (Aldrovandi 1599, 477). The Bolognese ornithologist was, however, sceptical about Carcano’s claim that merchants brought gyrfalcons to Italy from the Orient (i.e. from Cyprus, Crete, or Alexandria in Egypt), ‘given that others deny that they originate from anywhere else but the very North’. But he did concur that the French were the greatest consumers of gyrfalcons, which they were willing to buy ‘at any price’ for use in the hunt (ibid.).

13 For broad surveys, see Ford 1999 (111–118) and Potapov/Sale 2005 (209–212). For studies with a particular historical/geographical focus and further ref., see Knabe 1962; 1967; and Heckmann 1999 (on the Duke of Prussia’s annual gift of falcons to the princes of Europe), Paravicini 2003 (564–572, on falcons as a special case in a broader Medieval trade of animals from the North), Charliat 1929 (on the commerce between Denmark and France in the 17th and 18th c.), Bø 1962 (on falcon-trapping in Norway, especially from the mid-16th to the mid-18th c.) and Ortzen Lie and Mehler et al. in this book. For the trade with the Low Countries, see FukS/van der Windt 2005, 143–145 (revised from FukS/ParPoi 1994), and De Smet 2013, 90. For the gyrfalcon trade in the Far East and Russia, see the excellent survey in Allsen 2006, 248–252, and the specialist articles cited in fn. 11.
These high prices are not only confirmed by documentary evidence but also proved remarkably stable. In September 1521 the white gyr that belonged to Federico II Gonzaga, Duke of Mantua, was reported to have come out of her annual moult more white and more beautiful than before: with her splendid new plumage, Gonzaga’s master of the hunt, Francesco Leali, estimated the gyr’s worth at 200 ducats (MALACARNE 2003, 52)! But this was no doubt an exaggeration, due to sheer enthusiasm, for in that same year one of Federico’s falconers, Annibale Sala, purchased a gyr from ‘German’ merchants (‘li todeschi’, but perhaps referring to Dutch traders) for 20 ducats. This bird, however, was ‘quite beautiful, sore in plumage, more russet than anything else’ (‘asai bello, soro de piumazo, piu presto rosso che altro’) and therefore less desirable than a white specimen (MALACARNE 2003, 52). In France, François (r. 1515–1547) I is known to have paid 50 écus for two haggard gyrs and one sore. On 2 January 1595 Henri IV’s Conseil des finances similarly approved a payment of 50 écus for 3 gyrs to be housed in the royal mews (VALOIS 1886–1893, I, 122, no. 1911). The same price, however, was paid for a single white gyr falcon in December 1600 (PARPOIL 1994, 128). On 31 December 1605, Henri IV paid 75 lires each for two fully trained gyrkins (‘1 tiercelet de gerfaut vollant’, twice), which he bought from two different suppliers, one a Flemish merchant, the other, one of his own falconers Antoine Du Buisson (who had probably returned from a buying expedition; cf. REILLE/QUIQUERAN BEAUEU 1989, 102; PARPOIL 1994, 128). Considering that one écu was worth three lires, the male gyr cost half of what the (presumably) female gyr cost in 1595, whilst the white gyr cost three times as much, reflecting her greater rarity and appeal over other forms (silver or brown). By comparison, in the same two transactions of 1605, the French king paid 45 lires each for 13 other manned falcons, 30 lires for a tiercel and 45 lires for a ‘horn-owl’ (‘duc’), whose use in the hunt we shall consider below (REILLE/QUIQUERAN BEAUEU 1989, 102). Equivalent prices have been recorded for Louis XIII I’s purchases in 1612: 75 lires apiece for 12 (!) haggard gyrs and 150 lires each for two white gyrs (PARPOIL 1994, 128).

These captive birds formed the primary basis for early scientific observation, and in the case of a gyr, such access could be quite privileged. Thus even an experienced, noble falconer such as Francesco Sforzino da Carcano concedes that some of his knowledge is based on hearsay:

mi è stato detto, che se ne trovan anco de’ bianchi schietti, begli a l’occhi piu de gl’altri, ma io non ne ho mai veduto[,] (CARCANO 1568, 25)

I have been told that there are also gyrs that are completely white, more beautiful to behold than all the others, but I personally have never seen one.

---

14 The claim of a gyr’s increased beauty after the moult is common in falconry treatises. De Thou also refers to it (see the passage quoted above). The testimony quoted by Giancarlo MALACARNE (2003, 52, but also 89–90: ‘è mudato fiorito’) from documents in the Mantuan Archivio di Stato seems to support this common acceptation ex vivo. However, a successful moult may well have been due in large part to the great care given to these precious birds, which had previously been subject to the stress of being caught and being transported over long distances – as indeed Frederick II had recognized (PAULUS/VAN DEN ABELE, 2000, 333–334).

