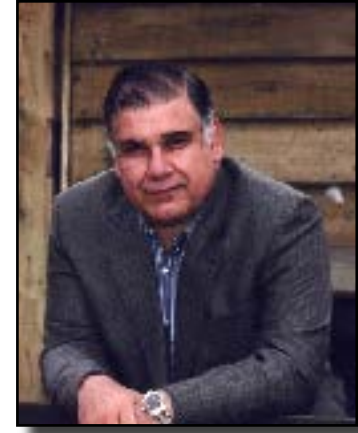
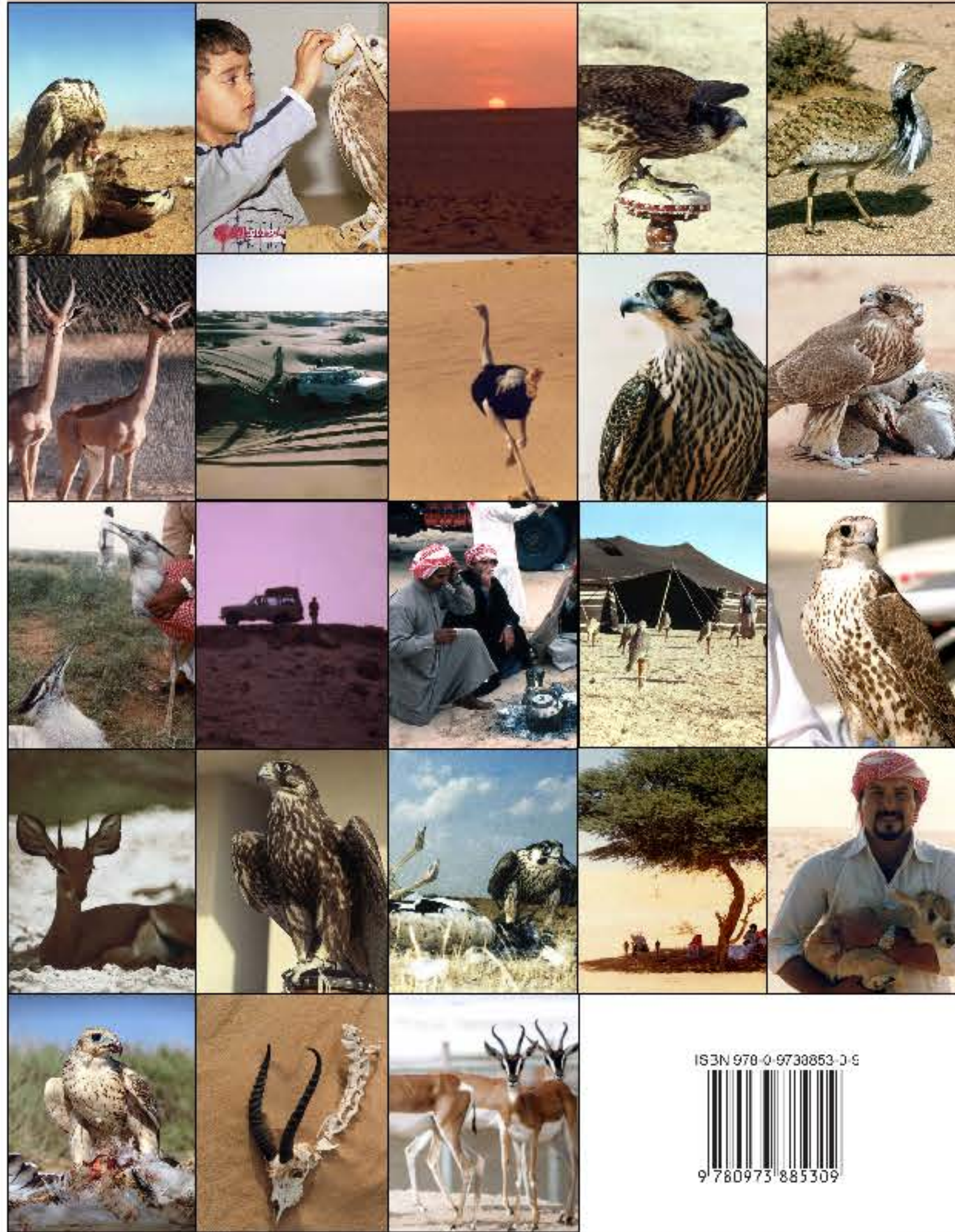


ABOUT THE AUTHOR



Faris Al-Timimi, a veterinary surgeon, started working with falcons at the Doha Veterinary Practice from 1981 to 2002, which was the first veterinary clinic dealing mainly with falcons in the entire Gulf region. He also became involved in the veterinary care and management of rare African and Asian Antelopes kept in a private collection of wild animals in Al-Wabra, Qatar from 1983 to 2000. In 2002, he moved to the Kingdom of Saudi Arabia to set up The Eastern Region Falcon Clinic in Al-Khobar, by the invitation and sponsorship of H.R.H. Prince Turki bin Muhammad bin Fahd Al-Saud. He published his first book on falcons "Falcons and Falconry in Qatar" in 1987, and the second book, in Arabic, followed in 1992. Faris A-Timimi welcomes contact at these e-mail addresses:

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FALCONRY AND HUNTING IN ARABIA

FARIS AL-TIMIMI

FALCONRY AND HUNTING
IN
ARABIA



FARIS AL-TIMIMI

Handwritten signature



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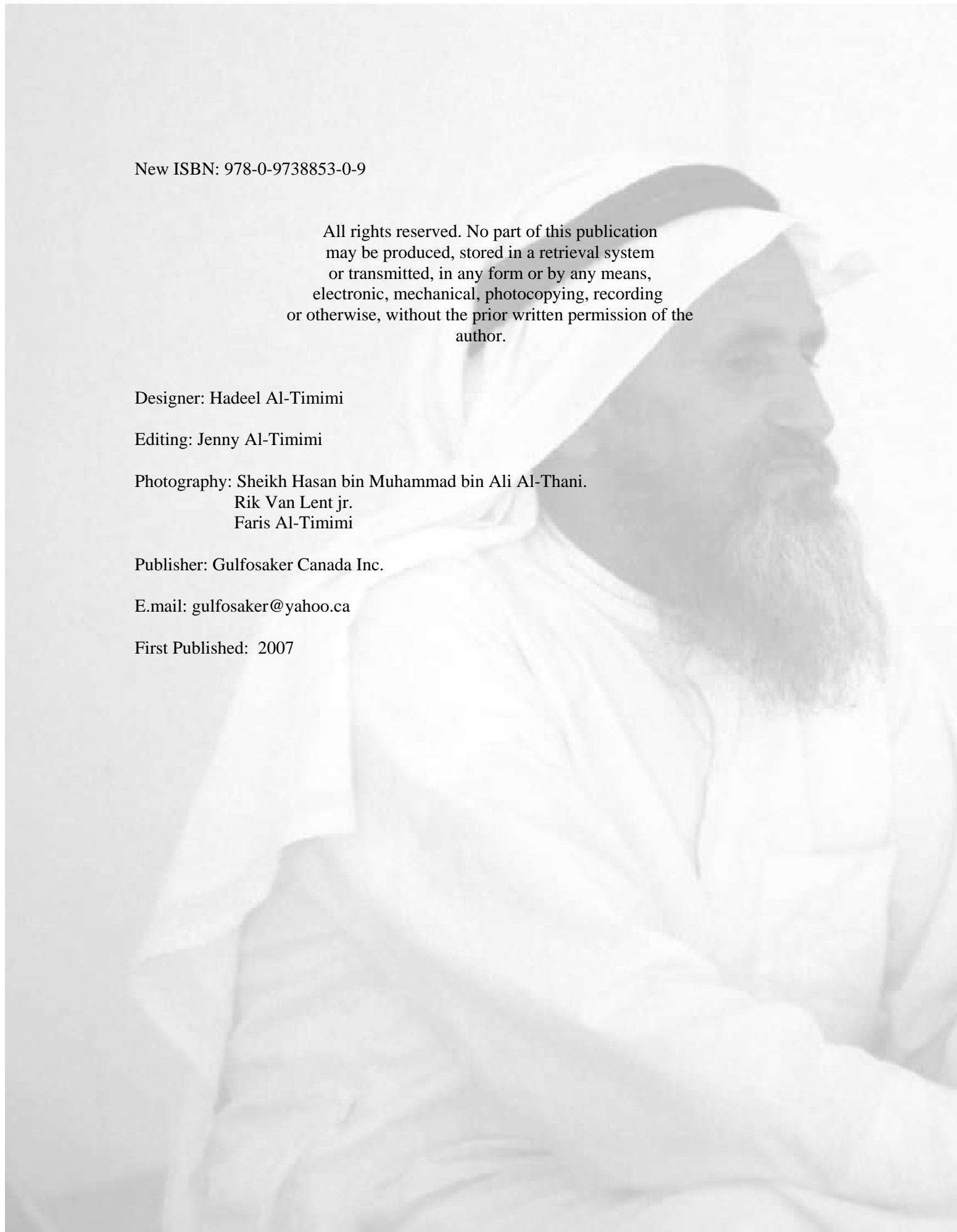
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**FALCONRY AND HUNTING
IN ARABIA**



FARIS AL-TIMIMI



Foreword

The sport of falconry was one of the first sports practiced by our fathers and grandfathers for many centuries and goes back to the early Islamic era. Both the poor and the rich powerful people practiced it. It was essential to the Bedouin in the desert to assist him in getting some of the daily food he needs in the arid desert. For the powerful people, it was something to teach them patience, strength, and a challenge in addition to the joy of living for sometime in the nature they love. We have happily inherited this sport, proud to practice it, and we are doing our best to pass it to our future generations. Our interest in this sport runs parallel with our love for and care of our natural environment all over the Arabian Peninsula, for which we did our best to save and maintain. We established the needs basis for the care and research of the environment, and part of it was to provide the veterinary service to the falcons, which are the fundamentals of this sport. This includes the invitation we extended to Dr. Faris Al-Timimi, one of the earliest veterinarians who worked with falcons in the Gulf Region. We are pleased that we have him in our country to provide the veterinary service to our falcons, and help the falconers in maintaining the health of their falcons. We wish him and continued success, by the will of God.

Turki bin Muhammad bin Fahd Al-Saud

A black and white photograph of a desert camp. A large, dark tent is pitched on the left side of the frame. In the center, a person wearing a headscarf and a long-sleeved tunic stands facing the camera. The ground is sandy and uneven. The background shows a vast, open desert landscape under a bright sky.

FALCONRY AND HUNTING IN ARABIA

To

*His Royal Highness Prince Turki bin Muhammad bin Fahd Al-Saud,
for his long support and assistance to my work in the
Kingdom of Saudi Arabia
where he generously furnished every possible way to overcome the difficulties
which could face my work in the set up of the new
Eastern Region Falcon Clinic.*

FARIS AL-TIMIMI



ACKNOWLEDGMENTS

My genuine gratitude to
H.E. Sheikh Hasan bin Muhammad bin Ali Al-Thani,
for his continuous support for my work and the
valuable photographs which he took during the different hunting trips.

Also I would like to acknowledge the genuine feelings
which were exhibited by many of the falconers who
always supported my work, and believed that
I did a lot to save their valuable falcons.

I would also like to send my gratitude and thanks to
Jenny Al-Timimi, for her editing this book.

A special thank you to Rik Van Lent jr. who offered five of his
excellent photos to be used in the book.

APOLOGY

I would like to express my apologies in advance to
those people whom I have criticized on various points,
which I have mentioned here in this book.
I still believe that those points of criticism should be mentioned,
because they illustrate part of the difficulties
I always faced in my work with falconers.



FOREWORD

I am very pleased and honoured to be asked to write the Foreword for Dr. Faris Al-Timimi's new book on birds of prey. Faris is a friend of many years' standing. As veterinarians we have a shared concern for the health, welfare and conservation of birds, especially those that are kept in captivity and used for the ancient sport of falconry.

Faris' origins, like many of the birds about which he writes, are in the Middle East. However the term the "Middle East" is bland and imprecise. It refers to the enormous area of SW Asia that lies between the Mediterranean and Pakistan. As such, it encompasses many countries and cultures, each of which has its own history and traditions. It also includes some of the world's most beautiful, but environmentally threatened, terrain, ranging from deserts to mountains and marshlands.

One must not underestimate the contributions made by the Arab world to medical science as well as to art, culture and religion. Insofar as the first of these is concerned, it was Muslim physicians and writers who kept alive and fanned the flames of knowledge during the period when Europe was in the Dark Ages, approximately 600-1500 years ago. These scholars studied the diseases and treatment of both humans and animals and built on the Greek traditions that were then still the basis of the practice of medicine.

The "Middle East" also laid the foundations of a significant amount of our knowledge and understanding of birds. Thousands of years ago Mesopotamia, a region of present-day Iraq, sometimes described as the cradle of civilization, was a great centre of learning. It was there, for example, that the wild rock dove, Columba livia, was first brought into captivity, domesticated and selected for various traits to become our familiar and ubiquitous domestic pigeon..

Arabia is one of the ancestral homes of falconry, as Faris Al-Timimi reminds us so graphically in this book. The Arabian Islamic Manuscripts and other publications, written centuries ago, reveal the authors' deep understanding of birds of prey, their lives in the wild and how to keep them in good health in captivity.

This long and distinguished history is matched today by the contributions made by the region to contemporary falconry and to the study of birds of prey. Far-sighted people, from different countries in Arabia and elsewhere, have funded and supported activities ranging from the organising of conferences and publishing of books to the establishment of falcon clinics and the conservation of wild places. At a time when the "Middle East" finds itself at the heart of political division, it is important to remember the role played by many in the region in helping to protect animals, including birds of prey, plants and their habitats for future generations to enjoy.

This book, like its predecessor, will contribute much to our understanding of birds of prey and, in particular, will help to promote their well-being in captivity. I am very happy to commend it to readers.

John E. Cooper, DTVM, FRCPath, FIBiol, FRCVS
Diplomate, European College of Veterinary Pathologists
Professor of Pathology
The University of the West Indies
St. Augustine, Trinidad and Tobago



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PREFACE

For some time I have been very hesitant about publishing this book for many reasons. Some of the reasons were related to the book itself, like how much new information I could give to the readers through this book, other than the information I already gave in my first book **“Falcons and Falconry in Qatar”**, which has been out of print since the mid 1990s. Other reasons were related to the hardship of personally publishing and distributing a book of this kind. This is because most publishers are reluctant to undertake the venture of producing and distributing a colourful book like this one, which costs much more than a black and white text or novel. Adding to this is the limited market for this kind of book, because of its very specialized field, and the limited number of readers who are interested in books on falcons. In the case of a book like this, it was clear that most book publishers require the author to provide a sponsor who can at least finance a major part, if not all, of the cost of production of the book. However, providing a sponsor or a publisher may influence and limit my writing freely. This book will possibly be my last book on the subject of falcons before I retire. Therefore I would much rather take this writing opportunity to express my actual experience and personal opinions about different topics mostly related to falconry without the limitations of others. I feel I really have many points to state in this book, points that I did not care that much to state in my first book. Maybe my points were not clear or mature enough at that time. Certainly, many changes in different aspects of the sport of falconry have occurred that are worth recording and explaining. Also, some of the medical issues and understanding which are related to falcon health and treatment of diseases, have undergone development and advancement in methods, techniques and medications. Most of those methods and techniques have already been published in falcon diseases books, magazines and periodicals, therefore I see no point of repeating them here in this book. For all the aforementioned reasons and motives, I have decided to go ahead in publishing the book myself, as I did with my first book on falcons.

After completing my study at the *College of Veterinary Medicine, University of Baghdad*, I had to go for compulsory military service for eighteen months. That period, in my opinion, was a waste of time. I did not understand how that experience could have added to my knowledge or understanding as a new veterinary graduate. The whole time spent and experience which most of the graduates had to face in their military service, were negative aspects of their lives. It was the same for me. It was simply a waste of time and effort. I was appointed to the college from where I had graduated, as a veterinary surgeon in charge of the College’s animal farm. A few months later I transferred to the Division of Poultry in the Department of Pathology. That was the nearest division to my real interest since my childhood, which is the avian world. However, I could not satisfy much of my interest by doing this due to the lack of avian cases other than chickens, which were daily and regularly sent to this section from commercial poultry farms, for the purpose of disease diagnosis. While I was working in that department, I was able to use my spare time which was enough to write my first book on Pigeons. The book was published in Arabic by the University of Baghdad. It was a general book on everything about pigeons, with a special account

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of the pigeon breeds in Iraq. Soon after, I realized that there was no more interesting work that I could do by staying in the same college, apart from the routine work with the diagnosis of poultry diseases. I felt the need to expand my experience, therefore I left for *England*, where I was hoping my true interest in the avian world would thrive. My first job in *England* was in the *Salisbury Laboratory, Wiltshire*, which was owned and operated by *Mr. Peter Dalton*, the poultry specialist. The Salisbury Laboratory was basically dealing with the diagnosis of poultry diseases, and the main clients were poultry producing companies and farmers. That kind of work was to a great extent the same which I was in charge of at the college in *Baghdad*. Although the laws and regulations in *England* were much more lenient than they were in *Iraq*, and although I enjoyed my freedom at the workplace as well as in my daily life, I was still not very fond of the lack of duties and experience provided at that job. Not long after, the similarities of my then current job and my first job in *Iraq* dawned on me. It was then that I decided to search for something new. That was when the opportunity to work in *Qatar* emerged. It was a job to set up a veterinary clinic and operate it as the only veterinarian who would be running the clinic which specialized in providing a veterinary service for hunting falcons. Despite the fact that, by nature, I was not the type who loves to explore new places, let alone move to new countries, to begin a new life and work, I felt that this was a perfect job for me. It would be a great start to expand, improve and sustain my past knowledge about the avian species in general. I simply could not allow this opportunity to pass. Therefore, I took the first step and applied for the position.



2- *The Falcon Clinic in Doha was small in size, but reasonably equipped at its time. This was the Doha Veterinary Practice, Doha, Qatar 1983.*

Sheikh Khalid bin Ali bin Abdullah Al-Thani was the financial sponsor of the clinic. He consulted *Dr. John Cooper* to interview the candidates and chose one. I began this fulltime career with falcons in November 1981, when I first arrived at *Doha*, the capital of *Qatar* to set up the new *Doha Veterinary Practice*. Although it was small in size, not very well equipped and did not enjoy financial support for more than a year, it was the first falcon clinic to be founded in the whole region. Since the beginning, many people who were related to *Sh. Khalid*, did not like the idea of establishing this clinic, and some of them even opposed it and did everything in their power to have it fail. Some were working for *Sh. Khalid* himself, others were the veterinarians who were working for the poorly performing government veterinary hospital. Each of those veterinarians had their own reasons for their attitude to this new falcon clinic. The years I spent running that clinic were full of unpleasant stories. When I try to remember many of them, I recall the bitterness of many of their aspects and therefore would rather avoid mentioning them in detail. Many of those acts were unbelievably committed by some who posed as friends, others by some who obviously had difficulties in understanding the smallest things related to modern life. The veterinarians of the government hospital had their own reasons, which were mainly based on the fear that the clinic was being established to reveal their failure to properly handle and cure falcon cases. Soon after my arrival in *Doha*, I realized that I was going to live and work under a very high diversified pressure. I also realized that if I wanted to survive until I could accomplish what I had in mind, I would have to fight my own battle against different attitudes. Although most of those mentalities were almost the same, they certainly needed different approaches. It is not advisable to approach the attitude of a very wealthy *Sheikh*, in the same way as one would approach a simple *Bedouin*. At that time in most cases, falconers in *Qatar* were very reluctant to take their falcons to the veterinarians, which obviously was because of the very bad impression the vets created and left in their minds. It was obviously the same in the other Gulf states because, there was no veterinary clinic which properly dealt with the falcons. At that time the vets prescribed medicine to the falcons in the form of powder or liquid, and were recommending that these medications should be administered in the same way as if the falcons were chickens or pigeons. In many cases, they were recommending that the medication should be used with food, even though the falcon had been off food for several days. I realized that many of those veterinarians had no idea that the falcons do not drink as much water as chickens or pigeons do. It was clear that many vets had no idea that, in most cases, the falcon completely stops feeding and, if it was force-fed, it would soon regurgitate the food. Some vets did not realize the simple fact that falcons only eat uncooked meat! Because of these and many other reasons, I had to do my best and adopt different methods to attract the falconers to bring their falcons to my clinic for treatment. For instance, I was the first and probably the only vet who did not charge dissatisfied falconers for the cost of treatment. My policy was that if my diagnosis and treatment did not completely cure the falcon, there should be no reason for the client to pay. This policy was known to almost all the falconers in *Qatar* and *Saudi Arabia*, and probably other Gulf states too. I simply advertised that, falconers were not obliged to pay for consultations, nor for the treatment and medication, if their falcons did not completely recover. I must say that this kind of policy was really appreciated and accrued credit to me and to my work by all the falconers, and encouraged them to bring their falcons to my clinic, even though most clients took the death of their falcons for granted. However, some falconers were sometimes kind and generous enough to insist that I should charge them to at least cover my expenses for medication. That was a good gesture which I appreciated and will not forget. On the other hand, many other falconers always took advantage of my policy and were unnecessarily complaining that their falcon was still showing some kind of illness, or as they usually said, “*The falcon is not as it was*”, by which they meant that their falcon had not completely recovered. Of course, they were referring to my “*charges only for complete recovery*” policy, and hoping that I would exempt them from paying for the treatment of their falcons. This usually occurred when the falconers brought their falcons to the clinic for their daily treatment, rather than when I had them hospitalized at the clinic. In such situations, I did not have the time or opportunity to properly evaluate the falcon’s recovery. In these cases, the falconer would always describe symptoms which would raise suspicions that the falcon has not fully recovered. “*The falcon is still not eating as well as it did!*”, or “*The*

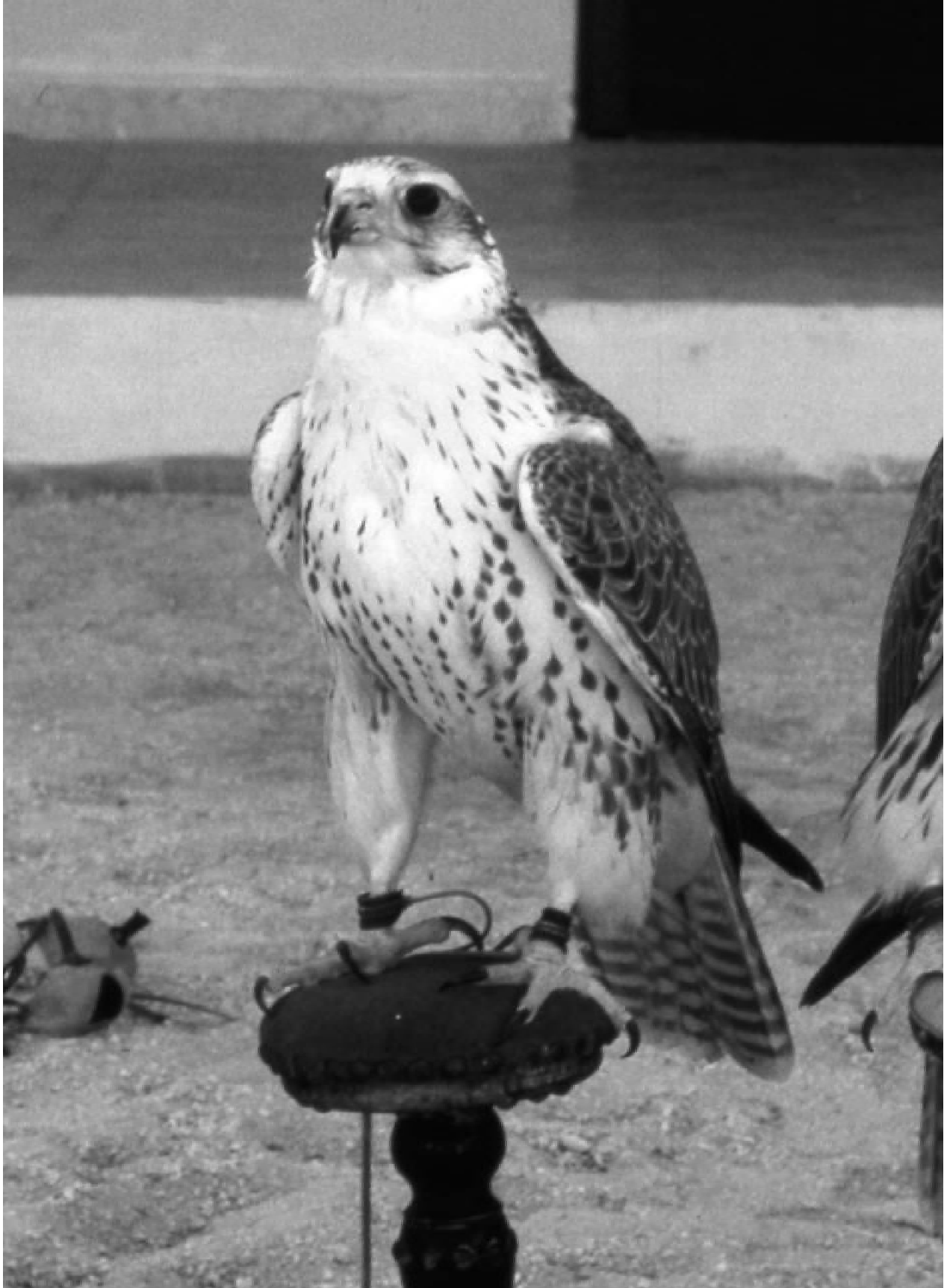
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falcon is showing signs of sleepiness!?", or *"The falcon's mutes are not as clear as they should be!"*. These are only a few examples of claims made by some of the opportunist clients who were ready to avoid telling the truth in the hope of getting free treatment. The policy of not charging the falconers when their falcons do not recover, was so vital to my experience because it gave me the chance to examine far more sick falcons than I was prepared to handle by myself. I was also able to do post mortems on many dead falcons, which died because of different diseases. I had the chance to see different stages and severity of the disease, and to examine the gross pathological lesions and changes in them. However, at the same time, this was at a very high cost both financially and in terms of time. I was constantly trying to keep as many falcons as I could at the clinic so that I could follow up their treatment, and closely watch their response to the treatment. I was also always reluctant to use any new treatment before experimenting on falcons which were donated to my clinic by falconers for experimental purposes. Such falcons were always unfit for hunting due to different disabling problems, such as chronic bumble foot, the loss of important talons due to pox infection, flying disability due to abnormal or lost primaries, severe asthma which makes the falcon completely unfit for flying, and many others. I also advertised in my clinic, welcoming the donation of falcons which were not suitable for falconry. The advert resulted in a good response from many falconers. These experimental falcons were very useful for me to experiment with different medications and to explore the possibilities of their side effects. However, some falconers remained suspicious and were reluctant to donate whatever disabled falcons they had. They believed that those disabled falcons would eventually be treated and could get back to a normal condition and then would be sold as healthy falcons. They could not differentiate the medication which I intended to administer to the experimental falcons to assess the side effects from the medication I would give a sick falcon for normal treatment purposes. They had no idea about the experimental usage of medicines. They believed that giving medicine to any healthy falcon which does not need medication, would certainly kill it. It is a matter of knowledge and understanding, no more.

