



DEVELOPMENT OF FALCON MEDICINE FROM PAST TO PRESENT

NYUAD Falconry Workshop
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700 AD

- Adham ibn Muhriz Al Bahili': "Manafi'a Al Tair wa Ilaqt Da'iha" (The Use of Falcons and the Treatment of their Diseases)



- Earliest written manuscript about falcon medicine

8TH CENTURY SYRIA: DAMASCUS

◉ Al Gitrif ibn Quadama al-Gassani:

- earliest written manuscript
 - His most famous work: “Kitab Dawari At-Tayr” (Book of hawks and falcons) includes Persian, Turkish, Byzantine and Arabic treatises on falconry including falcon treatment.
 - He was Master of the Chasse at the Royal Court of the Umayyad caliph Hisam ibn Abd Al Malik (724-743AD)
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- ◉ *“When you see that the foot of the bird is swollen, so know that it is broken (kasr) or pneumatosis or a dislocation has occurred.”*
 - ◉ *clinical picture of swollen feet and yellow liquid that runs the chapped feet*



808-873 IRAQ: BAGHDAD

- ◉ Hunain ibn Ishaq: “Moamin” tractate being one of the most important falcon treatises in the early ages
- ◉ *warts (“veruche”), furuncles and holes contribute to swelling of the foot sole*
- ◉ *‘Podrages’ mentioned for the first time*
- ◉ *Foot swelling as sign of bodily fluids*



1080 - 1152 ENGLAND, BATH

- ◉ Adelardus (Æthelhard of Bath): tractate "De Cura Accipitrum" and De Avibus Tractatus (Treatise on Birds)

- ◉ *Podagra*

- ◉ "*Contra porros in pedibus*", scab

- ◉ *inflammation of the falcon feet*



12TH CENTURY ITALY: SICILY

- ◉ Tractate of “Dankus”: One of the most famous and most quoted pieces of European Medieval hunting literature was written by an unknown author at the court of the Norman kings of Sicily

- ◉ *swollen feet*



13TH CENTURY: BYZANTINE

◉ Demetrius:

- Tractate about podagra
- book about falconry

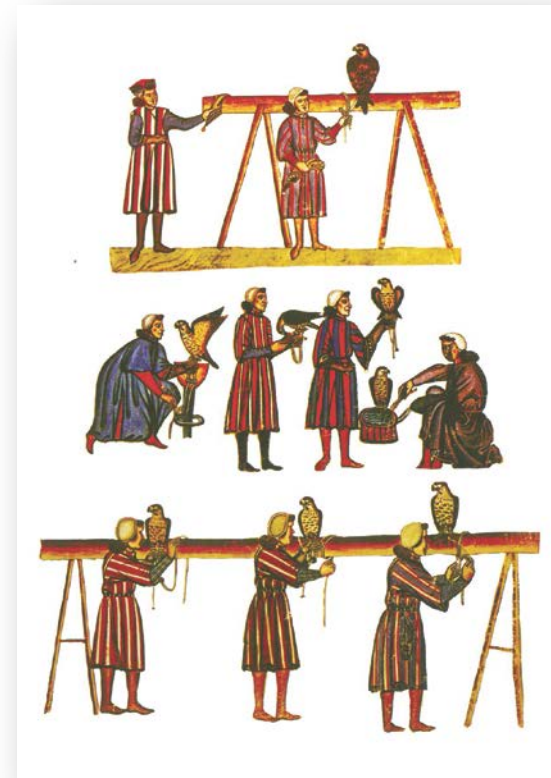
◉ *podagra and swollen feet*

◉ *cause of swollen feet:
harsh snow and rough jesses*



1240 GERMANY

- Frederick II of Hohenstaufen: "De Arte Venandi cum Avibus" containing detailed anatomy of falcons. Several parts of his genial masterpiece have remained valid until today and were much ahead of his time