15 The price for a rare white gyr appears similar to that of a good, strong horse for general military use, which during Henri IV’s reign, cost around 137,50 lires (or c. 45 écus), although a top quality horse for the royal stables could easily fetch 300 écus or more. These estimates are based on VALOIS 1886–1893, I, 155–156, no. 2372; 156, no. 2373; 210, no. 3147; 278, no. 4223; II, 716, 1497.

16 The transcription of the receipt of payment obtained by Adrien Grosle (‘exhibit 44bis’) reads ‘duo’, which in the context is an obvious error for ‘duc’. COLTGRAVE (1611, art. ‘duc’) gives the translations ‘great (rough-leg’d) d owle’, ‘horne-coot’ or ‘horne-owl’. It most likely concerns the European eagle-owl (Bubo bubo, French ‘grand duc’).
Aldrovandi, for his part, referred explicitly to the Norwegian gyr that had belonged to Alfonso II d’Este, Duke of Ferrara (1533–1597) and served as the model for both the woodcut illustration in his *Ornithologia* (Aldrovandi 1599, 472–473; 475) as well as the beautiful watercolour that survives in one of his albums (Fig. 3). Further afield, three comparable artistic studies of gyrfalcons featured in the zoological albums owned by Emperor Rudolf II (1552–1612) at Prague: two of the drawings, both of a gyr on a falconer’s fist – one hooded, the other not –, have now been attributed to the Italian painter Giuseppe Arcimboldo (1526–1593), a correspondent of Aldrovandi’s (Fig. 4). Art historians link these watercolours and gouaches to two 16th-century oil paintings of a similar ilk, viz. that of the gyr that belonged to Archduke Ferdinand II (1529–1595; cf. Vienna, Kunsthistorisches Museum, Gemäldegalerie, inv. 8293) and the privately owned *Portrait of a Gyrfalcon*, viewed from three sides, by an unidentified Lombard Master (c. 1540–1560; cf. Fig. 5). Finally, it is worth quoting Julius Scaliger’s report on the gyr owned by Charles III, Duke of Savoy (1486–1553):

---

17 For the attribution to Arcimboldo, see Kaufmann 2009, 132, calling attention to Arcimboldo’s circular mark. Vienna, ÖNB, Cod. min. 130, fol. 8r and fol. 9r. For the attribution of the former to Arcimboldo, see Olmi/Tongiorni Tomasi 2011, 128. The name ‘gyrfalcon’ (gerfaut) listed amongst alternative bird names on a 16th-c. ornithological drawing by Isaac La Grèse in collaboration with Benoît Textor and Thomas Huillier (New York Historical Society, inv. 1889.10.3.1) is a misnomer: the bird depicted is probably an osprey ( Olson/Mazzitelli 2007, 498).

18 See Olmi/Tongiorni Tomasi 2011, 128 and the respective reproductions of the paintings on 130 (cat. 140) and 131 (cat. 147) (cat. listing: Fernino-Pagden 2011, 369–370). The *Portrait of a Gyrfalcon, viewed from three sides*, formerly owned by Adamo Boari (1863–1928), and since then remaining in private hands, was sold at auction by Sotheby’s New York on 30 January 2014.
Unum tantum vidimus Gryfalconem Caroli, ducis Sabaudiani, de cuius pugna ullam capi- 

tamus voluptatem. Omne volantum genus sine ullo negotio deiiciebat. Nec, visa præda, rota-


tionibus aereum superabat: sed recta aecupis manu ad avem: quæ non, ut adversus Falconem, 


tut Sacrum se se comparabat ad defensionem: sed sola fuga saluti consulebat. Is ille Gryfalco 


a Falcone, quem peregrinum vocant, nihilo nisi magnitudine differebat. (Scaliger 1557, 304+) 

I have only seen the gyr of Charles, Duke of Savoy. Her manner of hunting gave me no plea-


ture: she brought down all kinds of fowl without any effort whatsoever. Nor did she, once she 


had sighted her prey, circle up into the air, but [she flew] straight from the falconer’s fist to-


wards the other bird. The latter did not prepare to defend itself, as it would against an ordinary 


falcon or a saker, but thought only of escaping. This particular gyr did not look very different 


from the so-called peregrine falcon, except for its size.

Scaliger’s testimony is remarkable for the criticism he voices of the gyr’s actual performance in the 


hunt, where she apparently gave no sport. Most of his Italian and French contemporaries, particu-


larly those at princely courts, would thoroughly disagree, and it is to their hunting practices that we 


must now turn.

**THE GYR IN THE HUNT: FROM FACT TO FICTION**

In the medieval tradition, which still reverberated in the 16th century, falconers treated the gyr (and 


indeed the merlin) as an oiseau de poing or ‘hawk of the fist’, just like the goshawk and sparrowhawk,
no doubt because of her tendency to fly straight at her prey from the fist (Ferrières 1560, 64; Glardon 1997, 107). But in practice, she was associated with the **haute volerie** (‘high flight’) and seems to have been treated increasingly as an **oiseau de leurre** (‘hawk of the lure’).