At last, all I can say in this respect and after all these years of working with falconers, is that I was probably the wrong person to work with them. I accepted every word they claimed which in return was far too stressful for myself due to the unfriendly behaviour they tended to exhibit in many cases. When the time comes for retirement good and beautiful memories will be very scarce compared to the mountains of bitter memories which one never enjoys recalling.



3- A gyr/saker juvenile Hybrid, bred by Leonard Durman-Walters breeding project in Scotland. Most of the Arab falconers were not very familiar with hybrid falcons at that time. Scotland 1994.



INTRODUCTION

It has been more than eighteen years since the publication of my first book on falcons, “**Falcons and Falconry in Qatar**”. During this period, many features of the practice of Arab falconry have changed. The changes in these features were obvious, drastic and quickly prevailing in the society of falconers. Most of the changes are related to the opinions and ideas about the way they practice their sport, and the ways others practice it elsewhere. Some of these changes have already taken place and become well known to Arab falconers for some years now. Many Arab falconers have already adopted modern ways and started to use them, probably in the same way that Western falconers use and practise them. One of the most important aspects of the changes was the acceptance of most average Arab falconers of the use of captive-bred falcons. The captive-bred gyrs and gyr hybrids which were for many years rejected by the Arab falconers, became very commonly carried on the fist and used by them. Also, many falconers started to bear the burden of looking for the equipment which was only used by the Western falconers. This equipment included the scale which is used to watch the weight of the falcon, and, in recent years, the hobby kite, which is used to encourage the gyrs and the hybrids to learn and practice high flying. Electronic telemetry transmitters have been used for many years. They are almost used by every falconer these days. Identification microchips have been used on a limited scale for more than ten years. It is now used by many falconers and mostly for certain valuable falcons. In the Emirates and Qatar, it has been a legal obligation to have a microchip implanted in every falcon. It is one of the requirements needed to allow the movement of falcons across borders, unless the falconer has the status, which enables him to ignore these new legal obligations in this respect. In addition to this, the special permits and licenses are always very common in the Gulf in this respect, and only a few powerful people could enjoy them. The use of these microchips is becoming more common, and the falconers have begun not to worry, as they previously did, about any disadvantages, health hazards or impaired performance which could be caused by them. Many Arab falconers became familiar with what is going on in the world of falconry in the West, although they did not necessarily fully understand it. Many Arab falconers have already built up their own contacts with some Western falcon breeders. They have started to order their captive-bred falcons directly from those breeders, and try to request certain features in the falcons they order. Many Arab falconers have been surfing the websites of the falcon breeders on the Internet recently. They are either seriously looking for captive-bred falcons for themselves, to resell them or, only curiously enjoying the discovery of the different captive falcon breeders. If possible, those people would love to achieve the prestige of obtaining a price list of captive-bred falcons. Some of the European falcon breeding projects have been successful in building a satisfactory reputation in the Arab falconers society. Their names have become recognized by many Arab falconers. Also, their falcons are thought to be guaranteed as good flyers and aggressive hunters.

The seriousness of the attention and care which is paid by the falconers to their falcons have also become increasingly noticeable, especially when it is about the health of the falcons. Several years ago,

Introduction

falconers were always creating different imaginative excuses which they blamed for the ill health of their falcons. They almost always excused their own harsh handling of the falcons as the major cause of their ill health. Those excuses were not always genuine, but, in most cases, were imaginative. They only want to avoid feeling embarrassed about their negligence when they are supposed to be experienced falconers. They used to give priority to their own attempts of treatment by trying their old classical remedies, before they give up and take the falcon to the vet. These days, things in this respect have very much changed, and the term “checking” has become frequently and extensively used by the falconers, even the old conservative ones. Many falconers now exhibit their pride, when they say pompously that they never put their falcons into the moulting rooms before they go and “check” them for the possibility of worm infestation or other infections. Some go further than that, like when they bring their falcons for blood-testing and X-rays even when there are no signs of illness. Certainly, they are still unaware of many of the scientific facts related to the different infections and worm infestations. Nor do they have any idea about what infections these very tiny organisms, like *Bacteria* and *Viruses* can cause; or what they look like; or how infections take place; or how different falcons can present with different symptoms. It will take sometime before many Arab falconers can understand much of the basics of disease causing agents. The reason why might be because many of them do not have the basic education necessary to understand the nature of these organisms because they cannot see them with the naked eye. Some Arab falconers still believe that these organisms, which they cannot see, are figments of the imagination of an ignorant vet. This is why many of them keep saying “*We have been carrying falcons since we were kids, why it is only now we see these names and diseases?!*” I can feel that in the eyes of the Arab falconers, when they are suspicious of something. I would never miss that look, nor misinterpret it for something else. Sometimes, I feel that I should give them the right to think or behave like that, especially when they know some of the intestinal worms like the Cestodes and the Nematodes, which appear in the fecal material of sheep and camels or when they see the Cestodes in the intestine of the *houbaras*, which is very common and have been seen by most falconers. Many are convinced of their belief that, “*A good veterinarian must be able to treat and cure every sick falcon!*” They easily get disappointed when they lose a falcon, no matter how serious its condition. They still adhere to their beliefs like, “*Some of the old expert falconers can do what an experienced veterinarian cannot do!*”. While there is a clear tendency among the younger generation of Arab falconers to accept new developments in veterinary expertise when treating their falcons, many nonsense beliefs still prevail. Once they feel that the treatment of any disease is taking a bit longer than they would like, they will go back to using their old remedies. Branding and different herbal remedies are still used by the Arab falconers. Many of them still believe that they can do miracles. Generally speaking, I found that, after spending more than twenty five years at the core of the Arab falconers society, not very much could suggest that they would positively respond to dramatic changes in their mentality. Many of them still do not like showing their valuable falcons to others, just because of their belief in the power of envy. Many do not want to bring their falcons for treatment in the clinic, because they are worried that they might get infections from other falcons, or from the clinic environment!! Such falconers might leave the mutes of the falcons for weeks in their vehicles, before they cleaned it. They could have a severely infected falcon for several days in the same vehicle with other healthy falcons, before they realize that it had a highly infectious disease!



5- Tapeworms found in the intestine of a Nubian Bustard.
Hawar valley, Sudan 1983.



6- The Northern boundaries of Ruba'a Al-Khali Desert. This is the desert which occupies a major part of the South of the Arabian Peninsula. Saudi Arabia 1984.

7- The desert is the kind of terrain which is always sought by the Arabs for their hunting trip. It provides a great camouflage for all the wild desert birds and mammals. North Western Sudan, November 1983.



Introduction

Astroturf has been very extensively used by almost all the falconers for many years now. Obviously, its role and good effect has been easily understood by the falconers. They can now simply understand and appreciate the logic behind its use, when they are told that the *Astroturf's* surface gives the falcon's feet the chance to be aerated. Since the use of *Astroturf* has become quite common, the incidence of bumble foot has very much been reduced. The incidence of bumble foot in recent years has been reduced to less than 10% of what it was fifteen years ago.

Some falcon breeding projects have been set up, mainly in the *Emirates*. These projects are not breeding falcons for commercial purposes. Yet some of the falcons bred by these projects have been seen in the local falcon markets. Some other breeding projects like the one which was in Saudi Arabia, which was producing for private use, and the falcons produced were said to be hacked, is no longer producing. It will probably take many years before the captive breeding of falcons becomes so common, and its basic cost becomes affordable to every falconer. The harsh climate of the Gulf region especially during the summer months, makes it so important to have the breeding pens air-conditioned, especially during these very hot and humid months. This is probably the reason behind the difficulties that many falconers experience when trying to breed their own falcons.



8- *Astroturf* became very commonly used by Arab falconers as a perching surface for both hunting and moulting season perches. Most of the perches available in the Gulf falcon market are already using the *Astroturf* as a perching surface. There are of course different kinds and qualities, some of them are very tender and soft and do not harm the soles of the falcons' feet. They provide the needed aeration to the soles and are the best to be used. Others are of inferior quality and are mostly used as door stops. They could be very rough and harmful to the soles of the feet, they could be the cause of lacerations and injuries to the soles of the feet. Yet, most of the falconers are unable to recognize which kind is the best quality and should be used as a perching surface. Since *Astroturf* became very commonly used on perches, the number of cases of bumble foot has dramatically been reduced, and when they appear, they do not seem to match the severity of those cases of the early 1980s and 1990s. The perch shown here is surfaced with the best kind of *Astroturf*. The Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia, 2005

THE HISTORY AND LITERATURE OF ARAB HUNTING

We need to refer to the old *Arabian Islamic Manuscripts*, which belong to the *Abbasid* era and the centuries following that time, whenever we want to talk about the history of Arab falconry, or hunting with other raptors. There have been many old manuscripts of those times, which described different aspects of this old sport which was practiced only by the old Arab nobility. One manuscript given the name “*Al-Kafi fi Al-Baizara*”, which means “*All About Falconry*”, was written by *Abdul Rahman bin Muhammad Al-Baladi*, who obviously lived in Iraq during the twelfth century, as he mentions some famous people of that era. The other manuscript is “*Manafi’a Al-Tair wa Ilajat Da’iha*”, which means “*The Uses of Falcons and the Treatment of their Diseases*”, which was written by *Adham bin Muhriz Al-Bahili*, mostly during the reign of *Haroon Al-Rasheed*, from the famous *Abbasid Khalifate (Caliph)*, which was towards the end of the eighth century. The third manuscript is called *Risalat Al-Tarad*, which means “*Treatise of Hunting*”, written by *Ibn Abi Al-Tayib Al-Bakharzi*, who died during the tenth century. This is the first publication of “*Risalat Al-Tarad*”. It only became available to me when my friend Dr. Muhammad Qasim, Ph.D. (Literature), who has studied the literary side of the subject, gave me in 1988 a copy of his study of this manuscript to be used as a reference for my Arabic book on falcons and falconry, which was published on 1992. *Risalat Al-Tarad* is based on poems and beautiful literary descriptions of the importance of hunting to the rulers and aristocrats, as well as preparations for it and the scenes of the hunting trips which used to be arranged by the *Abbasid Khalifate* and Nobility. He also comments on the different habits and features of the different falcons and other raptors which were used by the Arabs in those old days. The descriptions of different hunting scenes greatly resemble the scenes from the hunting parties of modern wealthy falconers.

In the manuscript *Al-Kafi Fi Al-Baizara*, the author mentioned that:

*“ Adham bin Muhriz Al-Bahili, who is an expert in raptors, said:
The first Arab who tamed and trained the saker falcon was
Al-Harith bin Mu’awiyah bin Thawr,
The Noble of Kinda, which was an old city of his time,
One day, he stopped watching a hunter who had fixed a net for hunting sparrows,
When suddenly a saker stooped from the sky to catch the sparrows in the net.
Then it failed in the net, and the sparrow hunter caught it.
When Al-Harith saw the saker, he took it from the hunter to his home,
Tied it and spent days taming it, until the saker became tame,
And started responding whenever Al-Harith threw a piece of meat to it.
The saker started to pay attention, concentrating and flapping whenever it saw a pigeon flying.*

*Then Al-Harith trained the saker to jump on his fist when it saw the meat in his hand.
Then he continued the training until the saker started to respond from a distance.
One day a pigeon was seen flying and Al-Harith released the saker after it,
Then the saker flew after the pigeon in a fast pursuit and caught it.
Another day, a hare was running in the desert when the saker wanted it, and started flapping,
Showing its keen desire to go after the hare. Then, Al-Harith released the saker after the hare,
And the saker stooped at it several times and eventually caught it.
Later on, Al-Harith trained the saker to catch young gazelles.
After that, Al-Harith ordered his people to use the falcons for falconry,
And after him the Arabs started to use the saker falcons.”*

The name *Saker*, did not necessarily mean what it represents today, which is the *Saker falcon*, *Falco cherrug cherrug*. In those early centuries before the Islamic era, it could possibly mean the *Lanner falcon* as well, which is commonly found during winter in the *Arabian Peninsula*, especially on the Eastern and Western shores of the *Red Sea*. In Arabic, the word *Saker* itself means or refer to falcons in general. The name “*Gazelle Saker*” is known by the *Arabs* of the *Northern Arabian Peninsula* and *Iraq* in particular, and it obviously refers to those forms of saker falcon which have nice looking features, like the very pale or *Ashgar saker* (blond). Also it is not clear as to what exactly was meant by “trained the saker to catch young gazelles”, as young gazelles are still too big for saker falcons. Young gazelles are very swift, agile animals and could be as fast as an adult gazelle when they are only a few days old, with very good maneuverability. Therefore it could be that the trained saker falcon was mostly chasing the young gazelle and disturbing its fast running speed by stooping at it, in attacking hits by its talons several times, so that the hunters could reach out and catch the young gazelle. Here, it must be mentioned that, a captive-bred *Gyr falcon* in the *Emirate* was recently shown on the TV courageously chasing a gazelle with great determination. That was really something extraordinary and unbelievable to most falconers, and they would never believe it if they did not see it themselves. That was very much expected from a captive-bred powerful falcon, because these captive-bred falcons have never experienced the danger of



9- An old low quality photo of a saker falcon chasing a houbara. The saker and houbara have been a paramount feature and element of Arab hunting for many years now. This photo has been donated by a friend who is certainly not a good photographer, but a good falconer who enjoys this sport in every way he can.

living in the wild, and therefore they cannot appreciate the amount of damage they could inflict on themselves when they chase prey which are much larger than themselves. On many occasions most captive-bred falcons will chase anything when they are hungry. Every year I hear about captive-bred falcons, mainly gyr hybrids, which have attacked other falcons, and killed and eaten them.

In *Risalat Al-Tarad*, *Al-Bakharzi* mentions descriptions detailing the great interest in hunting which the *Abbasid Khalifate* had. It details how they prepared for their hunting trips which could be lengthy and last for several weeks. The prepara-



10- An old photo of a Saluki hunting dog chasing a hare. Salukis are still used by some young enthusiastic hare hunters. Some very nice, attractive pedigree Salukis are still worth a lot to their owners. However, it will take more time and great effort to bring back the interest and care of these hunting dogs to the standard they were enjoying in the past. In recent years, some pedigree Salukis might be very well looked after by the people who keep them, and they could be getting the best care, but these are definitely rare cases, compared to the past.

11- Some falconers still use their falcons to hunt hares, which are now protected in most Gulf countries. In the past most falconers did not intentionally go hunting for hares. They only released their falcons when they saw them. Many falconers still believe that the hare is not a real challenge to a valuable falcon. Some others believe that it is better to avoid it because its chase harms a good falcon, and that is why they only use the invaluable sakers, peregrines and lanner falcons. These three photos (9, 10, 11) are all old photos, and, by using them, I want to show how Arab falconers are also interested in keeping some recorded memories to enjoy during the times back home when the hunting season and hunting trips are over. Falconry and hunting are always vital subjects in the Arabian Majlis whether in the past or in recent years.



tions were almost as important and costly as a battle. The staff of employees who were involved in the preparation for the hunting trip, was so enormous that their expenditure formed an important section of the budget of *Al-Khizanah* which was the equal to the Ministry of Finance. Those employees included the people who were handling, looking after, taming and training the falcons and hawks at that time, as well as those who were handling the *Saluki* hunting dogs and the *Cheetahs* which were trained and used for hunting by aristocratic Arab hunters. It is mentioned that the Arabs at that time trained *Cheetahs* to sit on horseback while its eyes were covered by a piece of cloth or leather. When we refer to the old manuscripts regarding the cost of the hunting trips of those medieval times, it would appear that the financial cost and effort used was comparatively much more than that of the hunting trips of the twentieth century.

The main Arab native land in which they lived for many centuries, was, and still is, poor terrain for any kind of hunting. However, hunting occupied a distinctive place in the cultural life of the Bedouins, as well as the old Arab urban tribes. Arab literature also placed great importance on both real and mythical tales of hunting. The Arabs also considered hunting in those olden times to be evidence and proof of courage, denoting physical strength and power. Many very famous Arab pre-Islamic poems were clear evidence and proof of this belief. The Arab poets very often used the descriptions of hunting scenes as an introduction to their

long, detailed, descriptive poems. The main subject of the poem itself might not have much to do with hunting, and the poet himself could be someone who was not really known as a keen hunter. *Hamza bin Abdul-Muttalib*, who is one of the many uncles of the *Prophet Muhammad* (p.b.u.h), was known to be very keen hunter, and was hunting on horseback. He was using the old usual weapons like the bow and arrow, and the spear. This is at least what the stories of the pre-Islamic era told us. The old manuscripts, the titles of the most famous of which we have already listed, mentioned many different species of prey which were hunted by the Arabs in the pre-Islamic ages, as well as during the golden ages of the Islamic civilization. Most of those prey were very large animals and birds like, *Gazelles*, *Oryx*, *Ostrich*, *Wild Ass*, *Houbara* and other similar size wild birds like *Cranes*. These were the main animals which have been mentioned in the old manuscripts and the famous old Arab poems as the popularly hunted Arabian creatures both before and during the Islamic era. Later on, after conquering Iraq, Iran and North Africa, the Arabs learnt about new animals which they had not encountered in their true desert terrain before, like the *Lion* and the *Leopard*, although the *Leopard* was native to the mountainous areas of the *Arabian peninsula*. Arab hunters learned ways of hunting these animals from the local people of the newly conquered areas. Diplomatic relations which developed with the Rulers of nearby civilizations brought to their attention new methods of hunting as well as new prey and new raptors that they could take with them for hunting. Links with the *Persian and Roman Empires* also played some role in introducing the *Peregrine falcon* and the *Buzzard* to Arab falconers. It is also said that the *Gyr falcon* or maybe a large size saker falcon from the mountains of Northern *Europe* were sent from time to time to the *Arab Khalfate* and *Rulers* by those who were ruling over those very cold countries and territories.

The Gyr falcon and the large size forms of saker falcon live and breed in the mountainous areas of Europe and Northern Asia, where the Arabs did not at that time have an access to them. The Arabs in those old centuries believed that those falcons which came from those areas, were very rare and could possibly be coming from far and wide in the skies, (*Risalat Al-Tarad*) and (*Al-Kafi fi Al-Baizara*). It was



12- *The joy of the gathering. The chat and jokes have always been an important part of the hunting trip's enjoyment and intimate friendship. It was probably enjoyed by many falconers much more than they enjoy the real hunting.*
Saudi Arabia 1984.

also stated by these manuscripts that, the Arabs knew how to use the Cheetah to hunt the Gazelles, and also they knew how to train it to sit on horseback behind the horseman, while its eyes were covered with a piece of cloth or leather, so that it could not see until the hunter decided to unleash it to pursue its prey.

The archeological remains of the civilizations which preceded the Arabs in the Arabian peninsula in general, and in Iraq in particular, did not leave very much to suggest or to give a clear idea about the significance of hunting to the public during those old civilizations. The remains of the Sumerian, Babylonian, Accadian and Assyrian civilizations of Ancient Iraq provide some clear evidence that hunting was generally practiced for enjoyment by the kings and rulers, and possibly by the aristocracy of those times.



13- Ashurbanipal, the famous Assyrian king, hunting on horseback, using a bow and arrow - a representation of the old hunting nobility.





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Man has always hunted, all over the world, though for different reasons. Originally man hunted simply for survival, for food and this kind of hunting which, I tend to call legitimate hunting, can still be found in some parts of the world nowadays. Man hunted for sport in different parts of the world for thousands of years, especially in the great civilizations of the ancient world millennia ago. Hunting was known and practiced by the *Sumerians* and *Babylonians* of old *Iraq*, as can be seen in many of the etched paintings and artifacts on the buildings and remains of those times. It was known and practiced by the ancient *Persians, Indians, ancient Chinese, Romans and medieval Europeans*. It was also known by the Arabs even before the time of the great civilization of the golden age of *Baghdad*, when most of the *Abbasid Khalifates (Caliphs)* were fond of hunting. In recent years, falconry in particular has expanded in the numbers who practice it, as well as those people who are directly involved in many aspects of the sport, like the captive falcon breeders and falconry furniture makers. Also involved are the producers of many other goods related to falconry, including certain medicines which are produced and developed by a few drug companies to be used for the treatment of falcon diseases. In general, falconry in the last ten years could be considered as a big industry. Although falconry is expanding and flourishing, it is still based and depends entirely on two very vulnerable creatures, the first is the falcon and the second is the poor *Houbara*. While the houbara is the favourite prey of Arab falconers, at the same time its welfare is overlooked and it fails to get due consideration from anybody, including influential people from the countries whose people hunt them or conservation organizations, about its future existence. The breeding of captive-bred falcons has very much improved during the last ten years, and many breeding projects are now supplying thousands of captive-bred falcons to the falcon markets in the Gulf region. These are both pure species and hybrids, and a very high percentage of these captive-bred falcons are now satisfying the ambition and keenness of the Arab falconer for a good hunting falcon. While this is the case with falcons, houbara captive breeding projects have not been making any significant progress during the last ten years. On the contrary many of the houbara's wild habitats, where it once bred during its normal breeding season, have become poor. Some of the former Soviet Republics, which are well known as important breeding habitats for the houbara, have been hosting falconry hunting parties during the breeding season for some years now. This has certainly played a very important role in the decline of the percentage of breeding houbara, which in turn has contributed to the decreased number of houbara.

While falconry has greatly developed in many ways in the modern world, Arab falconers still prefer to practice their sport in the same way they used to do many centuries ago. Although centuries ago, when falconry was practiced by the Arabs, it was not considered to be a sport. Most of those people who had to practice it did so because they needed the prey, whether birds or mammals, hunted by the falcons for

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food. It is very clear that falconry has been passed down over the generations, father to son. An Arab would rarely take it up unless his father or grandfather had practiced it. It can even go to the extent that those who are descendants of certain tribes which are well known for their falconry, would normally try to deter others who might display an interest in falconry if they come from a tribe not recognized by the others as falconers.

Most Gulf Arabs understand that modernization has affected many aspects of their lives, but this understanding is very much different when the subject is falcons and falconry. The Arab falconer will almost always tend to hark back to the inherited traditions of his ancestors. It is surprising how some of them who are reasonably educated, and living a modern life, can never forget the myths that have been passed down. More surprisingly, some of them will go so far to argue about subjects related to modern veterinary understanding of the causes of diseases and their treatment, especially when they know just a little outline about something which they could have read in a newspaper or heard on the TV or Radio. On the other hand it is really hard to fathom how some falconers think that a damaged organ can be replaced. Many actually approached me on many occasions about the possibility of replacing a damaged leg or wing or eye!! This might have been because, ever since I opened my practice in Qatar, I encouraged them to open their minds to modern scientific methods and treatments.

Arab falconers are still fond of the arid nature of their habitat, which is mostly a true desert environment. It is the open land, clear sky and horizon that they love. It does not matter that much where in the world the true desert may be, the Arab Bedouins will love it as long as it has similar features to their native desert in the Arabian peninsula. The true Arab Bedouin has a phenomenal sense of direction, and he will be able to find his way towards the camp in a vast open desert, even if it was his first visit to the area. His incredible ability to interpret the footprints or the vehicle's tyre prints on the soft moving sand of the desert has impressed me, since my first experience in the true desert in the Great Sahara of the Northern Sudan, on a hunting trip there when we were looking for a very rare elusive species of antelope



15- Some of the vehicles which were participating in the hunting trip searching for the Addax in the Great Sahara, North Western of Sudan 1983.

called the *Addax*. My first hunting trip to this desert, the Hawar Valley of Northern Sudan, which is one of the most isolated lands in the world, was in December 1983. This valley is about 1200 Km north west of the Sudanese capital, *Khartoum*. We were a group of twenty-three persons accompanied by eight armed soldiers from the Sudanese Wildlife Protection Forces. They were supposed to be escorting us and leading us to the area to which we are heading, but obviously only one old man out of them, *Abdullah*, had ever been to that area before and that was only once during the early 1950s. He was escorting a British gentleman who went to there to see the Addax and shoot one! The others had never been there, nor did they know much about what could we find there or if there were still Addax in that area. In addition to them, we were accompanied by twelve others who were local Sudanese labourers, employed to accompany the lorries which were rented from the local market. Those lorries were rented to transport the petrol and water barrels which we needed for the whole period of the trip, in case we could not find any water on our way. We knew that there was no chance to get fuel on our way for the different vehicles we had with us. Those lorries were also carrying the other goods we needed for the trip like the food, tents, animal boxes and other necessities. We were using three modern four wheel drive vehicles, five medium size trucks and four heavy duty lorries. It took us seven days averaging eight to ten hours driving daily to reach the Hawar valley. The way to the valley was unpaved and very hard going in many parts of it especially with the heavy vehicles. Our heavy lorries very often got their wheels stuck in the soft sand and needed to have the local labourers dig the sand out in front of the sinking tyres, and



16– A snake in the desert is a very common scene. North Western Sudan 1983.