13TH CENTURY GERMANY

- ◉ Albertus Magnus (1200-1289 AD): Important falconry and falcon medicine treatise "De falconibus"
- ◉ *Swollen feet: salted body fluids leading to self-mutilation of the falcon in its foot area*



1379 FRANCE

- ◉ Henri de Ferrières : Important treatise about falconry and falcon medicine “Livre du Roy Modus et de la Reine Racio”



- ◉ *swollen feet as headline of a drug prescription without further explanation*

1434-1442 GERMANY

- Heinrich Münsinger:
"Ältere Deutsche
Habichtslehre" (Older
German hawk treatise):
first original falconry
literature without being
based on Oriental
transcripts



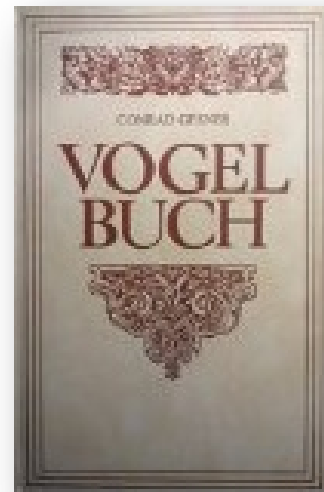
1486 ENGLAND

- ◉ Dame Juliana Berners
"The Boke of St. Albans"
- ◉ one of the most famous pieces of hunting literature in Medieval England
- ◉ first book about falconry and falcon medicine written by a woman



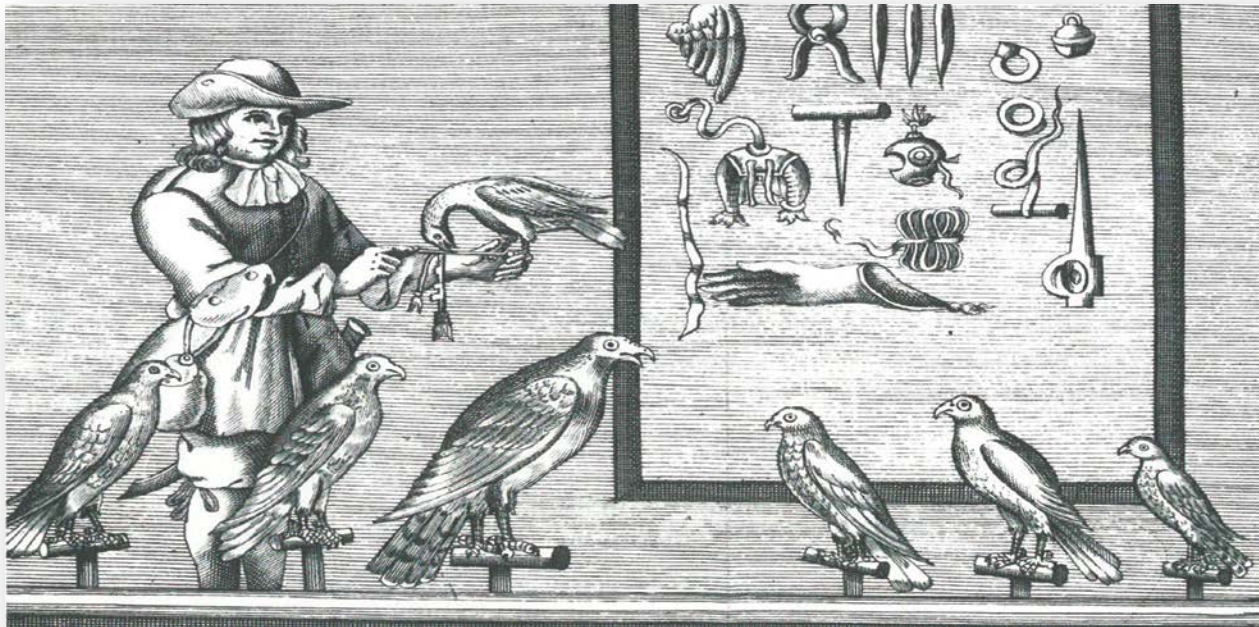
1551 TO 1555 SWITZERLAND

- ◉ Conrad Gesner: “Vogelbuch” (The book of birds)
- ◉ original manuscript
- ◉ *falcon diseases and their cure*