The gyr demanded a lot of attention: she was said to eat three times as much as a saker (the gyrkin twice as much) and could not be left as hungry as other hunting birds. An able falconer would also take into account that the gyr’s origins in cold climes not only explained her physical appearance and innate qualities such as her boldness and speed (Paulus/van den Abeele 2000, 182; Frederick II 1596, 152), but also influenced her behaviour and health: she would throw a temper in hot weather, whilst her natural, humoral balance was either deemed excessive, causing sluggishness, or cold and dry, leaving the gyr prone to craye (constipation; cf. Belisario 1578, 93–94; d’Arcussia 1598, 83–84, 118). It is worth noting that opinions varied widely: according to the northern Italian Eugenio Raimondi (1593–c. 1668), gyrs were actually ‘hot in nature’ (‘sono di natura caldi’), should be purged with tow rather than cotton, in the manner of sakers and lanners, and just like these species **should** be kept hungry. Raimondi, however, also declared he was not an expert when it came to gyrs (1626, 100).

Le Miroir de Fauconnerie by Pierre Harmont, known as Mercure, provides a useful outline of her training and optimal quarries. Like d’Arcussia, the author of this hawking treatise was a practising falconer (in the service of Henri IV), and his text, whilst reflecting some well-established practices, is relatively independent from the increasingly cross-contaminated, late medieval traditions.

Premierement il le faut poivrer, l’assurer, & faire la teste avec un vieux chapperon, le leurrer comme le Faucon, & luy faire tuer une poulle seulement de peur de le trop eschauffer: gardez vous bien en le dressant qu’il aye une frayeur & qu’il ne se soubz le poing & ne fasse le tour: il est fort aisé quand il est manié comme il faut, mais s’il est rudozy, il est bien difficile de le remettre: sa volerie est pour Milan, pour Buze & pour Heron: il est excellent & courageux en ses entreprises, & de longue haleine.

Pour le Tiercelet il est encore plus chatouilleux que le Gerfault & plus delicat: vous le pouvez faire voler pour Milan, pour Heron, pour la perdrix, pour le Chahuant, pour Courlis & pour Corneille. (Harmont 1634, 16)

First one needs to sprinkle her with pepper [to rid her of parasites], reassure her, and make her to the hood with the aid of an old hood. She must be trained with a lure like a falcon, and made to kill just one chicken so she does not become too hot. Whilst training her, be very careful that she does not take fright and throw herself under the fist, wrapping herself around it. She is very agreeable if she is handled correctly, but if she is treated roughly, it is very hard to get her back into shape. She flies at the kite, at the buzzard, and at the heron. She is outstanding and courageous in these undertakings, and has good stamina.

Insofar as the gyrkin is concerned, he is even more sensitive and delicate than the gyr: you can fly him at the kite, the heron, the partridge, the great owl, the curlew and the crow.

Interestingly, a number of the gyr’s traits listed by Harmont are very similar to those experienced by modern falconers: British falconer Emma Ford (1999, 125–126) describes the gyr’s susceptibility to distress, her reluctance to be hooded and the fact that she is easily bored. Harmont’s list of suitable flights, on the other hand, indicates that gyrs were used to hunt a larger variety of prey than they are often associated with, viz. the crane, heron and kite (e.g. Ford 1999, 128).19

19 The custom of flying a gyr at fur, as described by Frederick II (Paulus/van den Abeele 2000, 335–336) and practised by early 20th-c. falconers in Iran (Boyer/Planio 1948, 124), appears not to have been very popular in the European Renaissance.
The flights varied, at any rate, according to the local fauna, the landscape, and the falconer’s means. In Provence, far from the wealth and infrastructure of the royal mews and where herons were less common, d’Arcussia successfully trained his gyrs to fly at partridge (which is similar to the gyr’s natural prey in the North, the ptarmigan). To get around the gyr’s tendency to bathe on the fist, he taught his gyrs to follow from tree to tree, and in their pursuit of the prey, they perched on thickets, as goshawks do (D’Arcussia 1598, 83; Loft 2003, 47, 270, 447). On the other hand, insofar as we can believe the poetic testimony of Etienne Jodelle’s (1532–1573) lengthy (and unfinished) Ode de la chasse (‘Ode on the hunt’), the court of Charles IX delighted the gyr’s sudden and direct attack, even in the flight at the partridge:

Qui plus est, un Sacre, un Gerfaut,
Se dresse à ceste mesme proye,
Qu’auparavant jetter ne faut
Que partir leur proye on ne voye:
Tous ces oiseaux ne bloqueut pas
Lors que les perdrix ils remettent:
Mais tous, quand ils sont bons, les mettent
Au pied, fondans soudain en bas. (Jodelle 1585, 279°)

Moreover, a saker or a gyr may be trained to fly at that same type of prey [partridge] and must not be cast off until the prey is visibly put on the wing. These raptors do not hover when they have flown the partridges to the mark; but (if they are any good) they all clutch them in their talons, as they abruptly stoop.