17– Driving on the un-constructed desert roads, heading to the Hawar valley, 1200 Km north west of Khartoum, Sudan. It took almost seven days to get to the destination, which was a big tree in the valley, I still cannot imagine how the navigator of the trip, Rashid Al-Umani, with only his eyes and memory of the previous year, could find that tree in that vast desert. It was a challenge he took on himself to get to the same tree which was last year's camp. Sudan, 1983.



18- The way to Hawar valley was full of trouble like this. It was very common to have the vehicles' tires sink in the sand whenever the drivers went astray, and did not follow the tread marks of the vehicles in front. Sudan, 1983.

then they put either a piece of wood or a sheet of metal in front of the tyre so that the friction of the tyre enabled the lorry's wheels get a grip on the sand, and avoid being trapped in the soft sand. We left the capital Khartoum before noon and we were maybe less than fifty kilometers on the way when the clear signs and evidence of drought started to become more and more evident everywhere around. The desert began to show itself with sandy winds, dry and dead trees, bushes and acacias. Many of these old dead trees and bushes had been uprooted because of the wind and storms, and turned upside down, and stabilized on their upper branches, with the remnants of their roots up in the sky. That was a very dreadful scene to me, but was taken for granted by most of the people in our company who seemed to see nothing really worth noticing, and went on as if they were at home. They did not pay atten-

*19 & 20- The Nubian Bustard, *Neotis Nuba*. This bustard was shot in the wing so that it could be used for training the falcons. This attempt failed because the bustard died soon after it fell and hit the ground. Five adult tapeworms were found in the intestine of this bustard.*





21- Sunset, clear sky, horizon and the plain land, the no man's land of nowhere, yet I always felt I was not far from anything man would need! I could reach out for many things, but only in my mind. It was the cream of imagination which is created by the fascinating desert and the absolute space. Hawar Valley, North Western Sudan 1983.

*The second attempt was successful in saving the life of the bustard, but the falcons were scared and did not attack it, which was obviously because of its large size.
Hawar Valley, Sudan, December 1983.*



tion to many things I found unusual. They behaved as if they were wandering in the desert of the Arabian peninsula not far from their homeland. They were obviously familiar with almost every creature moving on the sand, like small desert lizards, snakes, scorpions, insects, and every bird flying in the sky, though there were very few. It was a totally new experience, which I will never forget. Since that experience, I have always believed that the desert is really the best place when you want no limitation on your imagination. It is only the horizon which limits your eyesight or your imagination would certainly grow bigger. You never feel far from anything, no matter how far from the nearest civilization you are, you will always feel that everything is just a few steps beyond the horizon, and the horizon is very close, therefore you feel everything is close. You feel as if you can see everything you imagine just a

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22– The arrival at the main camp “Inna” . The unloading and arranging of the essential equipment which would be used daily, like the bedding, dry and canned food stuff and cooking equipment. Some other sets of cooking equipment and dry food stuff would be set aside to be taken by a small group traveling ahead in search of the quest and needing to camp “Izba” for one or two nights away from the main camp. Hawar Valley, North Western Sudan, 1983.

few steps beyond the close horizon.. You can hear all the different sounds on earth as if they are very close, knocking at your ear drums, although there is nothing but silence and sand and fresh air around you. It is where you can really hear the sound of un-obstructed complete silence around you. It is the magic of the desert where the old creative Arab poets have set free their imaginations in creating the marvelous pictures and descriptions of scenes which they probably did not see themselves in reality.

One of the peculiarities of Arab falconers is their desire to save their prey whenever they can. When they hunt the houbara, they will always do the best they can to save it alive if the circumstances permit. Saving the houbara alive is either to use it later for training another newly trained falcon, or to be kept with other houbaras or wild birds and animals in a private collection of wild birds and animals. Many falconers also have a fondness for the *Stone Curlew*, which is usually their second most favourite prey. The stone curlew is also like the houbara, a migrant bird which visits the Arabian peninsula during the month of October and will mostly appear in the area as a more common visitor than the houbara. It also reappears in the Arabian peninsula later in the season during the month of March when it returns from those areas further south west on its way further north east where it normally stays for breeding. Many falconers are very keen to hunt for the stone curlew because they mostly appear in groups of more than three or four birds, and they rarely need a very keen hunting falcon to hunt for them. The size of the stone curlew is mostly smaller than most of the falcons used by Arab falconers, which obviously makes it easier as a prey. Also they rarely cause the falcon to exhaust itself while chasing them, although they



23- Soon after arrival, the fire will be set out to make tea and coffee, and the falconers will take their falcons out of the cars and start checking them and their feathers in particular. During a long trip on unpaved road, the falcons would certainly feel uncomfortable, because of the uneven or jerky movements of the car, and therefore, some falcons would be bating every now and then, which could cause damage to the primaries, which are of the highest concern to the falconer. All the falcons are expected to be exhausted after a long trip in the car. Hawar Valley, Sudan December 1983.

are very well known as very agile birds with excellent manoeuvrability. Yet they do not fight back or display aggression like the houbara does when it is attacked by the falcon. Due to the aforementioned reasons, it is not unusual for an average sized falcon to be released quite a few times after several stone curlews in the same day, if there was an abundance of them in the area. The Arab falconer can use a female or male *Lanner* or *Lagger* falcon, or a male of any of the peregrine falcon subspecies. These different small sized falcons are mostly sought after by falconers to hunt the stone curlew. During recent years, it is becoming noticeable that many falconers are looking for hybrid male falcons like the *gyr/peregrine* or *gyr/saker* for hunting the stone curlew. The final prey, which probably comes at the bottom of the list of prey generally sought after by Arab falconers, is the *Hare*. Most Arab falconers do not care for the hare as a prey and they can rarely be bothered to hunt it while in a hunting party. Nor are they keen to bid for a falcon, which is known as successful in hunting the hare, if it has not been successful in hunting the houbara and the stone curlew. Generally, Arab falconers do not consider the hare as a really challenging prey, and many falconers believe that the hare does not deserve a valuable, good hunting and nice looking falcon to be released after it. They also do not feel confident and comfortable when sometimes because of lack of prey, to release a good falcon after a hare. This is because most of them believe that the hare tends to cause bad accidents, and could probably cause severe damage to the falcon's feet and feathers. This is why, whenever they have a falcon, which went sick or was not feeling well soon after being released after the hare, they tend to blame the hare for the falcon's sickness. Also many of them believe that the meat of the hare is not always a good food to feed the falcon. Top quality

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and nice looking falcons, like the white, pale or dark saker falcons, are rarely released after the hare. Usually those who hunt the hare, only use average or below average falcons, like the common sakers which are mostly called *Wakri Al-Harar*, or the *Gurmoosha*, or the female lanner falcons. *Saluki* hunting dogs, although not commonly used for many years now, are important for hunting the hare. Salukis are mostly, if not solely, used by young falconers or young hunters who are not falconers and only interested in hunting hares. Young falconers sometimes hunt for the *Sea Gulls* when it is outside the real hunting season, probably because there are no other prey available. They will mostly use peregrines or large hybrid falcons. Also, they like to chase and hunt the few migrating *Ducks* which are not so common, especially during the last weeks of the hunting season when there are no more houbaras or stone curlews. Recently, many young falconers became interested in the use of racing pigeons as prey for peregrine falcons and the male hybrids, at the end of the hunting season. However, releasing the falcons after the racing pigeons can lead to the loss of the falcons because they can rarely fly as fast as racing pigeons, even if they were juvenile peregrines, or peregrine hybrids. In many cases the falcon will keep on chasing the pigeon until both of them disappear in the distance. Sometimes, some falconers try to avoid losing their falcon and therefore they pluck off some of the pigeon's primary wing feathers to reduce its ability to fly at its usual flying speed. This is certainly giving the falcon a better chance to capture it. Releasing racing pigeons as prey for the falcons is becoming a more common practice for many falconers even the old conservative ones. They simply consider it as a very reliable way to improve the flying performance and fitness of the falcon. Also,

it is obviously good at encouraging the falcons to fly higher than they normally fly, especially in the cases of the captive-bred gyrs and gyr hybrids, which, in many cases, do not fly as high as needed by Arab falconers. In some of the Gulf countries, like the *Emirates* it has been well known through the brotherhood of falconers that a very luxurious car, exceeding US \$ 60,000 in value, has been offered as a prize for the falcon which could capture a racing pigeon, which would obviously be a very fast flying one. Many falcons have apparently been lost while accepting this challenge.

Those who have private collections of wild birds and animals always try to keep the houbara as well the other captured prey alive, whenever they can. They keep them in collections of wild birds and mammals which are native to the Ara-

24- *Lanners* are used early in the season for different reasons. They are of less monetary value and, therefore, the falconer does not care that much if they are exhausted because of the heat early in the season. They also appear on the market much earlier than other highly valuable falcon every year. These falcons seem to be doing well for casual falconers, but are never carried by wealthy falconers, no matter how good and skilful they might be.

Doha, Qatar 1989



bian desert. Keeping a collection of wild birds and animals is becoming quite prestigious in the society of most falconers. These collections are greatly enjoyed by their owners during the period out of the hunting season. Some of these collections are very well looked after and the habitat in which they are kept can sometimes greatly resemble their natural habitat in which these prey naturally live. Others quite simply do not have anything in common with any of the natural peculiarities of their native habitats. I have seen some houbaras which have been kept for many years in gardens, with domestic chickens and other wild and domestic fowls and birds like *Pea fowls*, *Guinea fowls*, *Turkey* and *Pheasants*. Others were even kept in more stressful conditions, which did not leave any chance for these very shy wild birds to relax, like when they are kept in



25- A green saker falcon, which is usually considered an average saker and mostly comes with the other forms of average sakers early in the season. Many falconers trust that this average saker could be a skilful hunter, and could exceed in its skill and performance the very valuable nice looking sakers. Therefore, in many cases, they do not hesitate to bid for them, especially if they are a good size, like this one in the photo. Doha, Qatar 1993.

26- Houbaras and other wild birds like the Stone Curlew and, sometimes, the Sand Grouse are usually kept in aviaries of different designs and sizes. Some are of small to medium sizes and they could be constructed in domestic gardens so that they can be enjoyed by the owner as well as his family all the times. Some others are very big and provide complete privacy for shy birds like the houbara. Al-Wabra, Qatar 1983.



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very small cages or rooms where they have little chance to enjoy the sunshine, (Fig. 27).



27- These houbaras were transported under very stressful conditions from Pakistan. After their arrival, they will be kept for sometime in this kind of improper stressful environment, until they are sold to the final customer who would mostly use them to train the untrained falcons. Sometimes, if they are lucky they will end up in an aviary with other different birds to spend the rest of their lives in captivity.

Doha, Qatar 1993



28- Tens of houbaras arrived dead at the airport of Doha, to which they have been shipped from Pakistan. Many of the shipments could end up in a catastrophically like this because these houbaras were smuggled in very small compact cages used to export different species of domestic fowls to the Gulf markets. Such crates do not match the least requirement for the shipment of live birds, like proper ventilation. These improper and inhumane shipping practices continued for some time during the mid-1980s to the mid-1990s.

Doha, Qatar 1994.



29- Dead houbaras carried by the falcon traders who received them from the Pakistani trader. These are the houbaras which were found dead on arrival shown in the previous photograph. They could only be used for making lures out of their wings. Some of the wings have already been cut. The houbara trappers in Pakistan use different ways to trap these alive and in these big numbers. Late in the 1990s some people in Iraq started to trap houbaras and try to smuggle them into the Gulf countries. Now almost all the Gulf countries ban the importation of live houbaras.

Doha, Qatar 1994.

The Arabs were the first people who used the saker falcon for hunting. In the book **Al-Kafi fi Al-Baizara**, it says:

*“The Arabs are the first people who used the saker falcon for hunting,
and they trained it to hunt the gazelle.
Bahram bin Sabour, the Chosroe of Persia has heard about this,
and for this reason he sent a messenger to Nasr bin Khuzaimah the noble of the peninsula,
asking to send him some of his sakers,
Nasr bin Khuzaimah sent to the Chosroe all what he had of trained sakers.
When the Chosroe saw those sakers hunting the gazelles and the hares,
he became fascinated by them.
Then he decided to use them,
and showed the Persians how these sakers are better than the peregrines.”*

Apparently from this and other old manuscripts, we can see that the Persians did not use sakers until the time of this story. One can easily imagine how valuable the trained hunting falcon was to the Bedouin in those times. It enabled the Bedouins who were traveling in the arid desert the chance to taste the meat of desert birds like the houbara which he could never have dreamed of without having his falcon with him. Things in this respect have not changed that much until very recently. Until the middle of the twentieth century, the Bedouins of the Arabian peninsula including the Gulf countries and Iraq, were keen to keep a falcon, not for fun or to enjoy the luxury of hunting, but to be able to enjoy the luxury of eating meat in the very arid desert environment, although all the Bedouins do keep camels, goats and sheep, but these are rarely used for food on a regular or daily basis. They mostly kept them for their products and for special occasions. The use of guns for hunting wild birds, hares or gazelles is very limited and not very rewarding, since it is impractical to get close to the targeted prey, whether it is a bird or mammal. This is because of the nature of the desert which is bare and open, and the hunter cannot easily find camouflage to outwit the prey and to get close enough to have a good chance for shooting. This is in addition to the fact that the shotguns available to desert people in those days were not as high performance as necessary for an accurate sharp shot from a distance.

The Arabs did not know the peregrine as a hunting falcon, until they developed good relations with neighboring civilizations like the Romans and the Persians. It is said in **Al-Kafi fi Al-Baizara**:

*“The kings of the Romans were also the first people who used the peregrine falcons in hunting, and no one has ever preceded them.
It was said that,
one day, one of the Roman kings saw a flying peregrine which stooped at a water bird,
and raised in the sky to stoop again, and did that several times.
The Roman king said: This is a bird of prey,
and ordered his fellows to make a trap to capture it alive.
They did that, and they trained the falcon afterwards, and started hunting with it.
Saeed bin Ufair said that he heard from Hashim saying:

Constantine the king of the Romans,
one day while he was wandering in a prairie between the sea and the Gulf,
saw a peregrine stooping at a water bird.
He loved that scene and ordered the capture of that bird.
When the bird was captured, he ordered it to be trained for hunting.”*

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*Constantine was the first one to use the peregrine for hunting,
and when he saw that prairie and liked it,
he ordered the founding of a city in the prairie and called it after his name,
and that city is now known as Constantinople.”.*

This story sounds like a fairy tale, like most of the old stories when the people who tell them embellish them with exaggeration, and in many cases imaginative weird things, to attract the attention of the readers and listeners. As always human beings were, and obviously still are, fond of myths and fairy tales. Therefore although much of the detail of these stories might be exaggerated or false, they are based on a kernel of truth, which is, in the case of the aforementioned story, that Constantine was the first one who used the peregrine falcon for hunting in the ancient world.

Although the Arabs were familiar with the peregrine and the goshawk and have used them for hunting, they have preferred to use the saker falcon for many centuries. They knew that, with the exception of flying speed, sakers are stronger and their characters are more admirable than the peregrines. Arab falconers consider the falcon to be a respected and very much appreciated gift. Wealthy falconers usually send falcons to their relatives and friends at the beginning of the hunting season. In other cases and with certain people, it is expected that those who have received falcons as a gift will themselves reciprocate and send other falcons in return for those they have already received. These falcons sent as gifts are usually newly caught passages or haggard falcons, and their value entirely depends on how close and how rich the relative or friend was. When a wild, newly caught falcon is sent as a gift, its ability to hunt cannot be questioned, because no one has seen its performance in hunting. When an adult captive falcon is to be sent as a gift, it has to be well known and approved as a good hunting falcon, otherwise its value



30– Falconry is practiced by so many people of different living standards and ages in the Gulf countries. Abdullah, who is Kuwaiti and was only six years old at the time of this photo, is seriously involved in falconry. He helps his father to carry his falcons, and joins him on his short term hunting trips whenever possible. He is confidently carrying and hooding a large one year adult saker. Photographed here at The Eastern Region Falcon Clinic when his father brought his group of falcons for a check-up, Al-Khobar, Saudi Arabia, March 2005.

will not be much appreciated. During the hunting season, if a falconer loses his falcon while hunting or because of a fatal disease and does not have another reliable hunting falcon, he will usually get another one from a relative or a friend as a gift. This is an old tradition and common between Arab falconers. Sometimes, when a falconer wants to go for a hunting trip away from home and, does not have a reliable hunting falcon, he could ask any of his close friends if he could borrow one of their good hunting falcons, to take it with him for hunting and, then return it to them when coming back from the hunting trip. There is a misunderstanding in the minds of many Western falconers, especially those who have never been to Arab countries where falconry is common, and those who have little if any idea about Arab traditions related to the sport of falconry. They obviously think that Arab falconers are all very wealthy and always willing to spend fortunes on this sport. Apparently, this is partly because they have heard about the very high prices paid for some rare falcons, and possibly have seen films or photographs showing how big the groups of hunters could be, and the obvious high cost of preparations for such hunting trips. To clear up this misunderstanding, we should always remember that falconry is the sport of almost every Gulf Arab. People who practice falconry could be from fourteen to even more than eighty years old. I know some elderly falconers who can hardly walk, whose eyesight is failing, which prevents them from examining and discovering their falcons' damaged feathers. Some due to health reasons cannot go hunting, but they are happy just to keep one falcon or maybe more at home and let one of their sons or grandsons tame and train the falcon, and possibly even take it for hunting for days or weeks, and return with stories about what did the falcons did, whether good or bad. I know one of my friends who is a middle-aged Sheikh, is a very busy businessman and a very keen falconer at the same time, but he cannot find the time to go for the daily late afternoon call of the falcons to the lure. Instead his companions and servants, who know how to handle the falcons, are in charge of this daily practice and assignment. Later, in the evening, when they come back from the "Call to the Lure", and when he is relaxing, he will ask them



31- Ali bin Masoud is one of the hundreds of people who were brought up with falcons. He maintained a keen interest in falconry by looking after and handling groups of falcons every hunting season. The falcons belong to the Master who only wanted him to spend the two months of management and care, until all the falcons were taken for the hunting trip, when his work is considered to be over. Doha, October 1983.

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about every detail of what they did with the falcons, and how each falcon behaved. He also orders them to take the falcons, when they are ready, to the nearby desert for hunting. Richer people, who have many falcons and falconers looking after them, do not waste their money on unnecessary things, like buying so many falcons, or more than they or their companions can handle and need. They do not employ people without previously knowing them to be either good falconers or good desert hunting guides, and when they employ such people, they consider them as companions, rather than only falconers, and therefore, they expect those people to do whatever they can do to assist their master when there is a need for assistance. It is almost the same even when it is out of the hunting season and when the assignment has nothing to do with falconry. There is no real contract of employment in the normal sense of the word, nothing is signed, nor there is a limit of time or working hours. There is no clear idea of what is exactly required from the employee, nor is there is a definite agreement between both parties. What happens is that when a sheikh or wealthy person needs the help of someone for what might be considered either a full time or part time commitment, he will be looking for someone who possesses the characteristics which he enjoys and the ability he needs. He will then ask him if he can accompany him on his falconry trip, and will probably explain what kind of assignment he intends to give him. Payment will not be discussed, but an average will be expected by the employee from his previous experience with other people and probably from what he has heard about how generous this new master/employer could be. When payment time comes it will be left for the master to decide how much his man deserves, and it will appear to each other, if both of them are happy with this unwritten gentleman's agreement. In addition to the usual payment, there are expected to be some bonuses from time to time depending on how generous the master is, and how useful and important the newly employed fellow has been for his master. The bonuses (Sharha) could be in the form of a vehicle, a falcon or a camel if the master and the employee are both interested in camels, or any other thing of monetary value expected to be of interest to the employee. Sometimes when the master is busy and does not have the chance to find a suitable employee, he will usually appoint the head of the companions who are working for him, or somebody else he trusts to start looking for someone who could fill the post. The post might in many cases only be as a part-time job when the new employee is only expected to attend from the beginning of the hunting season and will



*32-The genuine, close relations between the people who participate in a hunting trip is very important for the general outcome of it. It is not easy to imagine a small group of people to choosing to spend days in an isolated desert like this Libyan Sahara without having much in common. Here, during mid-day, they are trying to avoid the burning sunshine by taking shelter in the shade of this small Jeep, which is their only means of crossing the desert where many of the unexploded mines of the Second World War still lie buried.
Libyan Sahara, 1988.*

leave at its end. It is not difficult to find many people to choose between and see who suits the job better in the Gulf because there are many people who are known to possess these different qualifying characteristics. These jobs are mostly given to those who are either previously and personally known by the master, his relatives, or those who are known by one of the other permanent companions and recommended by them. The master would have been expected to take care of such people anyway, even if it was not because he needed them for falconry. This is because of the complex web of interpersonal relationships in Gulf society. Therefore, falconry cannot be considered a real permanent job as much as a skill to be rewarded by wealthy people who need the services of these skillful people. I personally believe that hunting trips, which are basically organized to spend some time enjoying the nature of the desert, as well as falconry, play a very important role in the social life and, to a certain extent, the economic life of the average people of the Gulf countries where falconry is commonly practiced. It must be said that an important aspect of the general policy of the Gulf countries is really to pay attention to the improvement of the standard of living of the common people. Yes, the very wealthy people spend fortunes on these hunting trips, but it is mostly their relatives and the local people who get the benefits.



33- Pale juvenile sakers are generally very much appreciated by Arab falconers. This appreciation is mainly due to their rarity and attractiveness. The rest of its features and characteristics, which might be commented on, are probably related to the Arab falconers' wish to embellish the features of something they love and appreciate. Doha, Qatar 1988.

Money that is spent to provide everything needed for the hunting trip would certainly, directly or indirectly, benefit the standard of living of many people and their families. Paying high prices for some unusual falcons is almost a kind of reward to the person who is, in most cases, a middle-man in the falconry trading business, and if ever it happened that all the falcons exhibited the same external features and detailed characters, like other wild birds, I would certainly believe that their prices would never be more than the price paid for a captive-bred female peregrine in any of the Western countries. Money which is spent on purchasing vehicles, goods and every item related to hunting trips and the rewards given to the falconers and many other participants in the hunting trip, would certainly improve to some extent the vitality and movement of the economic life of at least those who participate in the hunting trip. The amount paid as a price for any good looking falcon when it is presented by someone who is a foreign trader, would never reach the amount paid when the one who presents the falcon is a national or a close friend. The time spent on the hunting trip is, for many wealthy falconers, the only time that is

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deserving of having money spent on it. Even those who have very limited expenses otherwise, and who believe that hunting should be an integral activity in everybody's life, also believe that, there is nothing in the field of enjoyment and leisure, which would be more deserving of spending money than hunting trips. It has always surprised me when I see so many people who seem to have nothing more to enjoy than the release of a hunting falcon to pursue a houbara, no matter how much enjoyment they could have by using only part of a hunting trip's expenditure!!

Arab falconry has its own peculiarities which we do not see in falconry elsewhere. They are as follows:

1- The falcons which are most loved and kept by an Arab falconer are usually the juveniles (passage) which are trapped from the wild. These are usually about six months of age. Presumably more juvenile falcons fall into the traps of the falcon hunters because of their lack of experience. Immature falcons are admired by Arab falconers for their comparatively high speed of flight. This is completely true in the



*34- A pale haggard female saker falcon. This falcon is showing some signs of an old pox scar on its cere and extending a bit on to the base of its upper beak. It is also tamer than usual for a newly trapped haggard falcon. This is interpreted by the Arab falconer that such a falcon has already been in captivity for some time, probably from the previous year. Arab falconers usually call a falcon like this "Tair Arab" which means "An Arab Falcon", but they mean "People" by the word "Arab" in this phrase. If it was true that this falcon had been in captivity sometime before it was trapped this time, then this would be considered as a credit to the falcon, simply because falconers would consider that such a falcon has been lost in pursuit of a houbara, and then migrated to its original habitat to live a full moulting season and be trapped again the next year! This could be completely true, but it would certainly not be noticed and given this credit unless it was a pale saker falcon.
Doha, Qatar 1992.*

35- The Peregrine falcon has earned great admiration from falconers all over the Gulf countries. Its role and importance for falconers in Qatar and Bahrain was more pronounced than the other Gulf states. Since the 1950s or even before, it was appreciated and probably the favourite falcon of the old falconers of Qatar and Bahrain. They were the most knowledgeable falconers who know how to handle and take care of the peregrines, and they knew how sensitive health wise it could be. It is the only falcon which maintains the strange feelings of a keen falconer between his ambition to obtain it, and the hope to get rid of it soon after the end of the hunting season. This is due to the high incidence of health problems it exhibits. Here, this photo is showing the moments of glory and feelings of confidence the falconer experiences when releasing his adult peregrine to chase a houbara. He is fully confident that the houbara will return to his hands a few minutes later.
Pakistan, 1986.



case of juvenile peregrines which would normally earn prices in excess of double that paid for adult wild caught peregrines (haggard). However, this does not always hold true for sakers as the Gulf Arabs are attracted to the appearance of the saker falcon, so there will be no such unexpected discrepancy between the wild caught adult and juvenile. The value which is given to certain falcons that have been caught from the wild, whose hunting skill and performance is unknown, is entirely dependent on the external features of that falcon. However, other factors are important, like the time when the falcon was exhibited for sale, and if it was the beginning or towards the end of the hunting season. Wild caught adult sakers of two to three years of age are very much admired by falconers in certain Gulf countries like Saudi Arabia, especially when they are pale, blond nice looking sakers.