1567 GERMANY

- ◉ Johann Wolff's "Falkenerybuch" (Book of falconry) published in Poitiers
- ◉ *Tumor of the feet*



1575 ENGLAND

◉ George Turberville

- compendium “The Booke of Faulconerie or Hawking”
- ◉ *“Swollen feet” for the first time as an unique clinical picture with its pathogenic causes.*
 - *direct differentiation between endogenous and exogenous pathogenic factors*
 - ◉ *endogenous factors*
 - *“yll humours”*
 - *“...weaknesse of the foote or arme”*
 - *“through ages” of the falcon.*
 - ◉ *exogenous pathogenic causes:*
 - *extensive hunting and training*
 - *old or newly acquired injuries caused by preys and thorns*
 - *especially in sakers*



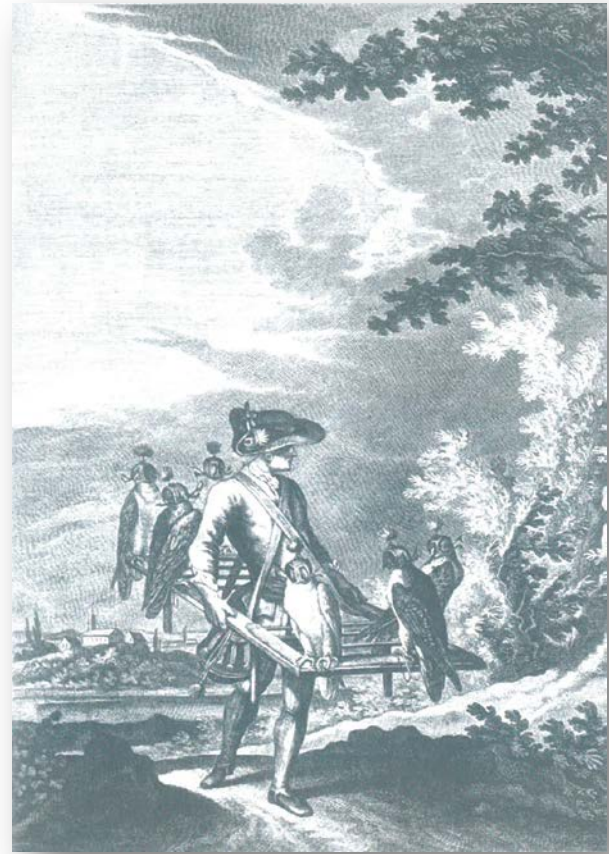
1598 /1617 FRANCE

◉ Charles d'Arcussia

- "La Fauconnerie de Charles d'Arcussia"

◉ *Causes of swollen feet:*

- *injuries and skin abrasions caused by too tight jesses*
- *fighting with its prey*
- *extensive wing flapping of the falcon*



1615 TO 1618 ENGLAND

◉ Simon Latham

- “Lathams Falconry or the Faulcons Lure and Cure into Bookes”
- The second volume on the medical treatment of falcons is even today regarded as an exceptional document of early modern medical methods

◉ *pin development to bating of nervous and tethered falcons during their moulting period*



1868 PERSIA

◉ Husam d-Dawlah Taymur Mirza

- “Baz-Nama-Yi-Nasiri” being one of the most famous modern falconry tractates

- ◉ *swollen feet caused by bruises without signs of discoloration: “Hafa”*
- ◉ *appearance of black spots on the sole area caused by a collision of the falcon with its quarry gazelle*