French and Italian falconers were, on the other hand, reluctant to use the gyr for the vol pour rivière (‘flying to the river’; cf. Raimondi 1626, 100). Albertus Magnus certainly maintained that the gyr was better deployed in the open field than near, or over, water: if flying to the brook, she might hurt herself or drown, allow the waterfowl to escape, or frighten birds away (Smets 2010, 539). Other nations did not necessarily share this reserve, witness the two gyrfalcons that were trained precisely to hunt waterfowl and sent to Henri IV by Landgrave Maurice of Hesse-Kassel. At the time, however, the King was laying siege to Rouen (December 1591–May 1592); since there was no river near enough to the camp, he had the birds retrained to fly the heron. ‘To be honest’, comments Pierre Harmont, who was put in charge of the gyrs, ‘they flew very well to the river, but they were not quite as pleasing as falcons’ (Harmont 1634, 16).

There is no doubt, however, that flying at large prey such as a heron or kite yielded much more excitement for the court. In his Ode de la Chasse, Jodelle gives a detailed description of the flight at the kite (1583, 280°–281°), which François I had brought back from Italy (De Smets 2013, 15) – this particular hunt was still popular in both Italy and France in the first quarter of the 17th century (Loft 2003, 283–284, 295–296; Raimondi 1626, 99–100; cf. Fig. 6). In Jodelle’s poem, the sighting of the kite is met with loud cries, and an owl, brought to the field on purpose, is launched first to make the kite lower its flight (so that the hunting party enjoy a good view of the battle that is about to take place, but no doubt also to ensure a viable slip for the falconer).20 Then specially trained sakers are sent to rough the prey. Last of all, it is the turn of the gyr, whose distinctive mode of hunting (descriptions

20 In his poetic description of the ‘Vol pour Milan’, featuring an owl, two gyrkins and a saker, Claude Gauchet specifies that the owl is furnished with a foxtail instead of jesses, for the dual purpose of attracting the kite’s attention and keeping the owl low (Jullien 1879, II, 65–66). On Gauchet, see below. Pierre Belon similarly refers to such a foxtail in his comments on the deployment of a ‘grand duc’ in the flight at the kite (Glardon 1997, 136).
Quand ceste meslee au ciel faite
Se perd quasi de l’œil, qu’on jette
Apres tous autres le Gerfaut.
L’un brave et fort, depuis le bas
Iusqu’au plus haut de pareille aile,
Ne de façon ne monte pas
Que les Sacres; mais en eschelle
Roide et soudain se vient hausser
Droit au Milan, qui par la force
D’une seule venué, il force
Du haut de trois clochers baisser:
Puis hausser, et faire on luy voit

21 The author of an Italian hunting treatise, Eugenio RAIMONDI (1626, 100) uses a similar expression in Italian to describe the flight of gyrfalcons: ‘questi montano a scala’. ARTHÉLOUCHE DE ALAGONA’s mid 15th-c. treatise (1585, 89r) likewise declares that the gyr ‘monte par pointes’.

22 French falconers used the notion of clochers or ‘bell towers’ to estimate the height at which a raptor or its prey was situated in the air (see JULLIEN 1879, 70).
When this aerial melee risks going out of sight, after all the others, the gyr is cast off. Alone, strong and courageous, she lifts off into the sky with a winging and manner that is quite unlike the sakers'. Instead, she rises as if mounting a ladder, resolutely and suddenly - straight at the kite. With the force of her one attack, she makes the kite descend as much as the height of three bell towers, then climb up again. One sees [the kite] make several escapes, but wherever she goes, she receives a new attack, so that in the end her fall often happens quite far away. But before [the battle] begins, as soon as the prey is sighted, four or five beaters (piqueurs) are always sent down wind. As soon as the kite is down, her leg is torn off and the [birds] instantly get their reward. Everyone rushes towards [the scene], hoping to arrive first in order to acquire the kite's tail, which is the prize of such a run and is shown off afterwards as part of one's lure.

The most celebrated of all flights was the flight at the heron, in which the gyr was similarly deployed in combination with other birds. The main difference with the kite was that the prey might not be airborne but would frequently be spotted on the ground, often near the water's edge: the heron would therefore be sprung, by means of a first volley of direct, avian attack, by banging a drum or even (as the technology developed) by firing a weapon. Belisario has left us a brief account of flights at the heron in Southern Italy at the beginning of the 16th century, whereby peregrines and sakers first pursue the prey:

Vidimus tempestate nostra peregrinos sacrosque accipitres adnitentes, ut agrones volando persequerentur, relictis agronibus venatorum vocibus altis ad eos redisse: emissumque tandem e venatoris manu hierifalconem ita citatissimo volatu vagantem per aëra in girum, crebiorum alarum percussiones perspeximus, ut filo in sublimi tractum censeres; agronem ab alis derelictam quasi ad sidera ardeam vicissae coepisseque. (Belisario 1578, 96–97)

23 In Gauchet's 'Vol pour Milan' it is the kite's head that is used as the birds' reward (Jullien 1879, II, 71) before they are given other tidbits. D'Arcussia describes a similar practice in his Conférence des Fauconniers of 1626, specifying that the meat of the kite is harmful for the birds of prey (Loft 2003, 296).