2- The falcon which will be kept for the next hunting season is the one which displayed recognizable skill in hunting the Houbara Bustard, *Chlamydotis undulata*, which is the favourite prey of Arab falcon-



*36- The houbara has just taken off after sensing the danger of the hunters' presence. This is the normal behaviour of houbaras which inhabit a comparatively rich land which enjoys a good rainy season and more people and hunters are traveling through it. The houbaras which live in more arid areas could be more easy to approach.
Saudi Arabia 1986.*

ers. Arab falconers are not so keen to keep falcons which were unsuccessful in hunting the houbara, even though they may have been successful in hunting other prey. In the past, and maybe till the late 1960s and early 1970s, if those falcons were not very valuable, they will be released back into the wild without any hesitation. This is because the falconers will hardly be likely to find anyone who would pay for them. Many Arab falconers claim that their previous experience with falcons enables them to predict a falcon's chances as a good hunter, and whether it deserves to be kept for the next hunting season to give it another chance and try again. But normally they rarely hesitate in their decision to give up a falcon which has frequently failed when challenging a houbara. There are some cases which help save a falcon even when it did not perform well as a good houbara hunter. These are like, when the falcon did not have a chance to realize that the houbara is a good and tasty prey as many Arab falconers believe, or when the falcon did not have enough time to be tamed and trained and get used to its new life in captivity. Another reason which could be considered as an excuse for the falcon's lack of success in hunting in its first year in captivity, would be when the houbaras available in the hunting area are either too strong fliers, swift, very shy and fearful and fly off immediately when they see the group of hunters approaching in their vehicles. If the houbara flies off from a distance, it will not give the falcon a good enough chance to catch up and reach it if it was released. This is mostly the case with the houbaras in the northern parts of the *Arabian peninsula* and *Iraq*. But, this last excuse is only accepted in the case of sakers and not peregrines, because peregrines are well-known for their high speed of flying, and normally should be much faster than the houbara. If the falcon was trained by someone who is not very well known as a good falcon trainer, then this could help in excusing the failed falcon, and its poor perform-

37- The Sinjari saker falcon is the darkest form of all saker falcons. Most of the Sinjari sakers come from the falcon markets of Pakistan. However, they could be trapped elsewhere like Mongolia and China. They have been smuggled from these countries into Pakistan for so many years before the Arab falcon traders started to go themselves to these countries. The Sinjari falcon is probably the falcon that enjoys the most varied and exaggerated stories of performance, behaviour, affection and of other attributes related to its shape, look and origin. This juvenile Sinjari was exhibited for sale in the Pakistani falcon market in 1984. I could not follow the news of the performance of this falcon and could not see it as an adult. Photographed in Doha, Qatar 1988.



ance would be attributed mostly to its bad or unsuitable training and trainer, and will then be given more time and more chance to prove itself as a good hunter. Arab falconers have told many stories and fairytales, which always aim to elaborate and demonstrate the differences between the skill of different falconers themselves. They also want to express the direct effect of the different falconers' experience on falcon performance, and how some falcons, which were known as very keen and successful hunters, but failed to display the least acceptable standard of keenness when they went to be carried and handled by other falconers and vice versa. I have heard so many stories which were supposed to have happened recently and during the last few decades. They are meant to elaborate an issue in Arab falconry which is always a vital matter for argument between Arab falconers. It is not our main aim here to go through these stories, since they have been retold many times and the falconers' exaggerated tales about hunting is very obvious. I usually forget these stories very easily, because I tend not to trust most of them. Simi-

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larily many of them have been told to me by the falconers when I am busy, like when I am mending their falcon's broken feathers while the falconer stands on the other side of the operating table, and has nothing to do but watch my work and tell me whatever news and stories he has. However, this is far better than when he raises different questions about other topics, not necessarily about falconry. The only story which I heard more than twenty years ago, is one which was told to me by different old people who obviously heard it from their ancestors, and although it has been told by different people with some variations, the gist of the story has remained the same. This fairytale describes a very good looking black *Sinjari* saker falcon, which is known as a very rare falcon and only a few, if any, come to the falcon market every year. This falcon came into the possession of an Arab Sheikh who was very keen on good looking and well performing falcons. Then the falcon was tamed and trained by one of the Sheikh's falconers, and was trained to a remarkable standard of hunting, and highly admirable performance. News of this falcon was passed between the falconers, and reached another Sheikh who was obviously a friend of the owner of this famous falcon. This Sheikh expressed to his companions only his wish and interest in seeing this *Sinjari* falcon to watch its performance. This expressed wish, as usual, soon reached the Sheikh who owned the falcon, and, as is normal behavior for wealthy Arab Sheikhs and falconers, the Sheikh who owned this falcon as soon as he had heard about the interest of his friend, sent the falcon to him as a gift. Then the falcon was taken by its new Sheikh owner on a hunting trip with many other falcons. A new falconer, who was well known as a good falcon handler and trainer, was appointed to be the handler and trainer of this *Sinjari* falcon. When this falcon was released to pursue a houbara for the first time to be seen by its new owner, obviously it did not display the performance that was expected from it, compared to what had already been heard about it. Then, after that, it happened several times, and the falcon failed to show the expected interest in the houbara as a prey, which is something that falconers do not



38- The outer Majlis, a tent and falconers with their falcons or the Master falcons which are in this photo. The chat and stories concern different topics but they are mainly falcon-related. It is here where the new falconers get their training and experience, and where they will be tested by the Master or the others in charge, to see how well they could fit in with the other falconers. Doha, Qatar 1988.

like and mostly could not do much about it, except trying the *Shanather*, which is the *Ammonium salt* used to make the falcon regurgitate the fat lining of the stomach, and to bring its condition to a better sharpness and keenness on hunting. But this did not work, and the very keen famous Sinjari hunter became a miserable looking falcon, and eventually ended up left in a tent in the falconers' main camp. The falconers obviously considered it to be a failure as a falcon, which was not worth being given the chance to hunt again. Every morning when the falconers went hunting, looking for the houbara, they all thought that there had been too much exaggeration about how good that Sinjari falcon was at hunting. They probably thought it was only its good looks that had led to the exaggeration, which is not always untrue in the Arab falconry society. The terrible disappointing news of the Sinjari and how it had ended up as an unworthy falcon reached the first owner of the Sinjari. It also reached the falconer who had originally looked after, handled and trained it. They were both sad to hear that news, and both believed that something wrong must have gone on. Then the falconer asked his master to let him go after the group of falconers with whom the Sinjari had ended up to find out about why it had gone like that. Therefore the falconer went on and reached their camp and introduced himself to the master as a poor fellow looking for any job to help in preparing and serving food or coffee. He was given the job as a coffee making servant. He saw his old brave, famous Sinjari in a tent with other disabled or neglected falcons, and was only given its daily food ration, and left there without being carried on the fist or treated like a dignified hunting falcon. He went on for several days, only watching how the falconers left in the morning, and come back to the camp late in the evening, when they sat around the fire after dinner, reviewing all the events of that day with all the stories they liked to hear about their day's hunting and how certain falcons performed and other stories about the houbaras they lost because of some ill performing falcons. So, the man started spending some time with his old, brave Sinjari, and managed to bring back the old intimacy and understanding which they had enjoyed. It is common that the servant who serves the coffee is allowed to come quite close to the master and the other falconers in the Majlis while serving coffee, which is served in small cups several times every now and then, whenever the master calls for a fresh coffee serving. Once, while serving the coffee, he went on to ask his new, temporary master if he could accompany him and the group of falconers when they went hunting in the morning, and his excuse was that he had nothing to do if he stayed in the main camp during the morning period, and he could possibly do something useful for the group if he joined them. When the Sheikh accepted his request, he then asked his master if he could take the Sinjari falcon with him, which had almost been forgotten by his master. This request came as a surprise to the Sheikh, as he did not expect that this coffee server could know how to carry a hunting falcon, or even be interested in joining the group of falconers and all the hassle of a hunting falcon. The Master was very generous and offered his coffee server the opportunity to take the Sinjari, probably because he did not care for it as a hunting falcon, after it had been considered only an average falcon, and it did not matter if it stayed or was taken by anyone. Then, on the first morning of joining the falconers, everything went as usual, until the afternoon period when the falcons are usually exhausted, and probably lose interest in flying and pursuing the houbaras. Here the coffee server again was opportunistic, and went on to ask his master to give him and his Sinjari the most difficult task of challenging the houbara and releasing his Sinjari at a time when the other skilled falcons were unable to catch up with the houbaras, or when the houbaras were too far away and the falconers were usually reluctant to release their falcons after them. It is well known that there is a risk of losing a falcon in flight, if it is released after a fast flying houbara, and if the falcon continued its pursuit. Then came the chance which the coffee server was patiently waiting for, and his master gave him the green light to release his Sinjari after a houbara which went far away from the point where a falcon would normally be released after it. No one was expecting what they saw when the Sinjari stood up on full alert and fully confident once its hood was taken off its head, and it stayed for a moment looking around, concentrating its eyes on the houbara, which was flying in the distance. Then, as most falcons usually do, it defecated and flew off from the fist, swiftly and low in height in the direction of the houbara. The other falconers thought that the falcon might be flying after something else! It kept on flying and beating its wings more and more, increasing its speed gradually reaching that point when it started to glide higher and

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faster with swift wing beats, until it reached the high flying houbara, and grasped it from its abdomen to start rolling down with it from the sky to the earth, when it released it just before they both hit the ground. This scene was fascinating to the falconers and they could not believe that the falcon which had been left neglected in the tent, had such a fantastic potential skill in hunting – his speed of flight and maneuverability matched that of the most skilful and powerful peregrine. Then his hunting skill began to exhibit itself whenever it was released after a houbara, and it was demonstrating different ways of hunting, both in the air and on the ground. Then the Sheikh and his falconers came to the conclusion that this Sinjari must have been mistreated in some way or mishandled and might not have had the attention and proper treatment it deserved. When everyone was satisfied about the performance of the Sinjari, the coffee server took it on his fist and came to the Sheikh and said to him: Sir, this is the falcon which my Sheikh sent to you, it was his best falcon, and what you heard about what it could do was true, but the problem was that my Sheikh forgot to send you a real falconer with it, a falconer who knows how to handle and carry it! Then he left the falcon on its perch in the majlis tent and said goodbye and went back to his people.

In recent years, Arab falconers have been giving more chance to the so-called failed falcons. Some have even developed a clear interest in captive-bred falcons, especially when they heard some falconers talking about how good hunters they could be. But they still tend to harbour their usual attitude and feelings towards the captive-bred falcons, which is very suspicious in many cases. In recent years, most falconers believe that they need to be lucky to find a good performing captive-bred falcon which performs the same every time it is tried for hunting the houbara. In most cases, Arab falconers show great interest in captive-bred falcons only when they are large, nice looking and when their prices are very competi-



tive in comparison with the prices of wild caught falcons. Some captive-bred falcons, mostly the hybrid ones, have performed really well, although not up to the standard of wild caught falcons, but it was clear to most of the falconers that these captive-bred falcons need more patience in training and they also need longer periods of flying practice to develop more strength in their breast and wing muscles, to learn more about maneuverability and improve their performance when chasing prey. They also need to learn by experience more about dangerous situations they might encounter, like coming face to face with the larger and more powerful birds of prey like eagles. It must be said that some Arab falconers have become very fond of some hybrid falcons, to the extent that they told me that they are no longer interested in hunting with any other falcons apart from hybrids and some gyrs. It is because they like their power and large size and being intrepid, which means a lot to the falconer.

39- A juvenile large size female, captive bred dark peregrine falcon. The shape and size of this peregrine is very attractive and would be loved by most peregrine falconers, unless they have some reservations about its performance. Doha, Qatar 1993.

The falcon is kept for the moulting season which mostly starts in March and ends by the end of September, or sometimes even the end of October or November should the falcon encounter any kind of sickness, which has affected the moulting process, or if the falcon has been moved several times from one moulting room to another during the moulting season. Sometimes we might see a falcon which has finished moulting by August and is ready for hunting. Juvenile peregrines would very rarely complete their moulting before the end of December. However, when they start moulting, they might moult two or three primary feathers at the same time. I have seen juvenile and adult peregrines which have moulted more feathers in an unusual manner which made them unable to fly a height of just two meters. This is certainly something that never happens to peregrines which live in the wild because they obviously moult late and it is a very slow process. This is very clear when the adult wild peregrines trapped from the wild while they are still retaining two or maybe three primary feathers from those of the last year even if they were caught very late in the season. In captivity, many juvenile peregrines tend to keep the ninth and tenth primaries unmoulted until the next season and even, in some cases, until the following season if something went wrong with the general health and care of the falcon. Lanner falcons and the average forms of saker falcons, which are usually called Wakri Al-Harar, mostly finish moulting earlier than the more attractive forms of sakers and the peregrines. This is why the falcons which are used at the very beginning of the season are usually the lanners, low grade sakers and the adult peregrines which are one year old or older. There are also the juvenile falcons, which appear early in the falcon market, and are ready for the use in hunting for any available prey, because it is mostly too early to find a houbara in the wild of all of the Arabian peninsula. It is believed that it is not worthwhile spending money, time and effort to feed and care for a falcon with an uncertain future and dubious skill for the whole moulting season. This is because of the risk of losing the falcon during the months of the moulting season due to different reasons. These reasons could be a fatal disease, or any of the disabling conditions which are numerous, like the different kinds of foot problems, or feather damage and abnormalities which usually offer the falcon an uncertain future, or the disabling results of a pox infection which could lead to loss of the talons or sloughing of the upper beak. Therefore, it seems that in the case of many falcons, it is better and more convenient cost-wise to sell them or give them up in any way, and buy a reasonably priced juvenile, which could become a very successful hunting falcon. Here, I would have to stress the fact that the price, the general look and all the external features of the falcon do not in any way influence the hunting performance of the falcon. I have seen so many falcons which were not so attrac-



40- An adult wild caught peregrine, trapped in late November, still retaining the last three unmoulted primary feathers. It was trapped in the mid-west of Saudi Arabia, November 2006.

at the very beginning of the season are usually the lanners, low grade sakers and the adult peregrines which are one year old or older. There are also the juvenile falcons, which appear early in the falcon market, and are ready for the use in hunting for any available prey, because it is mostly too early to find a houbara in the wild of all of the Arabian peninsula. It is believed that it is not worthwhile spending money, time and effort to feed and care for a falcon with an uncertain future and dubious skill for the whole moulting season. This is because of the risk of losing the falcon during the months of the moulting season due to different reasons. These reasons could be a fatal disease, or any of the disabling conditions which are numerous, like the different kinds of foot problems, or feather damage and abnormalities which usually offer the falcon an uncertain future, or the disabling results of a pox infection which could lead to loss of the talons or sloughing of the upper beak. Therefore, it seems that in the case of many falcons, it is better and more convenient cost-wise to sell them or give them up in any way, and buy a reasonably priced juvenile, which could become a very successful hunting falcon. Here, I would have to stress the fact that the price, the general look and all the external features of the falcon do not in any way influence the hunting performance of the falcon. I have seen so many falcons which were not so attrac-

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tive, nor highly priced, but were so good at hunting that even their owners did not expect such a high standard of performance and desirable features from them, when they first purchased them.

3-The attitude of the falconers towards the different signs of foot afflictions, is no longer unique, and not at all like it was fifteen or twenty years ago. At that time, most of the falconers adopted almost the same attitude whenever they encountered any kind of foot affliction in their falcons. The incidence of foot afflictions, has been greatly reduced since the use of Astroturf as a perching pad covering the top of the traditional wooden perches of the falcons. This was to a great extent a reason behind the ignorance of so many of the new young generation of falconers as to what a foot affliction could cause to a falcon when it became complicated. It is because they have not seen as many cases as the old falconers who were very familiar with it in those old days, when foot afflictions were very common and always expected. Fifteen or twenty years ago, the old experienced falconers were always worried about the least sign of foot affliction when it occurred on a falcon's foot. The Arab falconer in the past would soon think of releasing his falcon or giving it away if



41- Salman, an average saker falcon which has a long history as an excellent hunter. It was imported from Pakistan as a juvenile in autumn 1983 and brought to Prince Mansour bin Abdullah bin Abdulrahman Al-Saoud. It was 21 years old when photographed here on October 2004. The falcon died in October 2006 because of an undiscovered and untreated oral infection. Riyadh, Saudi Arabia 2004.

he discovered the first signs of the primitive stages of bumble foot infection. That sign might only be the formation of a scab formation and primitive mild swelling. However, a definite decision needs more pronounced signs like severe swelling of the foot and signs of pain which point to a serious bumble foot infection. Some falconers might attempt primitive methods of treatment by using different substances and, if these fail, the falcon will usually be released or given to someone else who wants to try his own remedy. I have encountered so many cases of bumble foot infection where the falconers immediately ask

me whether I think that the falcon's feet will fully respond to treatment, so that they can return to their normal shape and fitness. If not, they intend to get rid of the falcon either by giving the falcon away, or releasing it out of kindness and love for a dear friend. It is the old belief of many falconers that the best treatment for a falcon with a foot problem is to set them free, which is true to a great extent. This will be discussed later in the chapter on the falcon diseases. Those falcons will surely be unfit for the hard and difficult job of hunting. A falcon which cost US\$5,000 will probably not worth more than US\$200, if it has an obvious foot problem. In most cases the owner of such a falcon would not like to sell it that cheaply, therefore the other choices apply here like releasing the falcon back to the wild, or releasing it in a room and keep feeding it or giving it to a friend who would like to try out a treatment. All of the aforementioned possibilities are dependant on the value of the falcon itself. The slightly affected falcons, which are not suitable for falconry, are not normally kept for breeding as Arab falconers do not breed their falcons. There are only three or four breeding facilities in all of the Gulf countries, which are privately owned or established by certain people who are only interested in breeding falcons as a kind of hobby and are not serious attempts to provide falcons for their own falconry or for the falcon market. However, it must be said that many things related to different aspects of Arab falconry have changed a little, as we previously mentioned in the Introduction, and everything has obviously been moving rapidly towards remarkable changes since the early 1990s. These aspects include the remarkable improvement and development in surgical techniques and the encouraging results which have been achieved in the treatment of bumble foot in falcons. Also the idea about captive-bred falcons has certainly changed, although differently from one country to another depending on the new experience the falconers in certain countries gained through their trial of different captive-bred pure or hybrid falcons. Some of the captive-bred hybrid falcons have been able to prove to many falconers that they could be as good hunters as the wild caught pure falcons. However, these captive-bred falcons need a different approach from the Arab falconer which certainly something which cannot be provided by all falconers!

I must stress the genuine warmth of feeling some falconers exhibit for their falcons, which successfully accompanied them on their hunting expeditions for several years, when they incur a severe foot problem or respiratory troubles. Many falconers try to cure them by any means, but, if they fail, the next step will be feeding the falcon and then releasing it. Some falconers do not like to release their sick falcons, especially when they know for sure that they are unable to live on their own and hunt for themselves in the wild, so they will continue to feed them until they die.

4- The falcon requires a very high standard of fitness, acuity and keenness for hunting, before it can pursue the houbara and succeed in catching it to earn the interest, satisfaction and respect of the falconer. Indeed, it is not an easy job and not all the falcons which are kept for hunting in the Gulf countries are up to this standard. During the hunting season, there are always wild caught juvenile and adult trapped falcons, which are exhibited for sale in the falcon markets of the Gulf countries. These falcons, after being purchased, will be tamed and trained for hunting, and will accompany the falconers on their hunting trip anywhere it could be. If these falcons eventually turned out to be sub-standard, their future in captivity would depend on their monetary value, their owner's wishes and how wealthy and busy he is. If they are not such valuable falcons and belong to a rich falconer, they will normally be given to someone who is usually one of his fellow falconers or, someone else as a gift. Then the recipient will decide whether he wants to keep it, sell it or release it. The incidence of deliberately releasing falcons back to the wild by falconers themselves does not happen as frequently as it used to twenty or more years ago. A Governmental falcon studies project in the U.A.E. is said to be releasing falcons back to the wild as a routine practice every year. There are some falcons which get lost in hunting while pursuing their prey and the falconers cannot discover where either the prey or the falcon went. These lost falcons could be included in some cases in the list of those which have returned to the wild. They cannot always be included because, in many cases, they are trapped again by other falconers who may advertise them in an attempt to find their original owners. The non-closed leg ring which carries the name and telephone number, is now

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42- A group of peregrine juvenile falcons trapped in Iran and smuggled through the Gulf to reach Doha, Qatar. They are exhibited for sale in a trader's house, where people would come to see them and enquire about the prices of those which they liked. Normally, the buyer would ask if anybody has already bid for the falcon he is interested in, and if the answer was "Yes", then it would be clear that the trader was not satisfied with the price and he is looking for a better offer. Then, the real bargaining starts if the buyer was really interested, and if he believed the whole story of the trader. Otherwise, if he did not believe it, he could bid an even lower price and say "I can give you cash now", which is tempting for the seller because many falcon deals go on postponed payments. Doha, Qatar 1994. the purchase at that time. This is something tempting to the seller because many of the falcon deals go on postponed payments. Doha, Qatar, 1994.

used by all the falconers, and helps to easily and quickly find the original owner of a lost falcon. Losing a falcon happens mostly during hunting in areas where the land is uneven, rocky or in places where bushes and trees make it difficult for the falconers to follow the pursuit, although most Arab falconers use very high performance four wheel drive vehicles, which are especially equipped for desert terrain. In many cases falcons have been lost during the daily routine training process of the call to the lure. Binoculars are commonly used for watching the flight of both falcon and prey, but they cannot spot the houbara before it flies. Almost all the falconers in recent years use specially made electronic transmitters, which are especially modified and made for use in falconry. Most Arab falconers tend to attach the small metal holder to one of the two central feathers of the tail. Then the body of the transmitter, which carries the aerial, is attached to this metal piece. In my clinic, I fix this metal piece to the tail feathers of several hundred falcons every year. Some falconers tend to attach this hook to the jesses, especially when they encounter a rare phenomenon, where some falcons



43- A juvenile, small size, female peregrine, trapped in Iran, smuggled through the Gulf to Doha. The falcon as it appears is still showing signs of stress and exhaustion, which is due to the very long period of suffering the smuggled falcons normally have to endure. Doha, Qatar 1993.

insist on aggressively preening the base of these tail feathers where the metal piece has been attached until they damage or cut the feather itself or dislodge the metal piece. The Arab falconer is always cautious not to release his falcon either in an improper area or at an unsuitable time, so he will certainly do a survey of the area to discover if there are any natural obstacles or protected areas which he cannot, or is not allowed, to go through, or an urbanized area where it would be impractical to follow the pursuit the falcon. Midday is always avoided by old experienced Arab falconers. But of course there are always exceptional cases when the falconer gets excited when he sees the prey, especially if it is a houbara after waiting a long time. This is why the falconer may forget about all the possible outcomes of the challenge of releasing a falcon at this time. In many cases when a falconer loses a falcon in a certain area, and the electronic transmitter for some reason, is not transmitting or giving any idea where the falcon is, the falconer might find himself obliged to spend a night or more in the area where he suspects his falcon might be, until he finds it or give up hope completely. These cases of lost falcons mostly happen when the falcon is released just before sunset, or when it has succeeded in hunting the houbara and started eating it, while the falconer was either far from the spot or unable for any possible reason to find where it had landed. The next day, if the falcon was really in the same area or, not so far from it, then the first thing the falconer would do in the morning would be to start waving the lure in different directions as if he were calling the falcon to the lure, like he did in daily training. Also he might release a pigeon, after tying its leg to a long string so that it could not fly far. On my last falconry trip to Tunisia, a lost saker needed two falconers to spend a night away from our main camp before they managed to locate it. Some falconers recount anecdotally that some lost falcons have returned to the main falconers' camp (Inna) on



44- A harvest of two houbaras in a matter of half a day for three falconers with one vehicle is considered reasonable and worth a break to rest and have a cup of tea or coffee. In a land so rich, like Iraq, which invites many migrating houbaras, falconers could enjoy a good time hunting and probably go for other prey like shooting sand grouse and wild ducks if they went to the southern part of Iraq close to the marshland areas. Iraq, 1989.

their own without any interference from the owner! But, as usual we have to take such stories with a pinch of salt as many are highly exaggerated.

5- The falconer must immediately follow the falcon as fast as possible, when it is in pursuit, to avoid the possibility of losing it. Losing a falcon in pursuit happens frequently when they continually chase fast flying houbara. To achieve this in the desert terrain, the falconer would certainly need a high performance, specially equipped desert vehicle. Also, in many cases, it would be difficult for the falconer to spot the falcon and the houbara while they are in pursuit, if he was alone while driving the car. Thus another falconer is usually needed to assist in spotting the falcon and the houbara with binoculars if they flew away too far to be spotted by the naked eye. Binoculars are so important for falconers in the wide desert terrain. This does not mean that all falconers are keen to carry binoculars on hunting expeditions. These modern innovations, like the high performance four wheel drive vehicles, the electronic transmitters, the binoculars and, in many cases, the wireless communication systems are invaluable for an Arab falconer in the desert terrain. It is because the main prey for an Arab falconer is the houbara which is a very fast flying bird, especially when it senses danger and decides to fly off. It is a very cautious bird with reasonably high maneuverability. Its size is normally about double that of an average falcon. The hunting of the houbara is not an easy job for either the falcon or the falconer. The falcon and the falconer should be well prepared and equipped. The falcon should be strong enough, keen, fast flying and have a good response to the maneuvering houbara, and should be determined and hungry. This does not mean that every time there will be the same need to have all the aforementioned features at their peak, but they should at least be average so that the falcon will not disappoint the falconer. The falcon could fail in its first attempt to pursue and capture the houbara, and, in many cases, the houbara could escape from the talons of the falcon. Therefore, even after it has been caught by the falcon, if the falcon was not hungry and not so determined, it could give up wrestling with the houbara, especially if it was too strong. When



the falcon is not so hungry and probably scared that it might hurt itself, it could give up the fight with the houbara and the latter could manage to escape, even if it was severely wounded. The falconer should be well prepared and have good experience, like being able to interpret the houbara's footprints in the sand. These footprints, which he sees in the sand, could have been left at different times. The falconer should be able to recognize and tell the old from the new ones. He should also know how to follow these footprints to track its path and to know if it has flown off or is still around in the area. The falconer should know

45- An unusual chase of a houbara by a very courageous juvenile peregrine. Peregrines are known as aerial hunters, and usually avoid chasing the houbara on the ground and prefer to attack it in flight. That is why in many cases the falconers would need to push the houbara to fly off by driving their vehicles towards it, and to give the peregrine the advantage which it normally needs to exhibit its natural excellence in performance.