19TH CENTURY INDIA

◉ Gah-I-Shaukati

- tractate about falconry including falcon medicine in the East

- ◉ *Swollen feet: weakness in the legs and black spots between the swelling of the falcon foot*
- ◉ *Podagra: falcon suffering from gout is unable to hold its prey*
- ◉ *“corn”*
- ◉ *hyperthermia in the area of legs, feet and claws*



1983 - 2015 UAE

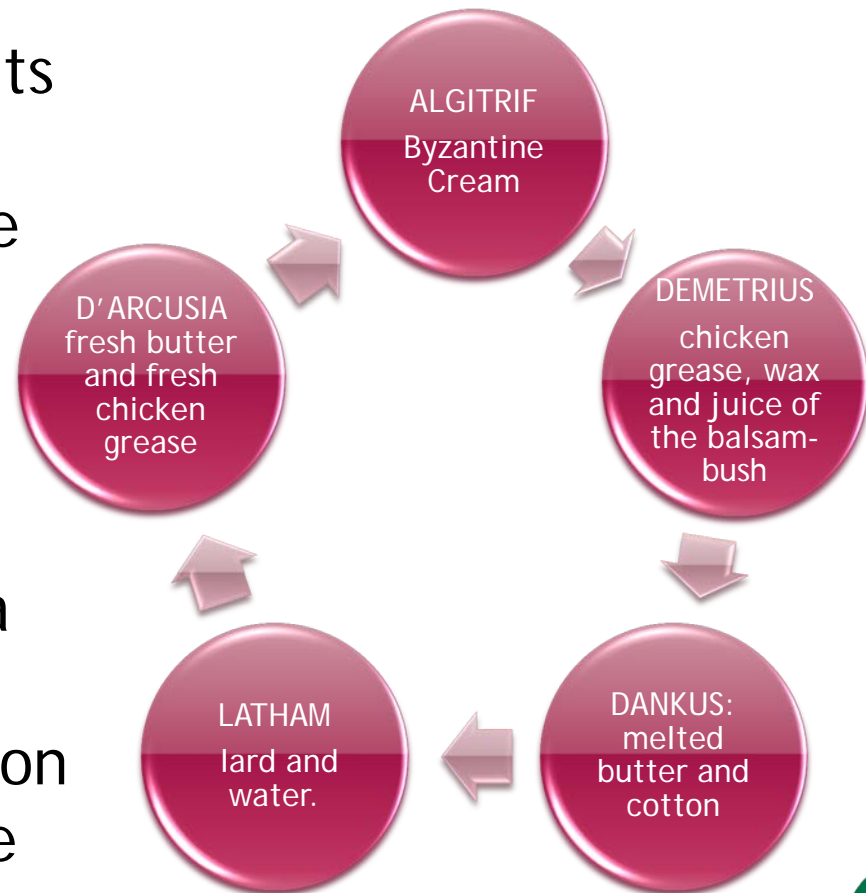
- ◉ 1983: Dubai Falcon Hospital
- ◉ 1985-2008: Abu Dhabi Falcon Research Hospital
- ◉ 1999: Abu Dhabi Falcon Hospital