24 The technique of a staggered release of hunting birds dates from the Middle Ages: Frederick II discusses the use of two or more falcons, including gyrs and sakers, to fly the crane (Paulus/van den Abeele 2000, 386–389). De Thou describes how in the flight at the kite or heron, the hunters first slipped the small merlin – an unusual choice – followed by two (unspecified) falcons with differing modes of attack, most likely a saker and a gyr (De Smet 2013, 316–319; 514–515; cf. Fig. 7).
In my day I have seen how peregrines and sakers exerted themselves to pursue herons in flight; called back by loud shouts, they abandoned the herons and returned to the falconers. At last, a gyr was thrown off the falconer’s fist. She flew [up] so swiftly, to roam and circle the air with a frequent beat of her wings, that you would have thought she was pulled up on a string: at this starry height, so to speak, she overpowered the heron which the other birds had abandoned and bound to it.

In his poem, *Le Plaisir des champs*, first published in 1583, Claude Gauchet (c. 1540–1620) depicts the hunting parties he witnessed at the court of Charles IX and at the country estate of maréchal François de Montmorency (d. 1579), who was a keen falconer. In the fourth part, on the winter season, an entire section of 160 lines (‘Le vol du héron’) is dedicated to a particular flight at the heron, featuring two sakers and two gyrs – tiercels, it appears from the introduction, although the text does not insist on this any further (Jullien 1879, II, 182–190). One of these was a white gyr (or gyrkin), given to Montmorency by the King. After describing the arrival of dogs, horsemen, falconers and onlookers, all full of joyous anticipation, the poet explains that it is precisely because of the gyr’s direct mode of attack – and so as not to dishearten the prey – that the heron is made to take wing and given a head start. The white gyr is unhooded and cast off first. A saker follows. In the end four predators are in the air, positioning themselves above the heron, which tries to outfly its pursuers. The poet describes in graphic detail (and a good dose of hyperbole) how one of the gyrs makes the first, audible attack:
... mais à la fin voicy
Un des gerfaults venir, qui descend tout ainsi
Que l’esclair vient d’en hault, et du grand coup qu’il donne
L’aer bien loing dans le ciel haultement en resonne.
Au choc l’oiseau se pleinct, qui sent en un moment
Redoubler sur son dos gueres moins rudement
Un autre cruel coup. Voicy le blanc approche,
Et vient de tel randon que le dard qui descoche;
Qui, d’un heurt impiteux le fuiant assaillant,
Se monstre au rencontrent si fier et si vaillant,
Que, contrainct de vomir, d’une criante gorge
Deux ou trois longs poissons mi-mourant il desgorge,
Rudement attaqué. De ce coup furieux
Chacun s’esbahissant tourne l’œuil vers les cieux,
Et vers l’oiseau vaillant, qui de vigoreuse aesle
Donne deux coups contre un; tandis, à tire d’aesle
A vau le vent fuiant, le long-bec se conduit;
Ores haut, ores bas chaque oiseau le poursuit,
Donnant l’un après l’autre. ... (Jullien 1879, II, 186–187)

But in the end, see how one of the gyrs moves in and stoops just like the downward strike of lightning! The great blow she deals resounds far and wide in the sky above. The prey whimpers at the shock but at once receives a second, cruel jolt to the back that is no less hard-hitting. Now the white gyr approaches and charges as speedily as an arrow shot from a bow: she attacks the fugitive with a pitiless knock and proves so fierce and powerful in the collision, that it makes [the heron] retch and with a shriek regurgitate two or three half-dead long fishes from its throat. So rough is the assault. Astounded at this violent hit, all turn their gaze toward the sky and the intrepid bird, which with a powerful stroke of her wings delivers two hits for every one received. Meanwhile, with might of wing Long-Beak seeks to escape down-wind. Alternately flying high and low, all the birds [of prey] give chase, charging one after the other ...