Saudi Arabia 1993.

*46-Most of the Arab peregrine falconers are attracted to the peregrine which responds quickly and keenly to the call, thinking that food is about to be offered. The falconers attribute this kind of behaviour to the courage and keenness of the peregrine towards houbara. However, in the case of the captive bred gyrs or gyr hybrids, it is taken as something quite usual and does not reflect the real hunting ability and keenness towards chasing a free living houbara, or any other prey, which is very disappointing.
Saudi Arabia 1984.*



when is the right time, and the distance from the houbara before he releases his falcon, otherwise there is always a possibility of losing the falcon. Certain times during the day, like midday, are usually avoided by the falconers and they do not normally risk releasing the falcon at this time.

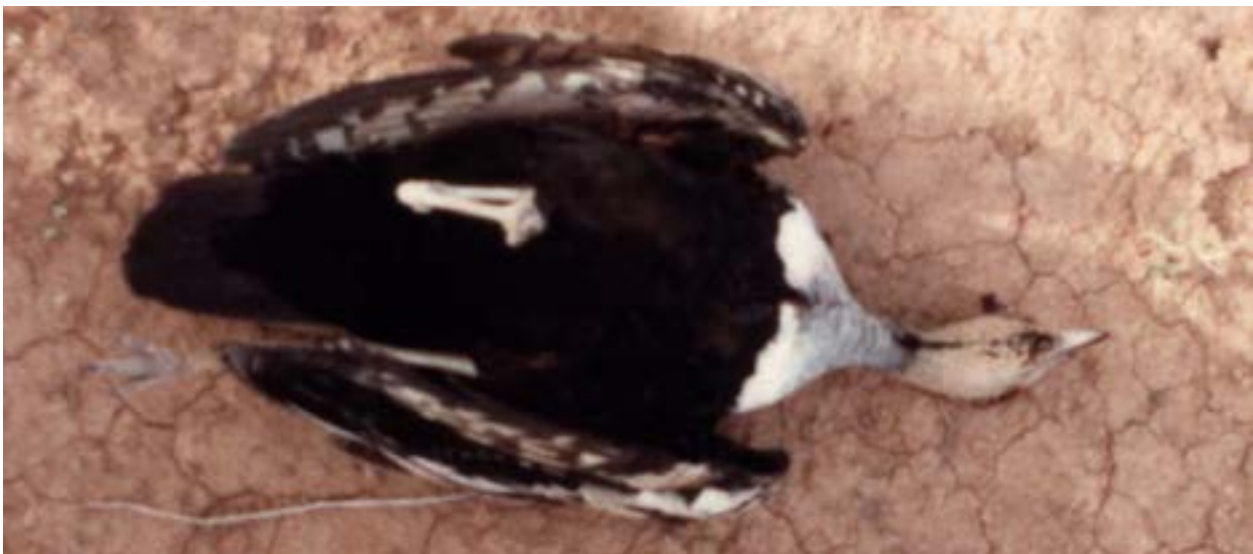
Many Western falconers are very interested in participating in one way or another in an Arab falconry expedition. I know many have been very interested in watching hunting videos which showed hunting trips, and were full of hunting scenes mainly showing falcons fighting houbaras on the ground, which is something the Western falconers rarely encounter in Western falconry. The scenes of the fight between the falcon and the houbara which, I must say I never liked to watch, are really impressive, especially when they show the skill of the falcon with its determination to keep holding the houbara from a weak point like its neck. The scenes in many cases also show the houbara when it tries its best to fight back for its life, kick the falcon and fly again, if it can escape, and when it defecates the fecal material which it is keeping in its intestine, which is very offensive and sticky. Although this scene of the defecating houbara would be most difficult to be shown clearly in a video film. I always tend to believe that this kind of fight between the falcon, which is usually a saker, and the houbara would rarely happen in the wild, since it is too difficult to limit the falcon's understanding of live food just to houbaras. The falcon in the wild would go for anything to satisfy its hunger and would rarely go for a difficult kind of prey like the houbara if it could easily get its food from another species, which make much easier prey. Arab falconers always tend to imagine that the falcon that they have just purchased is already an experienced houbara hunting falcon. They always love to explain the movement of the falcon and its reaction to the houbara as if it has had the previous experience of hunting it. Yes, there have been so many sakers and peregrines which were keen enough to show signs of interest in the houbara, as soon as they have had the chance to see one, and were released by their owners after the houbara because they have displayed clear keenness, desire and interest in going for it, and were really successful in hunting it. But this does not necessarily suggest that they have had previous experience of being houbara hunters. There is no doubt that hunting a houbara is in most cases an exhausting mission to be accomplished by a falcon, although many falcons are normally capable of hunting more than one houbara during the day when they are given the chance. In the wild it is unlikely that a falcon would bother to chase a houbara if it was going to be too much trouble and not an easy prey, while there are still plenty of other small creatures, either birds or mammals, which would make much easier prey for different falcons. It is only the training which could push the falcons to perform so keenly and with such determination, while, at the

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same time, never forgetting their inherent hunting ability, on which foundation falconers build their different training methods. It is well known to almost all the falconers that haggard falcons have more experience in attacking as well as avoiding dangerous situations and conditions. I have seen many inexperienced falcons, which have severely injured themselves while hunting, just because they did not release their talons off the houbara when they caught it in the sky, and came down falling with it to the ground. I have seen many powerful gyr and gyr hybrids with fractured wings or legs, because they did not have the necessary experience of how to deal with conditions like this. Other inexperienced falcons have hit the ground when they were stooping at a maneuvering houbara or hare. Others pursue the stone curlew or hare which tend to seek shelter in small spiky desert bushes and, as a result, they severely injure themselves on those spikes. I will never forget a saker falcon which was released after a *Little Bustard* in Somalia, when this little bustard hid in a small spiky bush, the saker landed there on the ground and kept looking here and there, trying to find a space where there were no spikes through which it could go to



47 & 48– The Black Bellied Bustard, Eupodotis melanogaster, is a resident species of bustard which inhabits extensive parts of East Africa. This beautiful bird is shot in Somalia to feed the falcons. In Somalia, the local people were rarely shooting these wild birds. This bustard could be good prey for a falcon unless it took refuge in the small spiky bushes. If an inexperienced falcon chased it there, it might exit the bush as a damaged victim, rather than a glorified hunter. Somalia 1983.



catch its prey. It did not find it until we arrived and forced the little bustard to fly again. The saker soon flew after it and caught it in the air!

6- Arab falconers use two main species of falcons for falconry. These are the saker falcon, *Falco cherrug*, and the peregrine falcon, *Falco peregrinus*. There are different subspecies and forms of saker falcons which could easily be recognized by certain external features, and clearly they come from different geographical areas and countries. There is a wide geographical range where the different subspecies and forms of saker falcon normally live. Although it is not as wide as the geographical range which is inhabited by the peregrine falcon, and that wide range of areas to which it migrates which covers almost the entire world. The range of the saker falcon is mainly the northern parts of Asia, going south east as far as the southern parts of China, parts of India, Pakistan, Iran, Iraq, and covering almost all of Mongolia, Afghanistan and the former Asian Soviet Union Republics. A few studies suggest that it reaches as far west as the Czech Republic and Austria. Until the late 1970s the peregrine falcon was not so commonly used by most of the Gulf falconers.. It was mainly used by the falconers in Bahrain, Qatar and some Sheikhs of Abu Dhabi. Saudi Arabian and Kuwaiti falconers were quite reluctant to use the peregrine falcon. They believed that it is a very delicate falcon and could not become a good companion falcon - or at least not as good as a saker falcon. The peregrine falcon subspecies and forms which are used by the Arab falconers are those which mostly inhabit the Central and Eastern parts of Asia, the Eastern parts of Europe and the Mediterranean, which will mostly migrate south into Pakistan, Iran, Iraq, Syria, North Africa and the shores of the Red Sea, on both sides, in Saudi Arabia and Sudan. Many peregrines are trapped in the Northern and Central Saudi Arabia, and also in the other Gulf Countries every year between October and December. These peregrines, which are trapped in different Gulf countries, are very highly prized in both Qatar and Bahrain. They are not so highly prized in Saudi Arabia and are still



49- A group of Peregrines belonging to one owner ready to go for hunting. It is becoming usual to go hunting with only peregrine falcons which are still the favourite of many falconers mainly in Qatar and Bahrain.
The Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia, 2006.

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not very highly demanded or sought after by the falconers in Saudi Arabia. The falconers of Saudi Arabia still prefer the saker to the peregrine falcon, just as they did many years ago. There are many forms of sakers which are commonly used by many falconers in the Gulf, but are considered as non-sakers. Arab falconers call them by different names like, *Wakri Al-Harar*, which means from its name, a hybrid coming from a natural crossing of the saker and the lanner falcon. The *Gurmoosha*, is another name which has no obvious meaning in Arabic as far as I know. The name *Gurmoosha* is given to another form of saker falcon. It is supposed to have its own specific characteristics, which are described differently by different falconers. It is easy to distinguish the *Gurmoosha* from the typical saker falcon, by using the different features and characteristics which Arabs insist on attributing only to the typical saker falcon. Although natural hybridization is not to be completely ruled out, I find it difficult to believe that these common falcons are hybrids, or anything than a different form and subspecies of the saker falcon. It is not difficult to distinguish *Wakri Al-Harar* from the typical saker, particularly in the adult plumage. However it is more a matter of argument in the case of the *Gurmoosha*. The *wakri al-harar* is mostly reddish in colour on top of its head, with clear dark moustache like lines extending from the lower eyelids of both eyes, going backwards as in the saker but broader and clearer. The other distinguishing characteristic feature which the novice might not notice, is the length and width of the toes, which are somewhat long and narrow in the case of *wakri al-harar*. The toes of the saker falcon are shorter, wider and apparently more powerful. Most *wakri Al-harar* are dark in colour, but not as dark as the desired dark-black colour of the saker falcon, which can be found in a range of colours from very pale to very dark. It is quite difficult to specifically describe the external features of the *Gurmoosha*, to distinguish it from the saker. Some falconers claim that the *Gurmoosha's* talons are longer compared with those of average falcons. Many *Gurmooshas* are dark in color with a relatively large sized beak. The other species of falcons which is used to a lesser extent is the *lanner falcon*, *Falco biarmicus*, and very rarely, the *lagger falcon*, *Falco jugger*, but people are not so keen to obtain these falcons and in the majority of cases they are only used to teach beginners. Their use in falconry is more common during the beginning of the sea-



50– *Nahhab*, an adult saker with chronic bumble foot of its right foot. Prince Mansour bin Abdullah Al-Saud, did not want to give up keeping it because it had been a keen falcon and had had good memories of falconry with it. Many falcons like *Warrad* are kept by their owners indefinitely until their natural deaths. Photographed here in the Clinic after it had an operation on its foot. Al-Khobar, Saudi Arabia 2006.

son when they dominate the falcon market in the Gulf region because they come to the area earlier, will be exhibited in the falcon market and will not be too expensive. Also, their presence in the falcon market will be apparent towards the end of the hunting season, when there will be very few houbaras left in the area, but there are still some stone curlew, *Burhinus oedicephalus* and hares around. Arab falconers tend to keep on using these falcons for hunting more than the highly priced saker falcons but they will not keep them for the moulting season unless they are very good hunters. These falcons are treated by Arab falconers the same way they treat small peregrines and both peregrine and saker males. The *Barbary falcon*, *Falco pelegrinoides*, which is not common, is also used when it comes to the falcon market. However falconers are not so keen on obtaining them, although many falconers have a special idea about them, and about their ability in hunting. Therefore when they find them for sale in the market, they have no hesitation in going and bidding for them especially because their prices never go higher than US\$500. Arab falconers call these falcons different names, although they believe they are related to peregrine falcons. Traditionally Arab falconers were not familiar with the different falcon sexes and did not use the two words, male or female.



51- A juvenile "Akhdhar" saker falcon is considered inferior saker and usually used earlier in the season and for longer periods in hunting. Doha, Qatar 1988.



52- The lanner falcon is obviously getting less and less common compared to its situation in the 1980s and 1990s. Doha, Qatar 1987.



53- "Wakri Al-Harar" is still the term used by many falconers, especially the old ones to describe some of the average or below average saker falcons. Doha, Qatar 1988.



54- This Juvenile lanner falcon has just started to moult. There are only few people who would be willing to keep a lanner falcon for the next season. It has to show great skill before it is appreciated that much. Doha, Qatar 1987.

56- The adult lagger falcon has been rather difficult to find in recent years. It used to be imported in the past, but the high cost of importing falcons has made it prohibitive in recent years. This one is said to have come from Pakistan, Doha, Qatar, 1988.



55- The Barbary falcon still migrates into Saudi Arabia where it is trapped, or in many other cases trapped in Yemen, or imported cheaply from Sudan, where they are trapped. The Falcon Clinic, Al-Khobar, Saudi Arabia, 2006.

57- A juvenile male lagger falcon, of unknown origin. Doha, Qatar 1988.





THE ARABS AND THEIR ENVIRONMENT

It is well known that the international media and different modern methods of communication, have played a major role in disseminating information between the peoples of our world. Many obscure aspects of life and its traditions in the most remote areas and isolated people of the world, have become familiar and known in the modern world. Some of this information may have been misunderstood, or exaggerated in its transmission. We could not rule out that misunderstandings have been encouraged by some quarters of the media, nor even that the exaggerations were due to a deliberate desire to push some people in the West to form their, as well as other's, opinions about the nations of the Third World. But, it is clear that, despite the great improvements in communications technology, misunderstandings and exaggerations still go on, and very little can be done to correct many ideas prevailing in the West about nations of the Third World, including the Arabs. It is certainly not fair to employ Western criteria to satisfy Eastern needs and answer eastern questions, nor can we explain and evaluate the Eastern man's behaviour and mentality by using the Western man's character and behaviour as a standard. Much has been said about the importance of the environment to life on earth, the different irresponsible practices mankind is imposing on the environment, and the ways adopted by the different environmental protection organizations to alter some of these practices or stop others and maintain the earth's environment reasonably protected from the damage caused by mankind.

For many centuries, the Arab environment and wildlife, in particular, were to a great extent far from what could be considered as deliberately abused by the inhabitants, whether the Bedouins or the urban Arabs. The high speed of urbanization and modernization in the Arabian peninsula is very clear in all the Gulf countries. This was certainly greatly responsible, for the obvious extension of the urbanized areas and other man-made facilities, which lead to the environment and wildlife being neglected and probably abused. There is no need to say that most Arab countries are not heavily populated by man and wildlife. This is due to the nature of the land and climate. Most of the Arab land is arid, semi-desert and the climate is almost always very hot, dry and does not encourage and positively hinders the chances for many species of wildlife to breed and multiply could hardly compensate for the losses due to the excessive hardship encountered during their lives.

The exact causes for the extinction of the *Arabian Oryx*, *Oryx leucorix* from their natural habitat in the southern part of the Arabian peninsula have been a cause for argument. For a long time the Arab Bedouins were blamed by Western wildlife researchers as the direct and, probably, the only cause for the extinction of the Arabian Oryx. It is difficult to know how much was the effect imposed on the life of the Arabian Oryx by the Bedouin tribes who were roaming in the area of the Empty Quarter "Rub'a Al-Khali" which was its natural habitat, as we cannot rely on the stories of the people who lived in the Empty Quarter or who used to pass through it or wandered there for any season, and those who had the





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chance to see the Arabian Oryx before the late 1950s. It was then that a few Paramount Sheikhs from Qatar, on receiving news from some Bedouins about the existence of a creature in the desert of the Empty Quarter, decided to explore the area looking for it to try to capture live ones and bring them to Qatar to be kept in captivity as part of the harvest of their hunting trip to enhance their prestige as well as enjoy having such rare animals in their possession. I have seen a colour film, filmed by an 8 mm camera, showing one of these trips which took place in the early 1960s. It was obvious from the film the effort that was needed, the number and kind of vehicles used and the time spent on the trip. It was very clear that it is far beyond the ability and reach of the average Bedouins who were scarce in this desert and living with the bare necessities for the human existence. I have been told by two of the people who were participants on that trip, that the result of it was the capture of more than ten Arabian Oryx. After being brought to Qatar, they lived for some time and bred before an infectious disease, which was apparently very lethal (probably Rinderpest), caused their elimination. On the two trips to capture the Arabian Oryx which preceded this one, but were during the same period of early 1960s, the founders of the Arabian Oryx herd of Qatar were caught. However those founders suffered from many losses due to the lack of proper veterinary care and absence of a scientific breeding program to control and improve their breeding. From all the aforesaid, it could be concluded that man was not really the only reason behind the extinction of the Arabian Oryx from the wild. The natural habitat where they are living was becoming more and more dry and very inhospitable, which seriously contributed to their demise. It is difficult to chase these Arabian Oryx in the desert of the Empty Quarter without the use of four wheel drive vehicles, which were not common or unavailable to the local Bedouins before the 1960s. It was well known to the Bedouins who were living on the edges of the Empty Quarter, and to those who were passing through it from time to time, that very few of them have had the chance to see the Oryx in the wild. Yes,



59- A group of skulls and horns of addax and dorcas gazelles, and only one old decayed horn of a Scimitar Horned Oryx (in front), found in the Northern region of the Hawar valley/Chad area. Some of these skulls are obviously very old, while others seem not to be so old and still have some of the skin and hair on them. Sudan/Chad borders 1983.

many Bedouins have heard about the Oryx and probably have an idea about what it looks like, but they have never seen it themselves. Needless to say, they are unlikely to have had the least chance to shoot or capture it. The real Bedouin who lives in the desert is certainly always looking for any chance to hunt for food whether if it is a small animal or a large one like an Oryx. The Arabian Oryx is known for being a very shy animal and would never give the chance for a man to come close to it. During the 1800s and until the 1960s, there was no way that the poorly equipped and supplied Arab Bedouins could chase a large, shy, strong animal like the Oryx. The Bedouins who were living on the boundaries of the Empty Quarter had always lived a very frugal life for many centuries, probably since the beginning of history! It was not until the middle of the twentieth century that the Bedouins started learn about new developments in transportation and their possible application in the desert. It took the Bedouins many years to be able to think about obtaining this new means of transportation which could provide them with limited comfort in venturing into the grueling, austere desert. Before this time he traveled by camel through this vast eternal desert. When the time came that the Bedouins started to use motor vehicles, the Arabian Oryx was either almost extinct or very few were left, which were collected and captured by Arab Gulf Sheikhs, three of whom were from *Qatar*, as previously mentioned. Therefore, if we want to investigate the role of Arab Bedouins in the extinction of the Arabian Oryx, we might discover that his role was quite small and that he should not be incriminated in this environmental issue. Without the well developed, high-performance four-wheel-drive vehicles, the mission of hunting for or capturing or hunting the Arabian Oryx is really an almost impossible mission. These kind of vehicles were not available to the average Bedouin until the second half of the twentieth century, and the camel was by no mean a substitute for this high-performance vehicle. Hunting guns were very important for the Bedouins to protect themselves, their families and tribes in the isolated desert. They were also used for hunting game, which



60- The skull, horns and neck of a male dorcas gazelle is all that has been left half-buried in the sand of the whole carcass. It is more likely that the death of this gazelle was a natural death because there is no sign indicating that it has been killed by man for food. Sudan, North of Hawar Valley 1983.

were very scarce and hard to find. The efficiency of the guns used during those times was so limited, both in accuracy and distance. The first gun in use was the *Flintlock*, which was very primitive and was called “*Abu Fatila*” by the Bedouins, then came the *Matchlock*, which they called “*Al-Mugamma’a*”, which was more advanced but still of very limited efficiency. Certainly both of those two guns were able to kill any animal if properly shot into a vital organ of its body. This is definitely not always practical, nor could it always be achieved by an Arab Bedouin, especially if one relates it to the Arabian Oryx, which usually runs away as soon as it hears a noise or sees anything suspicious. This always reminds me of my first time in the *Great Sahara* in *Sudan* in 1983. We were looking for the Addax, which is probably as shy as the Arabian Oryx, when the groups of animals which we were following, ran away as soon as they sensed our presence. This probably explains the reason why most of the Bedouins who have crossed the Empty Quarter several times and lived for some time on its boundaries, have rarely had the chance to see the Arabian Oryx before they participated in those trips in the early 1960s. Those Bedouins whom I knew well and who participated in the hunting trip looking for the Arabian Oryx, told me that it was their first time that they had seen that big animal in the very arid desert of *Ruba’a al-Khali*. The famous travelers of the 19th century who visited the Arabian peninsula like, *Wellstead*,

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Burkhardt and Doughty, who lived for some time with the Bedouins, did not mention the Arabian Oryx as a common big game animal which was sought after by the Bedouins at that time. It would be very easy after all, to imagine how difficult it would be for an Arab Bedouin who was hunting an Arabian Oryx, dead or alive, to achieve his goal. One of the common characteristics of the Bedouins, is their tendency to keep as little equipment and goods as possible with them in their temporary residences, which are primitive, light-weight, simple tents, hand-made from goat hair. They never like to keep anything that needs attention or impairs their movement when it is easier not to bother with them. This is especially true if there is no immediate benefit to be obtained from keeping them. This is a very noticeable feature of the Bedouins, even those who now live in big modern cities. I have noticed this very frequently, when the Bedouin falconers always tend to minimize the falconry equipment they keep with them to the minimum. They also tend to reduce the size and weight of the falconry furniture they use for their falcons, like making very fine jesses with very light hoods and blocks. It is also noticeable how far they go with the personal things they carry with them and the clothes they put on. An example of this can be seen in the habit of most falconers, until very recently, of releasing their trained falcons during the hot moulting season when they cannot use them for the necessary hunting they need to practice. This was a very good practice, and contributed to the preservation of wildlife, although it was unintentional. Therefore, I believe we cannot blame the Bedouin for the elimination of the Arabian Oryx because, if he had ever managed to find one, he would only, if successful and in spite of all the above conditions, kill one of the group and would probably not then bother with the rest, which will soon run away and become more cautious in the future, and could never be approached easily again. This does not mean that the Bedouins did not have the intention, nor did not like to hunt more than they needed of these Oryx. It was probably the last thing in the mind of a Bedouin in the Empty Quarter (*Ruba'a Al-Khali*), to worry about the conservation of these huge creatures of delicate meat, which he has seldom had the chance to taste, unless he had sacrificed one of his young male camels or goats, if has any in his possession. But such a thing was far beyond the ability of the Bedouins. So the reason for the sad fate of the Arabian Oryx in the wild is mostly related to the difficulty of living in the very arid, harsh, poor and difficult desert of the Empty Quarter.



61- It is unusual to find live ostriches in the total aridness of the Sahara, North of Hawar Valley which extends into Chad. The desert was completely arid and have not had any rain for over two years, according to the information from the sparse local nomads. We were not hunting this big male ostrich, but only wished to photograph its presence in that desert. Sudan-Chad borders, 1983.

62- *Midday rest is so important to the hunters, even when there is no shade other than that of the cars. During midday the hunters would not be able to read the foot imprints on the sand easily because of the glare of the sun's rays. North of Hawar Valley, Darfur/Sudan 1983*



The reason for the sharp decrease in numbers of the *Scimitar Horned Oryx* and the *Addax* in the *Great Sahara* of *North Africa*, could be the same as those which lead to the extinction of the *Arabian Oryx*, whatever that was. Both the *Scimitar Horned Oryx* and the *Addax*, are almost extinct in their habitat in the *Great African Sahara*, Yet there is little evidence that could indicate the presence of mankind in that desert, where these two species of antelopes live. In the hunting trip to *Hawar Valley* and the true desert area north of it in December 1983, I realized how difficult it was to see the *Addax*. We were under the guidance of the *Bedouins*, tracing the foot-prints of the *Addax* when we saw new foot-prints of a group of four animals and soon started following their tracks until it appeared to our guide, who was telling us what to do to reach these animals, that these four *Addax* had just started to run, presumably because they

63- *Shade provided by a tree in the desert is so unusual and tempting, that the hunters tend to take advantage of it and have some rest even when they are not particularly tired. Having a break under this tree is also helpful in collating information they have collected along their way in a desert land like this. This enables them to decide which route is better to take, which is certainly depending on what they are looking for. North Western of Hawar Valley, Sudan-Chad borders 1983.*



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64- The driver of the Patrol vehicle is slowly moving in semicircles or zigzag surveying movements on the smooth sand of the vast desert, while the hunters in the cars are all concentrating on the sand trying to pick up any fresh foot imprint to start following it. The zigzag movement is suitable to survey wider areas with a much less chance of missing something. It could take hours of this kind of boring slowly movement before any sign of a houbara or an antelope is picked up. This kind of smooth sand could keep the imprints for quite a long time if there was not a strong wind. It needs an experienced navigator to distinguish the new from the old imprints. Sudan/Chad borders 1983.