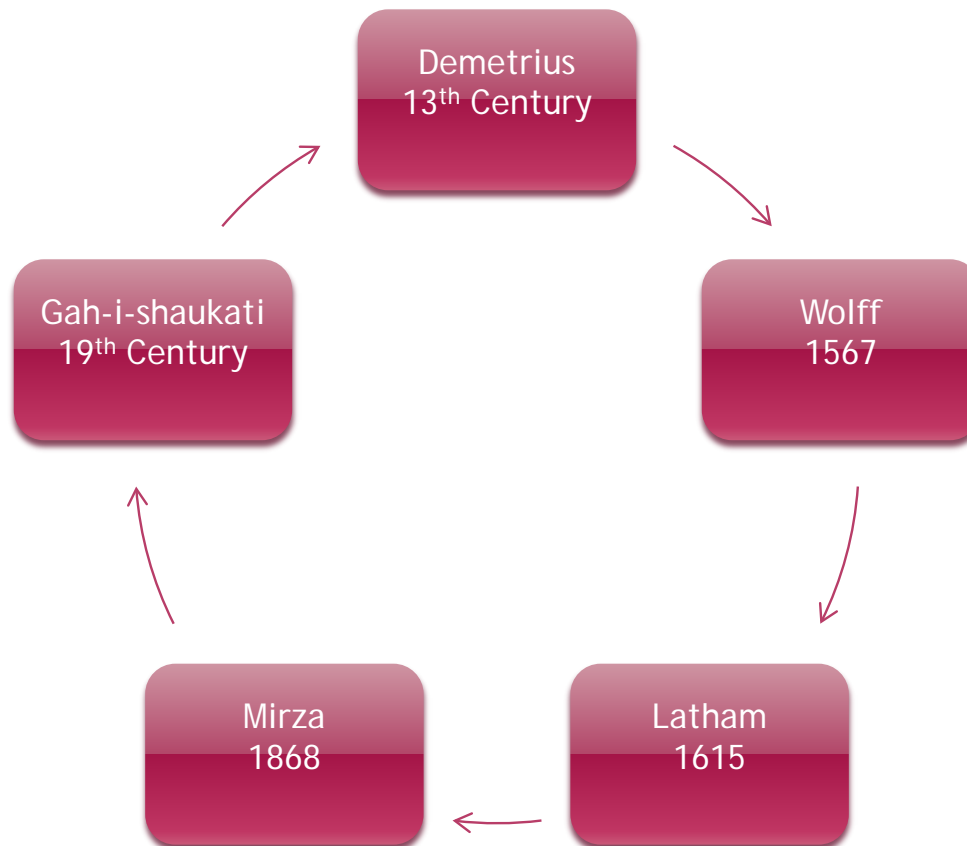
SWOLLEN FEET: EXAMPLE FOR TREATMENT: CREAMS

One of the most famous medieval oriental ointments is the panacea “Byzantine Cream” consisting of goose fat, dried milk, egg yolk, white wax, vinegar and incense

in the Medieval Occident a wide-spread and often copied ointment preparation against podagra was made out of butter olive-oil and aloe.



SWOLLEN FEET: EXAMPLE FOR TREATMENT: INCISIONS AND SURGERIES



SWOLLEN FEET: EXAMPLE FOR TREATMENT: CAUTERISATION

GAH-I-SHAUKATI
19th Century



DANKUS
12th Century



ALBERTUS MAGNUS
13th Century



D'ARCUSSIA
1598 / 1617

CONCLUSION

- ◉ Falcon medicine started in the Arab-Persian region
- ◉ 13th and 14th century was the high time of falconry in Europe through contact with Arabs during the crusades. The early falconry manuscripts were translated in Latin language as the main language of the Medieval Times.
- ◉ In the 18th century, falcon medicine returned to Persia and India
- ◉ The historic manuscripts show a continuity dating from early Middle Ages to modern times
- ◉ Until the 18th century the European hunting literature can be compared to a card-house as author after author is relying on previously published works of authors before his time



AND TODAY?

- ◉ Late 20th and early 21st century: falcon medicine had its peak in the Middle East, especially in the United Arab Emirates
- ◉ Pododermatitis is defined as multifactorial diseases caused by lack of exercise, metabolic disorders, overweight, injuries and traumata to the feet

Falcon medicine went through a world wide cycle and returned to where it began - the Arab region



THANK YOU VERY MUCH
FOR YOUR ATTENTION!

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REFERENCES

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- ◉ Muller, M. G.: Studien über Sohlenballengeschwüre bei zur Beizjagd genutzten Falken in den Vereinigten Arabischen Emiraten“ (Studies on bumblefoot in hunting falcons in the United Arab Emirates), 1999, Ph.D Thesis