When the heron tries to outwit its attackers by landing and hiding in the reeds, the dogs are sent in to flush it out. A soaring gyr keeps the heron low, whilst the other birds attack it from beneath, until the gyr stoops and joins in the renewed assault, keeping the hawking party once more in delighted suspense. In a dramatic ending, prey and raptors all tumble down together (Fig. 8):

Voy-les-cy venir bas culbutants pesle-mesle,
Serrement le lians de leur serre cruelle,
Tant qu’à terre abbatu, sans force et sans pouvoir,
(Contre si fort part ne scachant plus pourvoir)
De mille coups de bec, sans nul espoir de grace,
Entre leurs mains il perd la vie sur la place. (Jullien 1879, II, 190)

See how they come down, jostling and tangling, yet tightly binding to [the heron] with their cruel talons. So the prey falls to the ground: drained of strength and power by a thousand merciless pecks of their beaks and no longer able to withstand such forceful opposition, it loses its life right there, under their clutches.
The falconers’ near consistent praise of the gyr’s superiority, audacity and persistence inspired artists and poets even when they were not strictly describing hunting scenes. Thus in the Portrait of a Gyr-falcon, viewed from three sides, the oak tree and beech tree on which these majestic gyrs are perched are thought to represent the princely virtues of strength and moderation (Gattringer 2008, 19): the gyr becomes a token of her noble owner. Pierre de Ronsard, in his unfinished epic poem La Franciade (II, ll. 1303–1310), likened the resolve in battle of the eponymous hero Francus to the determined stoop of a gyr attacking a swan. The swan would admittedly have been an unlikely prey in the actual hawking practices of 16th-century France, but was no doubt chosen here for its size, to echo the disparity between Francus and his opponent, the giant Phovère:

Francus voyant que le jour luy failloit  
Et que sa main pour neant travailloit  
Comme un Gerfaut qui de roideur se laisse  
Caler à bas ouvrant la nue espaisse  
Dessus un Cygne amusé sur le bord:  
Ainsi doublant effort dessus effort,  
Sur le grand corps s’eslance de rudesse,  
Adjoustant l’art avecques la prouësse. (Céard et al. 1994, I, 1075)

The swan may have been hunted in the Far and Near East. Planiol, in his treatise on falconry in the Orient, names this bird as prey for the gyr alongside the crane, with reference to the 14th-c. Arabic treatise Qawanin al-sayyad, but adds: ‘however, to avoid the gyr taking terrible hits from the [swan’s] wings, capable (it is said) of breaking a man’s arm, it is advisable to sew it into a white piece of cloth – the swan, that is, not the gyr!’ (Boyer/Planiol 1948, 125, my transl.). See also Herberstein’s testimony, quoted above.
Francus realised that in the failing daylight his hand but toiled in vain: and just like a gyr pierces the thickening cloud and stiffens to plummet down on a swan that idles on the river bank, so he redoubled his effort, and suddenly launched himself at the [giant's] big body, combining skill with courage.

The gyr’s battle with the heron could end in disaster for the bird of prey: Medieval and Early Modern falconry manuals do indeed describe elaborate treatments for birds that have suffered trauma to the head or torso by the beak of a heron or an eagle. In visual sources, the image of a falcon and heron engaged in aerial combat is a prolific motif: often the heron is depicted in a contorted way, craning its neck backward in an effort to stab the attacking raptor with its beak,26 which the animal was thought cunningly to hide under its wing. This peril, as one might expect, appealed to the poetic imagination and turned into a veritable *topos*. Étienne Jodelle (1585, 281), Jacques Auguste de Thou (De Smet 2013, 318–319) and Claude Gauchet describe how excited falconers watching from below would shout warnings to their falcon (usually a saker or gyr), when she is perceived to be at risk from being speared:

… Alors un cri commence:
*Gare ! Gare le bec !* Lors l’oiseau qui s’avance
Et si fier vient du ciel, de toute sa vigueur
Retient le coup forcé, destournant de roideur
De là où le bec prest de la beste maligne
Pointu comme un daguet s’appresté à sa ruine. (Jullien 1879, 346)

… At that moment the shouting begins: ‘Mind! Mind the beak!’ Then the charging bird, which so proudly stoops from the sky, with all her might holds back her forced attack. Awkwardly, she swerves to avoid the crafty animal’s ready beak, which – sharp as a dagger – is poised to cause her ruin. …

Clearly inspired by such literary and visual scenes, Claude Expilly (1561–1636), a magistrate and poet from the Dauphiné in the Southeast of France, left a long poem mourning the battlefield death of a young nobleman, Laurent de Galles, lord of Mestral. In it, Expilly uses the – real or imagined – sighting of a gyr defeated by a heron as an ominous foretelling of Galles’ untimely demise during the siege of Crémiëu (some 43 km east of Lyon), in February 1590:

*Je vie n’a pas long temps sur le haut de la tour
Un Gerfaut, reconnu des chasseurs d’alentour,
Qui mainte et mainte proye avoit desja ravie;
Je le veis eslever pour combattre la vie
D’un Heron passager; le Heron se haussant
Gagnoit l’air et le vent, et le Gerfaut puissant,
Remontant au dessus dans le sein de la nuë,
Comme un trait, comme un feu fit sur lui sa fonduë:
Mais, ô pauvre Gerfaut! je te veis attaché
Dans le bec du Heron sous son aise caché:
Le vainqueur et vaincu cheurent morts sur la terre.
Telles sont bien souvent les fortunes de guerre:*