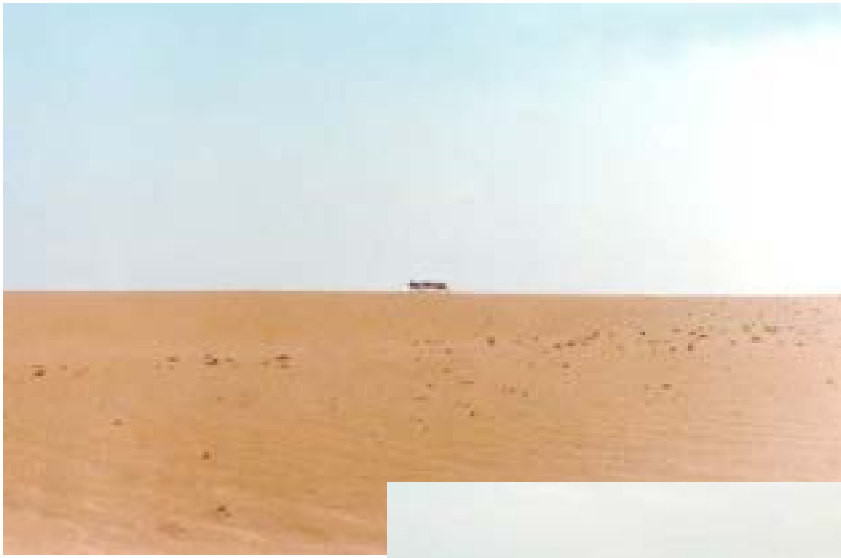
had heard the noise of our vehicles. Then we started pursuing them, driving at an average speed of eighty Kilometers an hour. It took us more than ten minutes before we saw them in the distance on the horizon of the plain unobstructed desert land running for escape. I will never forget that scene because it was the first time that I had ever seen those Addax freely living in the wild, owned by nobody, running freely in this isolated vast desert. All the Addax which I had seen before were either in private collections of wild animals or in zoos, while those I was seeing now were in their natural habitat, with the yellow sand, the clear blue sky, and the sun shining almost all year round. I personally never had the chance to see the Arabian Oryx in the wild, since the last ones were caught from the wild in the early 1960s. But I would imagine its behavior would not differ too much from that of the Addax when chased in the desert. This scene should reassure us of the unlikelihood of them being caught or shot by bare-footed Bedouins.



65-Foot imprints of the Addax. Sudan/Chad border 1983.



66-The place where the Addax group spent the night, and fed on the roots of the desert plants which are full of moisture needed for the Addax life. Sudan/Chad borders 1983.



67- (Left) The first time we saw the addax they were scared of the vehicles' noise, and started running away before they could see us. After following their foot steps for a very long distance, and then driving fast towards them, this was the first time I saw them in the wild and they appeared for the first time as if they were running on the horizon of that vast rolling desert of the unexpected. It was an indescribable feeling in this remote desert where you could spend days without noticing anything moving, and then suddenly you end up chasing these large, strange looking, beautiful and graceful antelopes.
Sudan/Chad borders 1983.

68-(below) The chasing vehicles are getting closer, to isolate the tired young Addax before capturing it.
Sudan/Chad borders 1983.

69- (Below), The Addax are still running while the vehicles are chasing them. The young male addax appeared to be exhausted, slowing down and the distance is increasing between from the rest of the family. One of the chasing vehicles turned to the right, towards it to separate it from the rest of the family and catch it. It was meant to catch only the young ones because the adult large size Addax are difficult to handle and do not easily accept captivity.
Sudan/Chad borders 1983.





70- This is the young addax which was the first to be captured. It was exhausted and needed a rest and fluid to compensate what it had lost while running. North of Hawar Valley 1983.



71- Another adult addax from the same group was captured soon after the young one. Both were kept close to each other and given supportive fluid intravenously. North of Hawar Valley 1983.



72- The next day, after the two of them have taken more than twelve hours rest, they were transported to the main camp. North of Hawar Valley 1983.

73- Hadyia means "Gift", it is the name given to this newborn addax, which was only a few hours old. We discovered it while we were pursuing the adult addax group and one of the Bedouins noticed blood on the thighs of one of the adults.

He realized that this meant that the adult must have been giving birth and soon linked this to what we all saw, which was a few black crows which were hovering over a spot in the desert. We therefore went back to the area where some of the crows were still hovering, while others already landed near the baby addax waiting for the chance to attack. It was a matter of chance that this baby addax was saved. Hadyia is carried in this photo by the author, a few minutes after finding her. North of Hawar Valley 1983.



74- This is the big tree which was where we camped the previous year. When we arrived, there was still some evidence of human presence in the spot under this tree, like tins of condensed milk and some empty plastic water bottles.

They were all partially covered with sand. The tents, which appear in this photo, are to accommodate the antelopes which will be caught and not to be used for people to sleep in at night. Note that one of the tents has only walls and no roof.

Hawar Valley, Sudan 1983.



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75 & 76- Hadyia, enjoying our company in the desert soon after we found her, and in the first class cabin on the way to Doha. 1983.



77- The addax, *Addax nasomaculatus*, settled very well into Al-Wabra and it has been breeding since 1984. In its natural habitat in the wild, it normally changes the colour of its coat from a grayish light creamy brown on its neck in the winter season, to a very pale, very smooth coat in summer. This enables it to camouflage itself and adapt to the environment of the Great Sahara, which extends from north western Sudan to the southern desert of Libya, the north of Chad and the north of Niger. Photographed here in Al-Wabra, 1986.

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78- The addax are settling in and breeding very well at Al-Wabra. They are to be considered new blood of addax amongst the thousands of captive addax in the zoos all over the world. It is certainly the latest group of Addax to come into captivity. It is probably one of the most difficult thing to assess their existence in the wild. In 1983 the total number which we could find in their natural habitat was only fourteen adults in three separate groups. Al-Wabra 1986.



79- An ostrich was running in the desert when it heard the noise of the vehicles. Its running speed was not measured by the chasing car speed which we were driving, but it was certainly running very fast for a considerable distance. This was accompanied by a female and is not the same ostrich in Photo 61. North of Hawar Valley 1983.



80 & 81- (Above) This damma gazelle is three to four months old and has been chased to separate her from her mother to ease the process of trapping both of them separately.

82- (Right) The hunting vehicles are slowly approaching the young damma gazelle which is hardly seen on the left side of the photo near the horizon as a very pale dot. At this time and several hundred meters away from this point, a group of Sudanese Wildlife Protection hunters with a few other men of the hunting group were lying down on the sand while holding a net 10-15 meters in length, far in front of the damma, which could not see them. The hunters in these two cars and two more cars on the left side were trying to slowly push the damma in the direction of the hunters and the net, waiting for the wireless call from the hunters who are holding the net telling them to drive faster to force it to run towards the net. When it came very close, the men stood up erecting the net in its face when it was too late to avoid it and therefore, it fell into the net.

North Western of Hawar Valley, close to the Sudan-Chad borders, 1983.



83- The adult damma gazelle after being caught. Her eyes are covered to calm her down. Intravenous fluid injections are of great value in helping these stressed wild animals to compensate for the body fluid which they loose and to reduce the effects of stress. This sub-species of damma gazelle used to roam this desert and was considered as a common inhabitant of the desert. It is known by its local name to the people who live far from this remote desert. However, it seems that its number very much declined long before we went to that area, and it was almost considered extinct by the Sudanese Wildlife Protection Authority. Sudan Chad borders, 1983.





84- The adult dama gazelle, *Gazella dama permista*, which is represented by three sub-species, was for some time considered to be extinct by African antelope experts. This is probably one of the very few photos showing this particular sub-species of damma gazelle. Many of the other photos previously published in other books on antelopes, were of this same gazelle or its daughter, when Al-Wabra was visited by many experts to photograph the rare species of gazelles. This is the one captured in 1983 in the desert of the Sudan-Chad borders.

Photographed at Al-Wabra, Qatar 1986.



85- *Al-Wikhayim, North West of Sudan, was the last village we reached before we arrived at our main camping spot in Howar Valley. It is where we got our reserve of water. The local people meet here at this point waiting for their turn to get water from the well, which they call "Donki". It is a very old water pump which works on Diesel and pumps the water out of the well. Sudan 1983.*

In the very isolated desert of the Hawar Valley, there were about a hundred and fifty camels not far from where we had our main camp (Inna) in the valley. The owner of these camels was living with his family and these camels, in this valley. He came to our camp to greet the Sheikh and to welcome us in this dry valley. He also claimed that his camels had not drunk water for more than three months, and he was hoping that we might have some surplus water to offer to his camels. *Sheikh Khalid bin Mohammad Al-Thani*, who was the host and sponsor of this hunting trip, after consulting with *Rashid Al-Umani*, who was the main guide of the hunting party, whose opinion was important to Sheikh Khalid, was positive and approved the idea to offer whatever water we had to these camels, and then get more water again by sending the empty water truck back to the last village where there was the water well from which we had obtained our last water reserve. Because of the unpaved road, it would take almost a full day's driving to get back to the last village, called *Al-Wikhayem*, where the water well was, and of course another day to return to the main camp. Then, Sheikh Khalid ordered some men who were with us, to dig a ditch in the sand and cover it with a large piece of tent canvas in double thickness, before filling it with water, so that we would not lose too much water and the camels could drink from it. Our water reserve was probably about two thousand gallons and was stored in large barrels loaded in a big truck. Then the water barrels were unloaded from the truck and the water was poured on to the canvas which was covering the ditch, while the camels were standing in line, very anxious, with their usual emotional cries, pushing each other as soon as they realized that water was being offered to them (*Fig.86*). The owner of the camels was helped by his sons to control the line of camels, watching how much each one was drinking, so that every camel could have a fair share of this valuable water. I could not believe how all these people



86- The camels are drinking our water reserve which we offered to them. The nearest water well was about one day's driving from our main camp. The lorry driver carrying the water barrels had to go back to the last village "Al-Wikhayim" to fill up again and returned just before the next evening. Hawar Valley, Sudan 1983.

could have managed to make all these arrangements culminating in the successful mission of watering all of these camels, while the cost was only sending the truck full of empty barrels back to *Al-Wikhayem* to fill them with water and return to the camp the next day. The scene of the camels standing in line, waiting anxiously for their turn to drink water was really very emotional and proof that man has not always been kind to animals, even though they have been so kind to him. The behavior of the owner of those camels was too strange and cruel to me, I still from time to time ask myself when I remember that day, what could he have done to offer water to his camels if we were not there, with all the water and equipment that we had. The Bedouins who were with us did not believe his story when he said that his camels had not drunk water for more than three months, although they believe that in winter time camels could last two months without water. I should never forget that Bedouins always tend to disbelieve the stories they hear from people whom they do not know very well. In fact, on many occasions, they do not even believe each other easily, even when they are friends and relatives. The hard life of the desert is probably behind this attitude to life and relationships. They are certainly very different from farmers and villagers.

Hunting with falcons does not cause any real impact on wildlife because, for example, the very best falcon will not tolerate the stress of hunting for more than four houbaras in a day. However, this just could not happen nowadays anywhere in the world, no matter how many houbaras could be found together in a certain place. The falcon will soon lose its interest in flying and chasing houbara. Yes, there are certain cases when a few good hunting falcons might exhibit extraordinary strength and keenness in



87- Midday rest on the way to the hunting area North of Somalia where some very rare antelopes are found. This kind of hunting trip is entirely different from the usual hunting trips made to other countries. Somalia used to be a much easier country where many kinds of prey are found, apart from the houbara bustard, which is the main concern of all the falconers. Somalia 1983.

hunting, but the houbara is a very difficult prey and will normally be a difficult one for the falcon, so it requires a lot of effort from the falcon. Hunting with modern hunting guns, would certainly cause a severe impact on wildlife. Fortunately hunting guns are not a priority of most Arab falconers. On the contrary, keen Arab falconers never like to shoot a houbara, and they consider the chance of coming across one in the wild so valuable that it should not be spoiled or wasted with a gun shot. In many cases if a wild houbara was found when a falconer did not have a falcon ready to fly, he would rather wait for a friend to come with a falcon to do the job. Mobile phones have been very helpful on these occasions and, as the falconers know their desert home land in great detail, it is easy to call other falconers and tell them there is a wild houbara which needs a falcon which is ready to be released for the challenge of hunting. The actual tragedy of the houbara is caused by some people in countries like *Pakistan* who have, since the mid-1980s, been trapping hundreds of live houbaras each year in order to smuggle them to the Gulf countries to be sold to people who are interested in using them for the purpose of training untrained falcons. Both the Arab falconers and the *Pakistani* houbara trappers are to be blamed for this. Both underestimate the severe damage they are inflicting on wildlife. There is a great and urgent need for strong, tough action which should be adopted by the *World Organization for the Protection of Wildlife* to stop this. It is really good and encouraging to know that some of the Gulf countries have already started implementing certain regulations in this respect, which will be helpful. Banning the massive trapping and capture of these houbaras is the first step, then prohibiting their importation into the Gulf countries should be next. Strict laws which govern the acquisition of hunting guns already exist in some of the Gulf countries, but are not so strictly implemented. The other important point which should be mentioned here is the question of the falcons themselves and whether we can do something in respect of their conservation or not, and if we can help in minimizing the number of wild falcons trapped every year in the countries which legally permit their trapping, and the others which turn a blind eye and never shown the least strictness in this respect. Encouragement and support should be provided to the falcon breeding projects in the Western countries by the concerned governments and the official conservation



88- The place chosen to spend the night on the way to the North of Somalia. Most of the supplies have been taken out of the heavy duty vehicles, like the carpets where the Master and his friends will need to sit and spread their own bedding if they chose to sleep out in the open air, which is often the case when the weather is fine. The other big boxes that contain different essential equipment will also have to be offloaded . Somalia 1983.

societies and organizations to help with breeding as well as exporting the falcons needed for this sport everywhere in the world and not to put obstacles in the way of this important and expanding sport. It is not going to be helpful for conservation when the concerned conservation organizations keep watching the falcon breeders waiting for the chance to charge one of them with stealing falcon eggs or chicks from a nest, or trapping a wild living falcon in order to smuggle it to the Gulf region. On the contrary, the falcon breeders should be supported in many ways until they can breed many pure species of falcons and bring them up to the high standard of fitness and skill, by hacking them for a reasonable time so that they become qualified for Arab falconry, before they are exported to the Gulf falcon market. It is sur-



89- Trouble like this during the rainy seasons in areas of Eastern Africa are very common. In many cases such problems consume lots of time and effort. However, they do not affect the actual hunting plans of hunting because the trips are based on the previous year's experience. This takes into consideration the weather and seasonal variations. The preparations are always very well taken care of . Somalia 1983.



90- Kori bustards, *Ardeotis kori*, are caught by hand by the Somali native hunters, who are employed for this purpose. They use different very simple, but efficient ways to trap these large size wild birds without causing any damage to them. Heuglin's bustards could also be caught by Somali hunters by hand. Somalia 1982.

91- Heuglin's bustards caught by a small peregrine falcon, saved alive by the falconers. This large bustard does not usually defend itself when chased by a falcon or other raptors. They do not display their wings and do not fluff their feathers when they face danger. The local, young Somali professional hunters are capable of trapping these large efficient flying bustard alive. Somalia



92- Heuglin's bustards, a Black Bellied bustard and Little bustard, are all housed in this open roof enclosure. Their important flight feathers have been cut as a temporary method to prevent them from flying. Somalia, 1982.

prising how many people concerned with conservation do not know the right way to approach this issue as many of them love the idea that the Gulf Arabs are desperate for a peregrine or gyrfalcon coming from the West. This is because they do not know how big, for example, the falcon market is in *Pakistan* and how many wild falcons come to the Gulf every year from *Iran, Iraq, Syria, Egypt, Libya* and the Republics of the former *Soviet Union*. In many cases the price of many of these falcons would certainly come down to much lower than the average price for about the same falcon in any of the Western coun-



93- The Beira antelope lives in the mountainous areas of north eastern Somalia. They are trapped and caught by the local Somali people, who are employed for this purpose. Here, they are temporarily housed in this open roofed tent before transporting them to Doha, Somalia, 1986.

tries. Most of these conservationists imagine that any falcon that comes from the West would be very highly prized by Arab falconers. But this is entirely false, and it will be a long time before this is seen in its right and true perspective. If we are serious conservationists, I believe we must rethink this issue altogether. No Arab falconer is desperate or spends his days and nights dreaming of a falcon coming from the West and in fact we must completely revise Western beliefs about the Arab falconer's attitude even to the falcons that are considered or said to be trapped and came from the West, as they believe that, apart from the few advantages they might have, they are full of disadvantages. It is important to drop this idea and start again from the beginning by reconsidering the massive breeding projects organized by expert falconers who know what they are doing and fully understand what Arab falconers require in a falcon, those falconers who are obviously the target of the issue of falcon conservation in the West as well as some other parts of the world. The breeding of falcons should not be looked on as a get rich quick scheme earning mythological riches as in the One Thousand and One Nights of the East. It is not always a lucrative business. On the contrary, it is full of risks and unexpected hitches, and only those who love the sport can overcome the problems and difficulties related to it.



94- Beira antelope, *Dorcatragus magalotis* soon after its arrival at Al-Wabra, Qatar 1986. The female in front has no horns and the male posing in the back has short slender horns.



95- Beira antelope, *Dorcatragus magalotis*, was first introduced to Al-Wabra in 1983. It took a few years and many attempts to succeed in keeping, settling and then breeding from it. The Beira antelope naturally lives only in Somalia in a very small restricted mountainous area. It is a very nice looking, elegant, slim, small antelope. The colour of its coat adds to its beauty, which is an unusual light purplish blue, backed at the base with a reddish light fawn colour, which changes with the reflection of the sunlight. This photo is of an adult male in Al-Wabra, Qatar 1986.



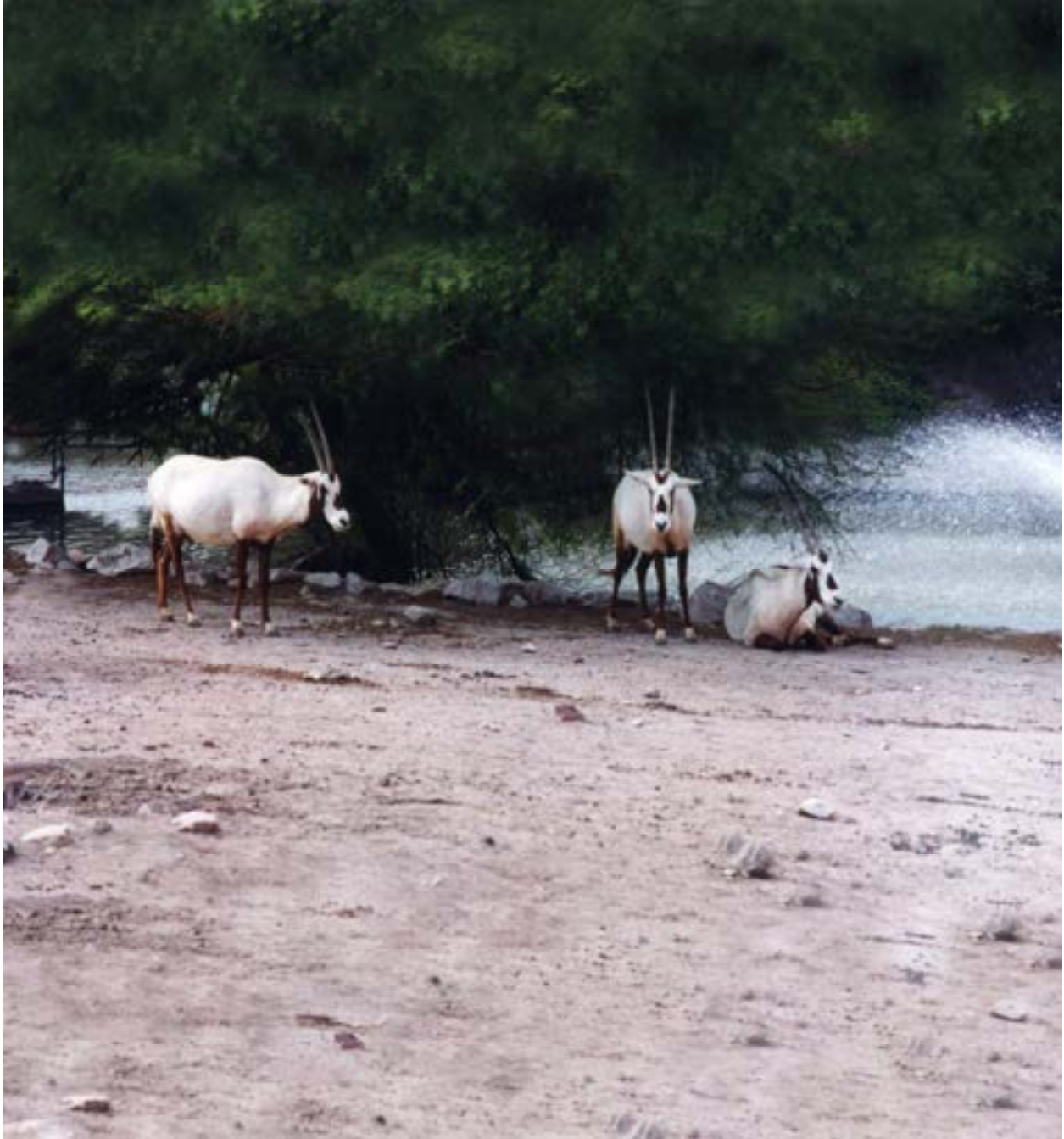
96- The Gerenuk, *Litocranius walleri*, This elegant long neck antelope is also known as the Giraffe antelope. Its natural habitat is the Eastern Central African Countries in Somalia, Ethiopia, Kenya and Tanzania. It is one of the difficult antelopes to adapt to living in captivity. It is a browser antelope, and does not normally graze from the ground like most of the other species. It stands on the hind legs and browse the leaves of the acacia trees. It has only been adapted to live in captivity in few famous zoos in the USA, and Al-Wabra was the only place other than those zoos, where the Gerenuk after several attempts, successfully adapted to live and breed. Photographed here in Al-Wabra, Qatar 1994.



97- Rhim, or Reem Gazelle, *Gazella subgutturosa*. This is the gazelle which used to roam over many parts of the Arabian Peninsula for thousands of years and which inhabits Ruba'a Al-Khali. There is no longer any record that it exists any more in the area, nor in any parts of the whole peninsula. Fortunately, it is found in captivity, in private collections and many zoos. Al-Wabra, Qatar 1986.

98- Saudi Dorcas Gazelle, *Gazella dorcas saudia*. This was more or less like the Rhim gazelle, but inhabited other parts of the northern and central areas of the Arabian peninsula. It has been known to many of the antelope researchers that this is no longer found in the wild. This group, which is found in Al-Wabra, is probably the only one found in captivity. Photographed here in Al-Wabra 1986.





99– Arabian Oryx or white oryx, *Oryx leucoryx*, is the famous historical animal of the desert of Ruba'a Al-Khali. It has been known for thousands of years to live in that desert, and was extensively mentioned in the poems of the famous old Arabian poets. It is probably the source of the legendary unicorn described in old fables. Very few Bedouins have had the chance to see this oryx living in the wild, before the first few expeditions, which were arranged to capture any left in Ruba'a Al-Khali during the early 1960s. The last few specimens which were living in the desert were saved and transported to Qatar and other Gulf countries. Others were transported to the USA, where they are now living and breeding in many zoos, and also distributed to other zoos all over the world. They are controlled through a very extensive detailed program of breeding and care.

Photographed in the USA, 1999.



100- Biesia oryx, *Oryx g. biesia*, captured in Somalia. Living and breeding in Al-Wabra. Al-Wabra, Qatar 1986.

101- Soemmerring's gazelle, *Gazella soemmerringi*, originally captured in Somalia since 1983, living and breeding in Al-Wabra since then. Al-Wabra, Qatar 1986.





THE ARABS AND CAPTIVE-BRED FALCONS

As previously mentioned, the Arabs have practiced falconry for many centuries with those wild falcons which they caught from the wild. Throughout ancient times there was no evidence to suggest that they have used falcons which were taken from the nest, before they were fledged, and before they had started hunting for themselves. There might have been attempts at taking young falcons from the nest in the old days, but they must have been very rare because it is well known that falcons very rarely breed in the Arab lands. Those attempts if they have ever happened, with the young hand-reared falcons must have been very unsuccessful hunters, or at least did not satisfy the desires of Arab falconers to get a keen, strong and experienced falcon. If it had been successful, then one would have expected Arab falconers to continue taking fledging falcons from the nests and pass it down as a recognized practice to the generations that followed.

It was probably during the late 1960s when Arab falconers started to hear about captive-bred falcons which were mostly being imported from Europe, Canada and, in a few cases, the United States. It must be said that, at the beginning Arab falconers were fascinated with, and impressed by, the external features and appearance of the captive-bred falcons, which were arriving from Western countries, especially the white gyrs. Normally, the wealthy falconers at that time were ready to pay very good prices for unusual good looking wild falcons. Those high prices are still paid by many wealthy falconers, and maybe even more is being paid than was paid several years ago. The price of a good looking captive-bred falcon, although not as high as that for a good looking trapped wild falcon, are still usually very rewarding and very tempting. They could have never reached these high prices if there was no demand for them by Arab falconers.

As the number of people who are practising falconry is clearly increasing, the demand for falcons is also increasing. Methods of hunting wild falcons are diversifying which, in turn, is causing severe damage to the wild falcon populations, mainly in Asia. There must be more than one way and method to introduce captive-bred falcons on a larger scale into the world of Arab falconry. The main weak point which is still limiting the use of captive-bred falcons in Arab falconry is the limited skill in flying, behaviour and hunting performance in a high percentage of them. Also, most of them need longer periods of time before they settle and calm down and become tame enough to start responding to the training. This is a very common characteristic of most of them, whether pure or hybrids, and a very high percentage of them tend to flap aimlessly, strongly enough to damage their feathers, and probably themselves, even before the beginning of training. However, it must be said that this could be avoided to a great extent and improve the characters of these captive-bred falcons before they are exhibited for sale. The falcon breeders should review the whole situation, starting from the time when the young falcons become





103- A captive-bred female juvenile peregrine falcon. A large size which weighs about 1200 gm. Doha, Qatar 1993.

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independent, and when they are taken from the breeding pens and released in groups of different young falcons in one flying aviary. I am not here to lecture the falcon breeders, but it is understood by all of them that falcons learn very quickly and they tend to learn much quicker and pick up from each other what we consider in falconry as bad habits. These young captive-bred falcons do not have in their brains as much experience as those young wild falcons, who have been flying on their own for months, experiencing different kinds of danger, and are more likely to know how to behave and react towards different situations. Wild falcons are usually more alert watchers, reacting quickly in every situation they are exposed to. They obviously think more before they react, and they have probably learnt this from their parents in the wild. Normally, captive-bred falcons spend a longer time with their parents, but their parents are usually unable to teach them from their experiences because they themselves have been captive-bred and have not much hunting experience to pass to their youngsters. Also they cannot do much while they are living in a limited size breeding pen. Improvements in the usual methods of raising captive-bred falcons, until the time of selling them abroad, should take place. All of these factors need to be reviewed by most of the falcon breeding projects in the West. Such improvements could involve changes in the design and building of these projects, which would certainly require more investment, which could well be far beyond the ability of many falcon breeders. The deals and sales of falcons overseas and in the Gulf Region are clearly always very satisfying for most of the falcon breeders these days. This is because of the high and continuously increasing demands for certain features in captive-bred falcons, which are sought after by Arab falconers. The falcon breeders should be aware that it is necessary to improve their breeding standards in order to keep the interest of the Arab falconers at its optimum. At the same time it must be said that some captive-bred falcons which were hacked by the breeders for days or weeks, in



104- An adult, female, white gyrfalcon, captive-bred in Germany. This was one of four captive-bred white gyrs imported from Germany by H.E. Sheikh Khalid bin Ali bin Abdullah Al-Thani in October 1982. Photographed in Doha, Qatar, April 1983.

partial or complete independence, proved to be of a much higher standard as flyers and hunters than those which were entirely dependent due to living in the breeding pens or flying aviaries. If the falcon breeders keep their eyes focused on the falcon market in the Arabian Gulf area, they must consider this fact carefully because, the Arab falconers have good access to the skillful wild falcons and also a very wide range of prices, they will not fully turn their eyes towards the captive-bred falcons until they start to show the characteristics which are necessary for every falcon to prove its ability in the field of falconry in those areas where Arab falconers practice their sport. The falcon market of the Gulf countries was always open, but not always lucrative. A sudden drop in prices used to happen within a day or two, and govern the whole market, making the Arab falconers very reluctant to bid for falcons which were exhibited for sale. This was, and still is, not very easily accepted and understood by Western breeders. It is entirely related to the number of falcons exhibited for sale in the market. The possibility of withdrawal of hunting permits by some countries due to different reasons, like regional diplomatic tension, unexpected political crises, or other issues related to conservation as encouraged by United Nations Organizations, could easily leave falconers unable to foretell the future of falcon prices, unless they receive confirmation from trustworthy people who are close to the decision makers. This information should be understood and appreciated by Western falcon breeders, and it must be remembered that the period between mid-September and mid-October is the best time to sell captive-bred falcons in the Gulf.

Bahrain was the first Arab country which started a falcon breeding project. The project, "*The Sulman Falcon Centre*" was designed to provide juvenile falcons to be used for hunting to a certain extent, and was not intended to provide all the falcons needed for hunting. It was a very good attempt to start breeding the falcons in the mid 1970s. It was successful in the early 1980s in breeding some peregrines. No matter how well those peregrines performed, it



*105– A White Juvenile female gyr,
bred at the breeding project of the
Ciesielski family.
Cologne, Germany.*

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was a good start. I have not heard much about how successful those captive-bred falcons have been in hunting. Unfortunately, it seems that the breeding and hunting results have not been encouraging. This eventually led to the closing of the Centre although the breeding program has apparently continued on a smaller scale at the main wildlife park “*Al- Areen*”.

As previously mentioned, although the practice of falconry in the Gulf is getting difficult in terms of finding areas or countries for good traditional houbara hunting, there are still new generations of young falconers in every Gulf state who have recently started practising falconry and I believe that the hacked captive-bred falcons could, to a great extent, fulfill the requirements of the new generation of falconers. Therefore, it is necessary to adopt a new approach, by supplying captive-bred falcons which are more skillful hunters.

Another project in *Saudi Arabia* was set up a few years after the *Bahraini* project, but I could not obtain reliable information on the project and what information I did glean was unofficial and unreliable. The least which could be said is that the few specimens produced in this project have obviously been hacked and therefore could result, to a certain extent, in more successful flying and hunting falcons. It seems very extravagant to set up captive breeding projects in the Gulf region due to the many disadvantages like the unsuitable climate and the continuous flow or import of wild falcons from different countries to the Gulf. These wild falcons, which are respected by Arab falconers, are not always expensive as in many cases, especially towards the end of the hunting season, could very easily compete with the normally fixed prices of the captive-bred falcons of the Western countries.

In conclusion, we can certainly assume that there is a good future for captive-bred falcons in the Gulf if the Western breeders adopt the right methods in breeding and raising their captive-bred falcons which must be based on concrete knowledge about what is really wanted by Arab falconers.

106– A saker gyr hybrid, bred by Michael Westwood, West Midland-England. Its external features are more of a saker than of a gyr falcon. This is a 3/4 saker gyr hybrid.





107– A black / dark gyr saker hybrid showing every feature loved by the Arab falconers who love the unusual dark saker falcons. B.C, Canada 1995.



108- A male gyr/saker hybrid, a pale-white colour. Most of the saker males have a tendency to be paler than the females. The sister of this male would be expected to be darker in colour. Doha, Qatar 1995.



109– A female 3/4 gyr/saker, bred by the breeding project of the Ciesielski family, Cologne, Germany. 1995.

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110- A juvenile female gyr/saker hybrid, bred by Leonard Durman- Walters, Scotland, 1995.



111- An adult female 3/4 gyr/saker hybrid. West Midland, England. 2004.



THE ARABS AND THEIR HUNTING FALCONS

The Arabs usually hunt with falcons which are trapped from the wild. The falcons are trapped in many countries and sent to the falcon market in the *Arabian Gulf* countries. However, some of the falcons are trapped by professional Arab falcon trappers in the *Arabian peninsula*. Until very recently, Arab falconers were against the idea of using captive-bred falcons, or those falcons which were taken from the nest, if there were any in the area. Until now Arabs did not breed the falcons they needed for their sport. The idea of breeding good hunting falcons in captivity is becoming valuable and should be considered by Arab falconers whenever it is possible. A few breeding projects were established from the mid 1970s in different Gulf countries. Some other breeding projects in Western countries have been sponsored by different people in the Gulf. None of the Gulf breeding projects were operating for commercial purposes and therefore, none of the falcons bred in those projects were seen in the falcon market. During the last few years thousands of captive-bred falcons bred in different Western breeding projects have come onto the falcon market, and the Gulf falconers have been responding very well to them. Most falconers in the *U.A.E* have tried these captive-bred falcons, whether pure or hybrids. The captive-bred falcons have almost become the official falcons of the country. Most falconers from the *Emirates* are happy with them but others still insist on the trapped sakers or peregrines. I heard that falcons which have been trapped from the wild are no longer admitted to any of the government falcon hospitals in *Abu-Dhabi* and *Dubai*. This has not been officially confirmed, but I learned it from many falconers from *Abu-Dhabi* who come to my clinic in *Al-khobar, Saudi Arabia*. In *Qatar* the situation has never been so explicit or so easily understood. Captive-bred falcons started to come into the country on a much larger scale since the mid 1990s. By the beginning of the new century, the Department of Environment began to handle and care for the importation of captive-bred falcons according to the very detailed regulations of **CITES** and, never eased the importation process for captive-bred falcons into the country if there were any of the documents missing. Sometimes it seems as if the regulations implemented are even more strict than they are in the Western countries, for no clear reason. Yet trapped falcons are still coming into the country from all directions and by different routes, sea, air and land. The regulations in *Saudi Arabia* used to be open for every kind of falcon, trapped or captive, until the year 2003, when it became almost the most rigorous, whether the falcons are trapped or captive-bred. It is getting difficult to bring falcons into the country and special permits from the environmental authorities are always required. However, both trapped and captive-bred falcons are found in the country, and many of the trapped falcons are trapped in various uninhabited areas of the desert. Falcons, falconry equipment, and different exhibits related to hunting trips, including packages of game hunting trips to *Africa*, have been regularly exhibited every year in the yearly Falcon Exhibition in *Abu-Dhabi* which is organized and sponsored by the *Abu-Dhabi* authorities. Many falcon breeders, hunting equipment and falconry furniture makers exhibit their products in this annual exhibition.



*112– A juvenile white captive bred gyrfalcon, one of the newly coming falcons belonging to H.R.H. Prince Turki bin Muhammad bin Fahd Al-Saud . The magnificent look of the gyrfalcon, and the courage exhibited by many of the captive bred gyrs and gyr hybrids, managed to attract many Arab falconers who were very fond of the saker. However, the lovers of the wild trapped sakers are still on the other side enjoying its company.
The Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia, 2006.*



113- The wild-trapped saker has always been a symbol of Arab falconry. It accompanied the Arab falconers for several hundreds of years and still maintains its own place, if not in the real hunting fields then in the memorized events of excellence in behaviour, patience, performance and good company. Doha, Qatar, 1988.

The Arabs and their Hunting Falcons

On many occasions, attempts were made during the late 1960s and early 1970s, by keen Arab falconers to import captive-bred falcons, particularly gyr and peregrine falcons. Those imported falcons came mainly from *Germany* and *Austria* in *Europe* and *Canada* in *North America*. Unfortunately, all of those falcons failed to fulfill their promise in terms of sharpness, strength and keenness in hunting. I have not heard of any of these nice looking falcons being successful in hunting a houbara, nor was any even close to the lowest standard of an average wild caught falcon. The Arab standard of success in hunting is not only measured by the falcon's ability to hunt a houbara once in a while, but its ability to chase the houbara whenever it sees it. Any falcon of less than this standard is considered a failure, and the Arab falconer normally lacks the patience and determination to bring the falcons which are not so keen, up to this standard. Due to the reason that most of the captive-bred falcons, which were imported from the Western countries during that time, were not able to display these high standards, there was, therefore, very little or no interest in them. They were mostly considered a failure even before they had been tried. However, things in this respect were very much changed during the late 1980s and early 1990s. Captive-bred falcons, whether pure or hybrids have started to appear in the falcon markets in the Gulf countries on much larger scale, and also they have been coming without that common undesirable feature which they often used to display to the Arabian falconer, that is the screaming habit which happens because of the unintentional partial imprinting of many of them. The admirable appearance of most of the captive-bred falcons, their usual large size and heavily built bodies, their reasonable prices compared to the wild trapped falcons, and the fact that they come to the market early, are all factors which have added to Arab falconers' recent inclination towards the purchase of these captive-bred falcons. They managed to attract the attention of many falconers who began to be willing to try them, but never compared to the wild ones except in very limited unusual cases. Rich falconers are still ready to buy them because of their



114– The Pakistani falcon traders, feeding their falcons after their arrival at the house of one of the Qatari falcon traders. Doha, Qatar 1993.

fascinating external appearance. The wild trapped falcons were and still are, up to the publication of this book, constituting a higher percentage of the falcons that come to the Gulf market every year. Both newly trapped juveniles and adults (haggard), in addition to the captive adult falcons which have spent a season or more in captivity, will be exhibited for sale in the market and the houses of the traders. Some of those falcon traders operate in *Syria, Iraq, Iran* and *Pakistan*, and many of them are well known to the Arab falconers, and most of those traders have their own contacts in Gulf countries.

During the 1970s and 1980s, *Pakistan* was the main country which exported thousands of falcons every year to different Gulf countries. This is obviously because both, the falcon trappers and traders are very common in Pakistan, and the business of trapping and selling the falcons is clearly a lucrative profession for them. There is also no strict legislation concerning the conservation of wildlife and preventing the export of falcons. Iran, Iraq, Syria, Turkey and Egypt come after Pakistan as exporters and suppliers of falcons to the Gulf. Also, some peregrines and to a lesser extent sakers come from *Libya* to the Gulf markets. They were said to have been smuggled across the borders into Egypt as a first step and then go by air to the different Gulf countries. Some lanners and peregrines are trapped every year in Saudi Arabia on the eastern shore of the Red Sea and then either sold in Saudi Arabia, or taken to other Gulf states. Iraq and Iran have some restrictions on the export of falcons, and most of them which come from there are either smuggled across the borders, in the case of Iraq, or through the Gulf, in the case of Iran. Falcons which come from Turkey are usually small peregrines, small forms of the saker and the undesirable forms of lanners. These come either directly from Turkey or smuggled into Syria to be exhibited for sale in *Syria*, and claimed to be trapped in *Syria*! Or they will soon be sent to the Gulf states. These come early in the season, sometimes as early as mid-August, and many falconers believe that



115- The feeding of the falcons on the "Shabba" while hooded. Some of the falcons have already dropped off their hoods when they heard the noise around them which they recognized as feeding time. Doha Qatar 1993.

The Arabs and their Hunting Falcons

these could have been taken from the nests even before they started flying and hunting for themselves, but they have not shown any signs of being imprinted or being inexperienced flyers. Since the early 1990s *China* started to be known and considered as a recognized supplier of falcons to the Gulf countries. China has been very well acknowledged as a source of respected, large wild trapped saker falcons. A very high percentage of sakers which come from China are very well admired by Arab falconers. They are good looking falcons and perform well as hunters. These Chinese falcons are smuggled into Pakistan through the borders, despite very rigorous Chinese legislation related to dealing and trading in wildlife in general, and falcons in particular. I know a few falcon traders who have been to China several times during the last decade. According to what I have heard from them, they mentioned that Pakistani falcon traders have been smuggling falcons from *China* for more than two decades, and they take them into *Pakistan* to be exhibited for sale in the falcon market as having been trapped in *Pakistan*. Those falcon traders described to me on several occasions, how common it is to see *Pakistani* falcon traders in major *Chinese* cities as well as poor remote villages. It is not unusual to see people from different parts of the world for trading reasons in *China*, but the presence of those people in poor, remote villages was considered by these falcon traders as very clear evidence of involvement in wild falcon trading and smuggling. They claim that they have recognized many people who they know to be *Pakistani* falcon traders. Obviously many of them have already been caught by the *Chinese* authorities and have been put in prison. *Mongolia* has also occupied a prominent place in the list of countries which supplies wild trapped falcons to the falcon markets in the *Gulf* countries. Traders who import falcons from *Mongolia* claim that they have to pay the *Mongolian* authorities the sum of US\$10,000 per falcon as a fee before they are granted a licence to trap one falcon. It does not matter to the *Mongolian* authorities which falcon species or subspecies it might be, and the number of falcons per person which could be permitted to be trapped is obviously not limited, as long as the fees are paid to get the permit to trap and export the falcon. Those falcon traders claim that they spend a long time before they trap a falcon which is worth the amount paid for the licence to export it, so they release many of the falcons which they trap back to the wild if they think they are not worth the money invested in them, nor the hassle of taking them home for resale.

Stitching the eyelids is a simple, but very effective way to prevent the falcon from being able to see its surroundings and react violently when it is still wild and aggressive. The hood might not be enough because it could easily be torn off by the falcon when it scratches its head violently. However, stitching the eyelid is a painful operation and might lead to harmful, damaging sequences like eye damage when it is not done cautiously and properly or, when the thread is not cut and removed from the eyelid carefully and, when its place is not well cleaned, disinfected and attended. It is still practiced by falcon trappers as a good way to blind a falcon temporarily during the first few days of captivity. Stitching the eyelids is performed as soon as the falcon is caught by passing a thread through the lower eyelid of one eye, which is then tightened and pulled upwards to go over the top of the

116- A juvenile peregrine falcon, which has just arrived from Iran and just been fed, while it still has its eyes stitched and the original falcon trapper's ropes fitted on its legs. Normally these stitches would be taken off the eyelids after the falcon starts accepting the hood and gets used to it. In some other cases, they are left until the falcon is sold.

Doha, Qatar, 1983.



117- *Stitching the eyelids is a very efficient method to prevent the falcon from inflicting any damage on itself and its feathers. It helps to a great extent in keeping the falcon as calm as possible and it is certainly better than hooding it once it is trapped. The falcon accepts it much more than the hood, which is probably because it does not feel the weight of the hood on its head and the tight hood braces. For many years it was thought that only the Iranians tended to stitch the eyelids of the newly trapped falcons, until the falcon traders started to go to China and saw the falcon trappers doing the same. This is not only because it makes the falcon calmer, but it is also because they cannot risk carrying hoods with them when they are wandering in the plains to choose a place where they will settle waiting for the free flying falcons.*

Doha, Qatar 1995.



falcon's head and then down on the other side towards the other eye, to pierce its lower eyelid. It is then tightened again until it pulls the lower eyelids upwards to cover the eyeballs. In this way both eyes will be covered by the lower eyelids. This technique of stitching the eyelids has been practiced lately by the Chinese who are trapping falcons, probably because they do not have hoods or maybe they do not want to carry hoods with them when they are in the prairies looking for falcons, to avoid being charged with the offence of trapping falcons which is a serious offence in China. I have seen many falcons coming from China that have had their eyelids stitched.

The saker and peregrine falcons which are trapped in *Iraq* and *Iran* are always valued by Arab falconers because, they believe that they rarely fail in hunting the houbara. The reason for this belief is probably because they think that, as long as there are plenty of houbaras in both of these two countries, then, as they are expecting the falcons which pass over the lands of these countries during migration, they have certainly had the chance to hunt the houbara. It is said that during the 1950s and early 1960s, some of the rich Sheikhs used to have good contacts with certain falcon traders in these two countries, and it was known to those traders which falcon was sought by certain Sheikhs, and therefore they kept those falcons for a certain customer, and the traders tended to inform the Sheikh as soon as the falcon came into their hands, describe it to the Sheikh and make a deal regarding the price even over the telephone. If the deal was approved by the Sheikh, then he would be morally obliged to pay for it even if it died before it reached him. Should the falcon die before it was collected by its new owner then the new owner would be expected to pay either the full price or a considerable amount in compensation. This was probably true to some extent during those days when the monetary value of the falcons was not as high as it is these days. The prices of falcons have increased in recent years, so there is no room left for such practices. So someone has just recently become involved in the falconry business might not take these old traditions as seriously as they did in the old days and only consider them as a kind of exaggeration told by the older generation, although it must be admitted that exaggeration should never be ruled



118- A group of saker falcons which came from Iran to the Doha seaport on a fishing boat. These are juveniles and haggard. Sometimes adults who were caught late in last year and could not be smuggled at the time will be sent with these falcons if it was a good quality falcon. Iranian falcon trappers will send their trapped falcons to some of the falcon traders they know on a credit basis when they trust them. Doha, Qatar 1994.



119- A miserable looking valuable juvenile saker falcon which has been trapped in Iran and had to be restrained for several days while being smuggled through the Gulf until it reached Doha seaport. A falcon trader, who is expecting falcons to come from Iran, prays day and night not to have them confiscated on their way and that they arrive safely. Doha, Qatar 1994.

out in many stories which are told by Arab falconers in general.

It is not always easy to distinguish the saker or peregrine which has been captured in *Iraq* or *Iran* from one which has been trapped in *Pakistan*, although some falconers claim they can. This could be true with some forms of saker falcons. In general, falconers claim personal impressions about falcons of different origins and, this is clear when they start telling stories about some extraordinary falcons which they have seen in the past. Falconers always exaggerate when talking about white, very pale, or black (*Sinjari*) saker falcons. *Pakistani* falcons usually came earlier and in larger numbers than those from

other countries. Usually the early specimens were lanners, and wakri al-harar. Frequently some good specimens of sakers and peregrines could possibly come as early as the other early falcons. Some Sheikhs who used to go to *Pakistan* in groups for falconry sometimes traveled earlier than the real hunting season in order to buy their falcons from the *Pakistani* market and tame and train them there. The falcons from *Pakistan* come with simple, primitive leather jesses fitted on their legs, usually their eyelids are not stitched and they are only hooded. While they are still wild they frequently bite their jesses. Therefore, the usual cotton jesses, "Sbouq" used by the Arab falconers are not strong enough to resist the excessively strong bites of the wild falcon. The falcons which come from other countries, especially those from *Iraq* and *Iran*, would either have leather jesses or strong thick cotton ropes fitted on their legs but their eyelids are almost always stitched. The falcons which are imported from *Pakistan* usually come in a much better condition than those coming from *Iran* because they come by air through the airports. Those coming from *Iran* travel by different unsuitable methods of transportation, always restrained in the *Guba*, the cloth jacket and hidden somewhere between the goods in the small commercial or fishing boats which sail in the *Gulf*. They mostly come with different injuries of the wing joints and the keel bone as well as damaged feathers.

During the first two weeks of September every year, the new falcons appear in the market and very frequently some of the captive falcons of the previous year or years which have finished their moulting might also appear and be exhibited for sale. Of course the latter are adult falcons

120- A female, haggard, pale saker falcon, trapped in Iran and smuggled through the Gulf to Doha, Qatar. It still has the original trappers' ropes on its legs, and displays the effects of stress on its eyes with some tears which have obviously caused some of the hood colours to stain its cheeks. The stitches were taken off after its arrival and the hood tried on its head. Most of the falcon traders would be ready to remove the stitches from the eyelids of the high quality sakers, hood them, change their ropes by the good light weight jesses and leash. Then they are taken to be shown to a wealthy falconer who is expected to offer a good rewarding price for them. Doha, Qatar 1994.



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and are demanded by some falconers for use early in the season if their falcons have not finished moulting. During the 1980s and 1990s, there were always good chances to see the trapped falcons at the time of their arrival at most of the Gulf states airports, especially during the months of October and November at the arrival halls of the airports, when the flights from Pakistan arrive. Most of the falcons were coming on wooden perches, padded with cheap carpet or as simple as rough canvas. This kind of perch which is called “*Shabba*”, and could be used to transport three to four falcons depending on its length which normally does not exceed one meter. In the case of falcons which flap more than usual, they will be restrained with the “*Guba*” which is a special modification of a cotton cloth-like jacket used to partially immobilize and control the falcon without anesthesia, and in this way it can be placed in a small well ventilated box. These methods can be used for land, sea and air travel. In the last ten years some falconers have started to use wooden framed cages covered with stretched canvas on the sides and the top and no metal mesh is used, to avoid any potential injuries which might be inflicted on the falcon because of the metal mesh or damage to its feathers if it flaps inside the box compartment. These wood and

canvas cages could be of the size that can accommodate up to six falcons, separated inside by plywood or stretched canvas partitions. These kinds of cages were not used before the 1990s, and they are now used for transporting falcons by air to different distant countries for hunting. This is of course when the falconers are flying to their destination by the ordinary commercial airlines. However, when they travel by their own private jet or a rented one, they carry the falcons on the *Shabba* and on the fist. Those falcons which come



*121- A juvenile, pale, medium-size, female saker falcon. Most of the pale sakers whose backs are a plain colour are of small to medium size. They rarely exceed 950 gms in their normal training and hunting season. They are still the favourites of so many falconers in Saudi Arabia.
Doha, Qatar 1988.*

from *Iran* to the Gulf, usually experience very stressful conditions, because they would probably have been restrained for several nights, since they have to be smuggled even inside Iran if they are to be transported from one area to another. This is in addition to the most difficult part of their journey when they have to be smuggled across the Gulf in small fishing and trade boats, (Fig.116 & 117). I once saw a peregrine falcon which apparently had managed to escape from the *Guba* and flapped while its eyes were stitched and accidentally fell into a gasoline barrel which was nearby. The peregrine arrived full of gasoline fumes, with its breath smelling of gasoline, and it eventually died two days later, even though it was thoroughly washed soon after its arrival. Many peregrine falcons of different forms are annually trapped all over the western coast of *Saudi Arabia* on the *Red Sea* and the middle and north of the Arabian Peninsula. Many sakers are also trapped in different parts of the middle and northern Arabian peninsula, many of these are considered good quality sakers, and some are pale. The local princes and rich falconers could pay very high prices for them. Trapping falcons is legal in Saudi Arabia and all the other Gulf countries. There are many professional falcon trappers in Saudi Arabia and they seem to be busy during the season from September to November. They always appear to be on a hotline with the rich, keen falconers and falcon traders who are ready to bid for the newly trapped falcons.



122- A three year old adult, pale saker falcon just about to be placed in the moulting room for a fourth season. Not many sakers like this have come to the market lately. Doha, Qatar 1985.