26 On this iconographic theme, but without specific reference to the gyr or saker, see Konečný 1990.
J’aprehende l’augure, il ne faut mespriser
Jupiter, qui nous veut du futur aviser. (EXPILLY 1596, 9)

I saw not so long ago high upon a tower a gyrfalcon that was well known among the local huntsmen for having taken many a prey. I saw her take wing, to engage in deadly combat with a passager heron. The heron took off, up into the air and to the wind, and the mighty gyr rose into the clouds; then like an arrow, like a blaze, she stooped upon the bird: but, o poor gyr! I saw you speared by the beak hidden under the heron’s wing; both victor and victim fell dead upon the earth. Such are all too often the fortunes of war: I take heed of the omen, as one ought not disdain Jove when he wishes to alert us to the future.

Expilly’s gyrfalcon is a heroic victim, a sad and disconcerting symbol of the bold but fated soldier, and as such a hale *memento mori*. Indeed, beyond the specific context of Laurent de Galles’ commemoration, Expilly’s message is concordant with the moral warnings ‘Nulla salus bello’ (‘There is no safety in war’) or ‘Exitus in dubio est’ (‘The outcome is uncertain’), which late 16th-century emblematists such as Joachim Camerarius the Younger (1534–1598) attached to the falcon’s battle with the heron (*KONEČNY 1990, 114–116*).

The poets’ emphasis, however, does not always lie on the gyr’s valour or virtue. Guillaume Guéréroult’s *Blason des oyseaux* of 1550 includes a moralising emblem in which the gyr represents a prince or grandee who abuses his superiority. All too often, warns the poet, the little people are the victims of such an abuse of brute force:

Le Gerfaulx.

Beauté au corps[,] hardiesse en courage,
Ce sont deux dons louables grandement.
Le fier Gerfaulx a bien c’est avantage:
Que de ces deux il reçoit ornement.

L’aigle Royal il combat vifvment,
Et maintefois le surmonte, et l’opresse.
O l’honneur deu à sa grande prouesse,
Si seulement il cherchoit ses semblables!
Mais les petits (helas) trop misérables
Le plus souvent de luy sont envahys,
Tuez meurtris en tous lieux et pays,
Quand du combat la plus grand’ force est sienne.

Helas tousiours ceste playe ancienne
De plus en plus acquiert accoustumance:
C’est qu’aux petits les plus gros font nuysance. (GUÉROULT 1550, 44)

The Gyrfalcon.

Physical beauty and bold courage are two, greatly laudable gifts: the haughty gyr has this very advantage, of being graced with both.
Vigorously she attacks the golden eagle, and often she soars higher and brings her down. O what honour her great prowess would bring, if only she sought out her equals!
But alas, most often she attacks, slays and murders her all too wretched underlings, in any place or country, when the greater battle force is on her side. Alas! To this day this timeworn scourge is becoming evermore commonplace: that is, that the high and mighty harm the little man.

The poem and its rather crude illustration of a gyr on a perch (Fig. 9) do not betray any first-hand knowledge of the gyr. Instead, the emblem relies on the persistent medieval traditions that gave rise to a received idea of the gyr’s capacity for making any other bird, including the eagle, shake and flee in fear.

Notwithstanding Guéroult’s rather negative take on the gyr, the high-flying raptor provided an increasingly common analogy to praise exceptional achievement. The humanist, historian and translator Blaise de Vigenère (1523–1596) seemed particularly fond of the notion and applied it no less than three times to the poets of his time, who embellished and elevated the French language. First, in a passage reflecting on appropriate styles of writing, he contrasts his own, lower and heavier prose style to the loftier achievements of the poets of the Pléiade in general:

… iusques icy nous n’avons fait ma- niere de dire, que hascher à tire d’esle, et encore assezz pesamment rez à rez de terre; là où les bons poëtes de nostre temps s’en sont allez, au moins les bons, à guise de quelque Gerfaut ou Faucon peregrin se perdre là haut dans le cieł d’une tres-heureuse hardissesse …

(Vigenère 1578, 289)

… up to this point we have only managed to cut through the air (in a manner of speaking), winging rather heavily and close to the ground, whilst the good poets of our time, at least the better ones, have soared, to lose themselves, like some gyrfalcon or peregrine, high up in the sky with felicitous boldness …

Elsewhere, he singles out Ronsard, who for his knowledge of Greek, Latin, Italian and Spanish ‘has soared like a gyr over some tiercel goshawk’ (‘Ronsard […] s’est eslevé comme un gerfault par dessus quelque tiercelet d’autour’; cf. Vigenère 1589, 101). Last but not least, he expands on his original simile in the prologue to his translation of Torquato Tasso’s Gerusalemme liberata. Here, Vigenère once more compares poets to ‘a sore gyrfalcon who when cast off loses herself high in the air with just two beats of her wings’ (‘comme un gerfault sor, qui au partir du poing en deux tour d’esle se va perdre en hault dans le ciel’). Prose writing, on the other hand, resembles the tiered, zigzagging flight of old, bangling sakers (six times intermewed) that are used to harass the quarry on the wing.
‘quelque[s] vieils estomisseurs de sacres de cinq ou six mues’) but have more endurance than the gyr and are able to stay in the air for longer (Vigenerë 1595, iiii). Whilst particularly apt to an age and society where falconry was a fashionable pastime, the image of the gyr as the principal bird of prey, outdoing all the others, still persists: to this day, French writers and journalists use the term les gerfauts metaphorically, to refer to the leading figures of a movement, party or association.

**Conclusion**

The Latin and vernacular testimonies about the gyr in 16th and early 17th-century France and Italy that we have surveyed do not constitute an exhaustive inventory. Broad-ranging as they are, however, they demonstrate a marked shift in attitude towards the gyr and other birds of prey, especially from the middle of the 16th century onwards: whilst Medieval hunting treatises and natural histories were still being reprinted and read, their word on the gyr was not taken for granted, as falconers and scholars alike began systematically to weigh the traditional body of knowledge against statements from Ancient authors and newly anthologised reports about gyrs in the far North and Russia, as well as their own observations (of which Belisario has provided an early example). It is true that close experience of a gyr remained the prerogative of a select few, and that observations of the raptor’s physique, flight, and hunting habits were not conducted in the bird’s natural environment. However, the seed for a scientific approach to the gyr was evidently not planted by Jan Jonston or Carl Linnaeus; it began with the likes of Belon, Gessner and Aldrovandi. This development had its counterpart in poetry from the second half of the 16th century onwards: the blunt moralisation of a Guéroult was no match for the painstaking hunting-related poetry by the likes of Jodelle, Ronsard, de Thou and Gauchet, who savoured the jargon and technicalities of hawking and on occasion have preserved details that cannot be found elsewhere. Handled carefully, such texts usefully complement the period’s ornithological diagnoses. Above all, it is thanks to to their vivid evocations of flights at the heron, kite or partridge that we can now imagine how the audacious yet majestic Nordic gyr took wing over the foreign fields of Renaissance France and Italy.

**Acknowledgements**

This article was written during my tenure of a three-year Leverhulme Major Research Fellowship (2011–2014). I am grateful to The Leverhulme Trust for the time and flexibility this award gave me to pursue this additional line of research alongside my main project. I also owe thanks to Oliver Grimm (ZBSA, Schleswig), David Horobin (Falconry Heritage Trust), Robert Nedoma (University of Vienna), Katherine Marshall (Sotheby’s), Patrick Morel (International Association for Falconry and the Protection of Birds of Prey) and Baudouin Van den Abeele (UC Louvain) for their insightful comments and/or help with the illustrations.

**References**

Aldrovandi 1599: U. Aldrovandi, Ornithologia, hoc est de avibus historia libri XII (Bologna 1599).
Belon 1554: P. Belon, Les observations de plusieurs singularitez et choses memorables, trouvées en Grece, Asie,
Judée, Égypte, Arabie et autres pays étrangers (Paris 1554).


Carcano 1568: F. Sforzino da Carcano, Tre libri de gli uccelli da rapina (Venice 1568).


Champlain 1632: S. de Champlain, Les voyages de la Nouvelle-France occidentale, dicte Canada, fais de le Sr de Champlain, ... où se voit comme ce pays a esté premièrement découvert par les François ... [par le P. J. Ledesma] (Paris 1632).


Cotgrave 1611: R. Cotgrave, A Dictionarie of the French and English Tongues (London 1611) [http://www.pbm.com/~lindahl/cotgrave/].


Franchières 1585: La Fauconnerie de Jean de Franchières, ... avec tous les autres auteurs qui se sont peu trouver traictans de ce subject. De nouveau reveue, corrigée et augmentée outre les précédentes impressions (Paris 1585).

Frederick II 1596: Frederick II of Hohenstaufen, Relia librorum de arte venandi cum avibus, cum Manfredi regis additionibus [edited from the manuscript of Joachim Camerarius the Younger] (Augsburg 1596).


Gessner 1555: C. Gessner, Historiae animalium liber III qui est de Avium natura (Zürich 1555).


Guéroult 1550: G. Guéroult, Second livre de la description des animaux, contenant le blason des oiseaux (Lyon 1550).


Harmont 1634: P. Harmont (dit Mercure), Le Miroir de fauconnerie, ou se verra l’instruction pour choisir, nourrir, & traicter, dresser & faire voler toute sorte d’Oyseaux, les muer & essimer, connaı̈estre les maladies & accidents qui leur arrivent, & les remedies pour les guerir. Dédie à Monseigneur le Duc de Luynes (Paris 1634).


Prof. Ingrid A. R. De Smet
School of Modern Languages and Cultures/Centre for the Study of the Renaissance
University of Warwick
Great Britain
I.de-Smet@warwick.ac.uk