Very few falcons, mainly juvenile peregrines, are trapped in Qatar or the Emirates each year, and usually very high prices are paid for them by certain wealthy Sheikhs. This does not necessarily reflect the real value of the falcon, but could be considered as a kind of patriotism which enables the Sheikhs to



123- A haggard female peregrine falcon, said to have been trapped in Iran and smuggled into Qatar through the Gulf. Doha, Qatar 1989.

display their love and affection towards their country people and strengthen their ties with them. This is why the falconers in Qatar always tend to call the peregrines which have been trapped in Qatar “Al-Qatari”. Although none of these trapped juvenile peregrines has ever been remembered to be an extraordinary hunting falcon, Qatari Sheikhs are still willing to happily pay high prices for them. In many cases they try to create excuses to convince themselves that these falcons have been such strong and keen hunters to be able to migrate across the Gulf, and come to the semi arid land of Qatar, in which the falcon will not have easy access to natural living prey, whether birds or mammals. This is true to some extent, but certainly the hunting performance of these peregrines has never managed to be outstanding, while many others which were small peregrines failed to win the general approval of the



124- A juvenile peregrine falcon trapped in Qatar, called “The Qatari” like every falcon trapped in Qatar. Doha, Qatar 1988.

falconers. There are no professional falcon hunters in Qatar, so those wild falcons, as well as trained falcons which are lost, are almost always trapped or simply called to the lure in the case of lost falcons, by falconers who are roaming all over the Qatari peninsula. Young falconers spend too much time in informal expeditions almost every day looking for the scarce chance of a landing houbara. During the hunting season many falconers keep hoods, jesses, a small hunting net and live pigeons in their four wheel drive vehicles in case they spot a free flying falcon. In recent years, some interested falconers started to employ one or two falcon trappers who have some experience in trapping wild migrating falcons, who are mostly Iranian and have been practicing this profession in Iran. They provide them with all the requirements needed for trapping wild falcons. The hideouts of these falcon hunters would usually be on any of the small islands off the northern shore of Qatar. This newly adopted practice is still not very successful or lucrative as very few if any wild falcons reach the area. Some new regulations and legislation have been passed and were enforced by the government, which govern the practice of hunting in general and include shooting prey and using Salukis for hunting hares which have been almost hunted to extinction. These regulations and legislation could probably be enforced on certain categories of people, but not on every hunter or falconer. Some charges could lead to imprisonment. The Government has decided to identify and set aside some environmentally protected areas in the Qatari Desert, in which some valuable rare species of gazelles like the *Reem gazelle* have been released. Unfortunately, these areas were clearly not properly protected and were not provided with the necessities for the gazelles to easily find feed, water and thrive in peace, as might be expected to be an important part of this plan. So those gazelles were sadly exposed to various stressful factors created by falconers and other hunters who did not appreciate the value of these rare gazelles. Many of them have been chased to death or hunted by people who apparently love nothing more than wandering about in the desert and satisfying their utmost ambitions and dreams by capturing or killing prey.



125- A juvenile "Mathlooth", a small size female peregrine falcon, trapped in Saudi Arabia. Riyadh Saudi Arabia 2003.





127- A pale-reddish three years adult female Saker falcon, said to have been originally trapped in Iran.
Doha, Qatar 1988.





129- A rare pale first year haggard female saker falcon, trapped in Iran. Doha, Qatar 1988.



130, 131 & 132- This is a coincidence which does not frequently happen. Three juvenile female saker falcons came on two different occasions (130 & 131 came together) and 132 came about two weeks later. They were all smuggled through the Gulf from Iran where they were originally trapped. When we look at them in these separate photos we can hardly detect a difference between them, and many



*experienced falconers thought they were the same falcon when they saw the pictures of the first and the second falcon hanged on the wall in my clinic. These three saker falcons are of the most memorable falcons which I encountered in my life with saker falcons, and were some of the very few which I would have loved to own myself.
Doha, Qatar 1984.*



133- A pale/white three years adult female Saker falcon, originally trapped in Iran . Doha, Qatar 1989.

The situation in the Emirates regarding the trapping of wild falcons, or even hunting for houbara, is not very well known, nor is it the same all over the different Emirates. I heard different stories from falconers in the Emirates and, as usual, some say that it is totally illegal to hunt for the houbara and all the other wild prey, which are normally sought after by Arab falconers, while others say it is only forbidden to hunt for the hare. The charges, if someone is prosecuted are obviously very harsh and tough, as mentioned by the local falconers. As previously stated, falconers almost always tend to exaggerate when they describe most things related to falconry, but when they do not like or do not fully understand a subject I tend to credit them with what has been said. However, it is very well known that any local people in the Emirates will receive a very generous reward from the Sheikh if they should ever discover a houbara while wandering around in the desert. All they need do is phone the Sheikh and give its exact location to one of the Sheikh's employees. His role will end and he will earn his reward when the Sheikh or his men see the houbara walking in the desert. Then, the falconers would have to wait and guard the houbara until the Sheikh comes to see it and release his falcon after it. Should the houbara fly off before the arrival of the Sheikh, it is usually unlikely that it will go very far unless it senses danger. In such a case they will have to keep in touch with the Sheikh's men in order to inform them of the different location.

Since ancient times, Arabs have used falcons for hunting different birds and mammals. The falcons which were used have changed over the years according to the availability of both falcons and prey. At the time when the hare was considered to be a valuable prey, whether it was being hunted for food or sport, goshawks, buzzards and occasionally eagles were used. Merlins and Kestrels were obviously also used by the Arabs for falconry but to a lesser extent, and it is not clear for which prey these two very small falcons were used. It is only known because they were mentioned in the old manuscripts. The different birds of prey which were used by the Arabs in the ancient times before they limited themselves to the use of sakers and peregrines have been briefly mentioned in previous chapters. The Arabs obviously learned to use the goshawk and eagles in the old days from the emperors, nobles and governors of neighboring European or Asian States. Those birds which were used were able to hunt hares and some small young gazelles. Today we find that bustards, in all their different subspecies, especially the houbara, stand at top of the list of prey that are sought by Arab falconers, next comes the stone curlew and then the hare. Gulf Arabs are only interested in hunting the houbara and they are only interested in falcons which are successful in hunting it. Falcons known to be good and keen hunters are always sought, to be bought and kept for the next hunting season if the present season has finished. I am talking here about adult falcons, which have previously spent one or more hunting seasons with the falconers, and proved to be expert and keen in hunting their prey.

Whenever a Gulf Arab looks at a certain falcon, the first question he will ask is whether the falcon has hunted the houbara, and how well it has done. Of course this does not apply to juveniles, or adults caught in the wild, because the falconers buy these without knowing their skill. The dependence on trust between the buyers and sellers is very clear. It is related to self-respect and reputation. The seller's word is his bond, particularly if he is well known.

In the past, to fully enjoy the sport of hunting houbaras, the falconer should either take a saker or a peregrine falcon on his hunting expeditions. Although some other species of falcons, like the lanner and the lagger, have proved to be efficient and skillful, which is quite a feat, considering they are only about a third of the size of their prey, they never compete with the sakers or peregrines. In terms of price it is impossible for small falcons to compete with large ones. Interest in buying them is limited, whatever their skill or reputation. In recent years, it has been getting very popular for many falconers to have totally changed their old attitude and moved towards a preference for pure gyr falcons, gyr hybrids, and, more specifically, towards the gyr/peregrine hybrids. I cannot give one common answer to explain why falconers now prefer gyr or captive-bred gyr hybrids to wild sakers or peregrines. Some very keen fal-



134- A female juvenile pale "Ashgar" saker falcon, Doha, Qatar 1985.



135- An "Ashgar" juvenile female Saker falcon trapped in Iran. Doha, Qatar 1988.

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coners try hard to obtain wild gyrs, which many Westerners would think are rather difficult to obtain but, in reality, they are available to certain wealthy falconers who are always ready to pay tempting prices to get such rare wild falcons. However, there is always the possibility that many of these supposedly wild gyrs are captive bred but only hacked for longer than usual, or they were exposed to more direct sun light. I have seen many gyrs which were sold as trapped falcons, but none of them were very much different from the captive bred gyrs. The physical appearance of both captive and trapped falcons also plays a very important role in setting a value for them.

The saker used to be the most popular falcon because of its elegance, pride and its toleration of ad-

verse conditions, both in the hunting and moulting seasons. Saker falcons usually finish moulting earlier than the peregrines because they start earlier. Peregrines, on the other hand, rarely start moulting before July or August, or finish before the real hunting season is half over. During their first moulting in captivity some peregrines, particularly juveniles, might not moult the last two or three primaries. This explains why the price of the juvenile peregrine drops to less than 10% of its original price when the hunting season draws to a close. When juvenile peregrines first arrive on the market, their prices, although differing from one Gulf country to another, will be very high as an average and probably beyond the reach of many average falconers. In Qatar and Bahrain, where they are mostly demanded by many wealthy



136- A very pale, haggard, male saker falcon. Male sakers are generally paler than females. It would be difficult to find a female as pale as this male saker. This was trapped in Iran, and still showing the peculiar alert pose of an adult caught from the wild. This is what is normally called "Kobaj", and, if it was larger in size, would be called "Niai'ry" or "Mathlooth". Photographed in Doha, Qatar 1985.

falconers, the price of a good size female juvenile peregrine falcon is probably more than US\$12,000, this was considered a good price in the late 1990s, and it could be higher in some exceptional cases, despite the invasion of the market by the captive-bred gyr/peregrine hybrids, which are considered the best substitute for the juvenile peregrine falcon.

The position of the peregrine falcon in Saudi Arabia is far less important and not so sought after by keen, wealthy falconers. This is why the prices of both juvenile and haggard peregrines are not as high as in Qatar or Bahrain. Out of as many as tens of high quality saker falcons owned by a keen wealthy falconer in Saudi Arabia, there will be a very little chance to see a peregrine falcon amongst them. Kuwaiti falconers are quite like Saudi falconers, but they are said to be keen to use guns to shoot the houbara, and for this they use their technique of releasing the falcon and leaving it hovering over a certain spot, thus trying to push the houbara to fly off so that they get a good chance to shoot it. UAE falconers are usually a mixture of both inclinations and it is very common to see falconers who are interested in both species to the same extent. They almost always tend to follow in the steps of the Sheikhs in whatever species of falcons they use and this is why, when the Sheikhs of the Emirates started to use hybrid falcons and pure gyrs, the general falconers obviously did their best to copy them and now they are considered by the other Gulf falconers as experts in the best ways of keeping a hybrid or gyr falcon and maintaining its

137- A three year old, adult, Ashgar, male saker falcon. It is said to have originated from Iran. Most wealthy Arab falconers keep these pale, nice looking male sakers to teach their young sons the art of falconry, otherwise they would not keep them for moulting. However, many of these nice looking male sakers have proved to be good hunters in places like Pakistan, where there are enough houbaras to have the chance of releasing once or more. Doha, Qatar 1985.



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optimum conditions for hunting. Whether this idea about them is right or wrong certainly depends on the UAE falconer himself and whether he is really knowledgeable or not, since some of them do not know that much even about the origin of these hybrid falcons or even what the term “hybrid” means! However, I have seen many UAE falconers who come to my clinic, still carrying the trapped sakers or peregrines exactly as their fathers and grandfathers did, and when I asked them their opinion about captive bred falcons, whether pure gyrs or gyr hybrids, they do not seem to like them based on the extra care these captive bred falcons obviously need. It seems that there are many falconers who think the same way, especially those who are not very careful in taking care of their hunting falcons.

Good sized juvenile female peregrine is still very much sought after by many Arab falconers in general. Many Arab falconers believe that the peregrine is the right answer for the fast, shy houbara, which, in most cases, is considered somewhat difficult for the average saker falcon. It could be said that peregrines are still having their position in the list of the falcons used by the Arab falconers. Although, their prices might not be as high as they were during the early 1980s, which was certainly affected by the comparatively much lower prices of some of the captive bred gyr hybrids, but we still hear about so many peregrine falcons priced as high as their prices during the early 1980s. As previously mentioned, towards the end of the hunting season, peregrine prices begin to fall, which is true in almost all the juveniles which are expected to go through their first moulting season. This is because, they usually spend two to three months of the next hunting season before they are ready to hunt again. They usually start moulting so late and rarely finish before the end of January of the next year, if they are going to moult their important primary feathers at all. I have come across hundreds of peregrines which have kept the ninth and tenth primary feathers of their juvenile plumage until the next moulting season. It is very com-

mon to see a first year wild adult peregrine, which was trapped during November or December while still keeping the tenth, ninth and probably the eighth old primary feathers. They will usually keep these unmoulted feathers until the next moulting season or even sometimes until the following moulting season. Another factor that affects the prices of the peregrines at the end of the hunting season is that, there is always a very high possibility that the peregrine falcon will be lost during its first or second moulting season due to health problems. I have rarely seen peregrine falcons which are older than five or six years, apart from “*Najla*” which was a fifteen year old peregrine at the time of writing this chapter in the summer of 2007, and is still healthy and living. But her owner, Prince Mansour bin Abdullah bin Abdulrahman Al-Saoud,



138- An unusual large, female peregrine falcon, trapped in Iran and smuggled through the Gulf into Qatar. It was very unusual to have a large size female like this. If this had come these recent years, most falconers would have suspected it of being a gyr/peregrine hybrid. Doha, Qatar 1983.

no longer releases her for hunting. Prince Mansour also has “*Salman*” which is a saker and has reached twenty-four years of age, then eventually died in summer 2006 due to undiscovered and untreated mouth infection. This is probably why Arab falconers have a bad opinion and impression about peregrines, and rightly so, because they have to endure the stress of spending at least five months during the summer every year in the excessive heat of most of the moulting rooms. Peregrines also have other problems like their tendency to damage their feathers because of their frequent bathing even when they are hooded, which causes them to hit the sharp edges and therefore the incidence of damaging the feathers is more frequent. Arab falconers are not always ready to accept the challenge of keeping a falcon for a long period without being able to use it for falconry. Because all the Arab falconers agree that the peregrine could very easily catch diseases or deteriorate in its general condition or not moult properly, they do not like the challenge of buying or keeping peregrines for long, especially if those peregrines were not very well known as excellent hunters and flyers. This is why peregrines experience a very sharp drop in their prices when the hunting season reaches its end.

Arab falconers believe that sakers resist sudden climatic changes and stress factors much better than peregrines, and have a greater resistance to disease. They have a saying that “the peregrine is a delicate glass”, and also call it “*Al-Abd*” which means “*The Slave*”, even if it was an excellent hunter and never let its master down, while the saker which is called “*Al-Hur*” meaning “*Free*” would be treated as a friend who is not supposed to be insulted, whatever its hunting ability. The peregrine’s performance in hunting is considered by falconers to be a duty which must be done by a slave, while the saker is obviously something different and the falconer often prays to God for a good performance from his saker “*The Friend*”.

Arab falconers believe that the ideal saker should have a pale to light chestnut colour on the head, front of neck and breast. The colour of the back and tail should be light chestnut to light reddish, and it should be large in size. However, partial albinism of the falcon plumage, which is not common, is not appreciated by falconers and never considered a desired feature. If the saker is only medium in size, like a small female, or small, which is usually a male, it will be far less popular and will not be recognized as a saker at all. So these are normally called

139- “Najla” is the name of this adult peregrine falcon, which was trapped in Saudi Arabia, and owned by Prince Mansour bin Abdullah Al-Saud. It is about seventeen years old and was still alive in 2007, but it has not been released for hunting for more than three years. Photographed here on 2003 when she was 13 years old. Riyadh, Saudi Arabia. November 2003.



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other names like “Ni’airy” or “Kobaj”.

A saker with dark to black plumage will also be highly prized, but not as much as the white or very pale saker. It is known as “Adham” when it is not very dark, which in Arabic refers to a more respected or diplomatic meaning of black, and when it is very dark and rich in colour it will be referred to as “Sinjari” and this name could be given for many reasons. Present Gulf falconers believe that the name Sinjari is derived from the name “Sinjar” which is a mountain in the north of Iraq, and it seems that everybody believes that this dark falcon comes from this “Sinjar” mountain. However, we know that these dark forms of saker falcons normally inhabit the Altai mountains of Mongolia, from which their common name “Altai falcon” is derived. It is difficult to believe the idea that this falcon migrates from the Altai mountains to the Sinjar mountain area, but obviously this falcon has been coming, although very rarely, over the years and are remembered by the old falconers and their ancestors who recount tales after their passing away. I myself have heard the stories which were told to me by different old Sheikhs, who were very keen falconers, that they obtained these very dark “Sinjari” falcons from Iraq and, those were supplied to them by certain old Iraqi falcon traders who suggested that these were trapped in the north of Iraq! But I must say that during the time I spent in the Gulf in very close contact with the falconry business - approximately quarter a century, I never heard of any “Sinjari” falcon that was originally known to have been trapped in Iraq, while I have seen many which came from Pakistan,

especially at the time when Mongolia was in a state of total isolation from the rest of the world, and it was very difficult to even dream of getting any falcon from there. The other explanation which could solve the mystery of only the name of this Sinjari falcon, is a linguistic explanation. We know from the old Arab-Islamic manuscripts that the name “Sinqur” was given to some rare large falcons, which were sent by the kings and nobles of the northern territories to the Khalifate of the Islamic State in Baghdad during the Abbasid age. Those large falcons, as their descriptions suggest, were gyr falcons or probably “Alticus falcon”. It is said in those manuscripts that the colour of these falcons could be white or dark. The name “Sinqur” could change over the years to “Sinjur” which is the same, but with different dialects, and is not unusual for dialects to vary according to the different areas in the region. It could eventually be considered to have been derived from the name of the mountain of “Sinjar”. This has not, and could not be considered as definite, but is only an attempt to solve the mysteries surrounding this name which has



140- “Raya” is the other adult peregrine owned by Prince Mansour bin Abdulrahman Al-Saud. She was nine years old in 2007. Photographed here on November 2003. Riyadh, Saudi Arabia.



141- A juvenile, Sinjari saker falcon, sold in the Pakistani falcon market. It was very attractive and unusual at its time, and may become even more unusual in the future. Photographed in Doha, Qatar 1984.

been given to only this dark form of saker falcons. However, when I look at the map of the world, and concentrate on the routes which the saker falcon chooses to take in its migration south-westward, I cannot rule out the possibility of having a saker falcon which had migrated from Mongolia to the north of Iraq, since I have seen many sakers which were confirmed to have been trapped somewhere in the Arabian peninsula or north of Africa, while their shape and form suggest that they must have originated from different areas of central and east Asia. Some old falconers claim they have seen specimens of this Sinjari falcon with a few feathers on their toes but I have not actually been able to verify this from the many specimens I have seen. When they were describing this feature of feathered toes, they were apparently very excited as if it alluded to something that enhanced the value and rarity of the falcon they had seen. The photographs which I have taken of specimens of saker falcons in the Avian Section of the British Natural History Museum, Tring 1981, could help in verifying some aspects of the different forms of saker falcons which have been collected from different parts of its habitat and where it migrates, (*Fig. 245-264*).

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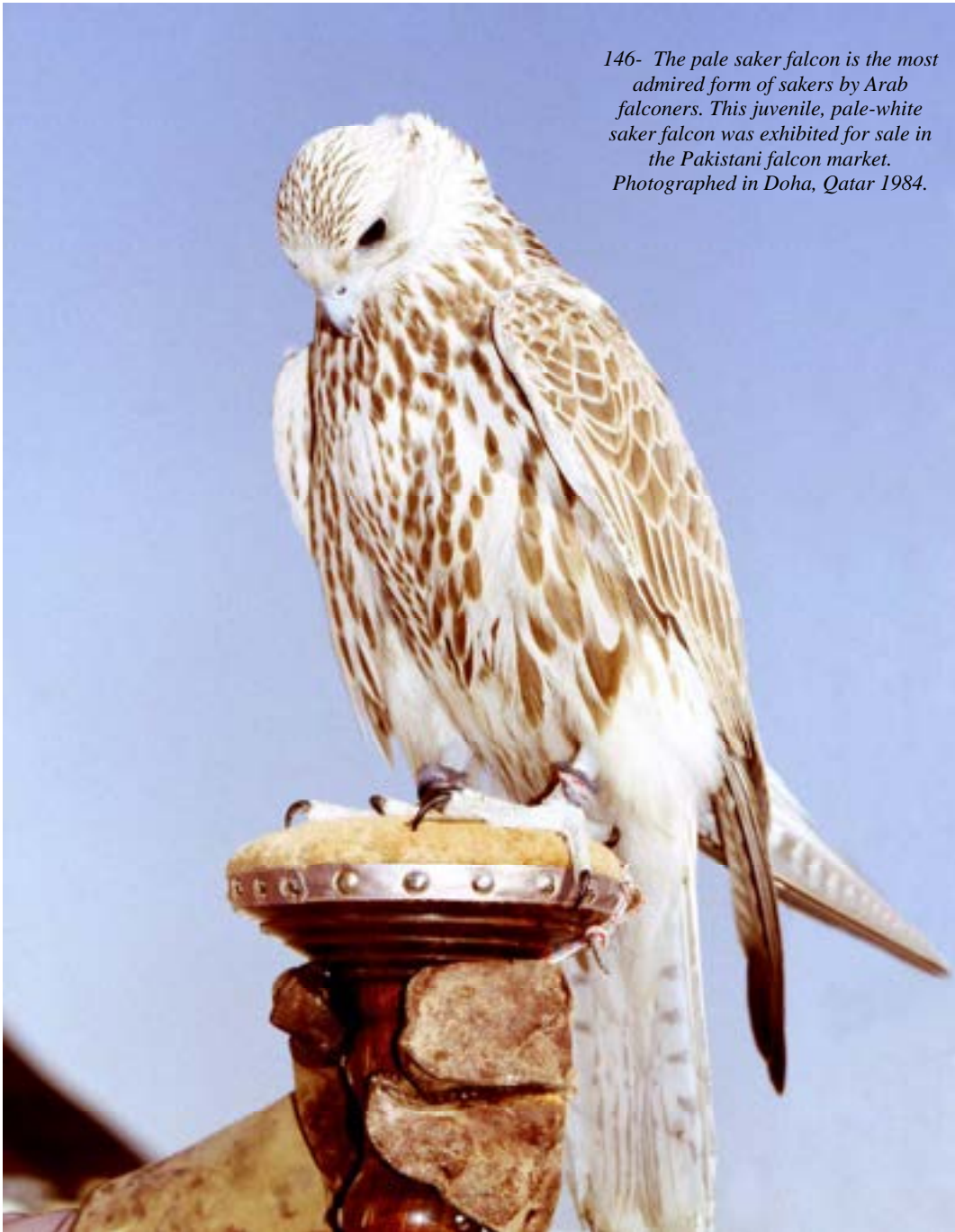


142 & 143- A pale, haggard, female saker falcon. This falcon is said to have been trapped in Libya. It is not unusual to have some pale sakers trapped in North African countries. Photographed in Doha, Qatar 1989.



144 & 145- A pale, haggard, female saker falcon. The falcon trader claimed that it was trapped in Pakistan. Photographed in Doha, Qatar 1989.

146- The pale saker falcon is the most admired form of sakers by Arab falconers. This juvenile, pale-white saker falcon was exhibited for sale in the Pakistani falcon market. Photographed in Doha, Qatar 1984.



Both the very pale and the very dark sakers are extremely rare and, on average, only a few might come on the market each season, while, on average, maybe several thousand trapped falcons were sent every year to the Gulf countries during the 1980s and 1990s. These are considered to be very valuable falcons which cannot be afforded by the average falconer, and therefore they are not found in the same numbers in every Gulf country. They are most likely to be found in Saudi Arabia, where there are several falconers who are ready to bid for their very high unusual prices. Also, they used to appear in the UAE during the 1980s when the Sheikhs were not so interested in the captive-bred gyrs and gyr hybrids. In Qatar and Kuwait, there are only few falconers who are willing to bid for the high prices of these rare unusual falcons. The need for the rare, high value saker falcons has very much been reduced because of different reasons. Many of the wealthy old falconers have passed away and they have not been replaced by a new generation of falconers, also many of the old falconers gave up the practice of falconry because, the places available to practice this costly sport are becoming more limited geographically, due to

147- A juvenile, Adham, female saker falcon, said to have been trapped and imported by special permit from China. Photographed in Doha, Qatar 1991.



the strict implementation of environmental protection regulations and legislation in many countries, which used to be wide open to the public to practice this sport. The progressive restrictions on practicing falconry in most countries, and the economic difficulties in addition to the progressive overall cost of hunting trips, have played major roles in the reduction of the practice of falconry by many wealthy old people. However, during the falconry seasons of 2004-2006, two unusually highly priced wild trapped falcons were sold in the area. When a pale or very dark saker falcon comes to the market it will not be available to be seen by the general public but will be taken to a target customer who likes such falcons, or if it was not that valuable, it will be kept on the side for the few who can afford it. There will be a lot of talk and exaggeration in the “*Majlis*” about the external features of these falcons, and even if they are exhibited for sale abroad, some of the enthusiasts are ready to go personally to bid for them. It could be purchased by one falcon trader or more than one falcon trader who would very often form a group, and bid for the falcon because of its high value, and eventually, if successful in buying it, they take it some-

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148- An adult, pale-white, small to medium size saker falcon. This is usually the average size of this form of pale saker falcons which used to be carried by the old falconers who could afford their high prices. These are still highly prized by falconers of the older generation, who did not want to like change over into using the large size, nice looking gyr hybrids. The best market for this form of saker falcon is more likely the Kingdom of Saudi Arabia and Kuwait. Photographed in the Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia 2006.

where to be shown to a wealthy falconer who will mostly appreciate the effort and pay them a good price in return.

The other features of the sakers which falconers prize are a big strongly built body, a big head and stout beak, short shanks which are covered by the thigh feathers, broad feet with broad short toes, which exhibit the ability of a powerful grasp and a broad breast with massive pectoral muscles, which indicate good flying ability and high speed.



The description of the colour of a saker falcon is not always agreed upon by all the falconers. The difficulties which we face would include the description of the colour itself and the pattern of the spots which normally cover parts of the back plumage and tail feathers of some forms of saker falcons. The following names could be considered as a reference to describe the colours of the saker falcons - all of them are based on the colour of the falcon:



149 & 150- This is another form of the saker falcon which is very light, almost white on the front of the neck and breast, while its head is a creamy chestnut colour. The lower part of the back and wings are finely spotted in most examples of this form, which only occurs in the adult plumage. The size of this form is larger than that of the previous form in (Fig. 148). Most of the specimens of this form come from the Pakistani falcon market.

The Eastern Region Falcon Clinic,
Al-Khobar,
Saudi Arabia 2005.





151- "Ghadi" an unusual white saker falcon caught as an adult from the wild, came in 2005 to be a member of the group of falcons which belong to H.H. Sheikh Jasim bin Hamad bin Khalifa Al-Thani. Unfortunately, "Ghadi" did not stay around for long, and it was a rather short visit to be remembered for a longer time. The name "Ghadi" in Arabic means "Gone". Photographed here in Tunisia by Rik Van Lent Jr. 2005.





152- A three year old, pale-white saker falcon. This falcon is of unknown origin, but it is more likely from Iran or Pakistan. Photographed in The Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia 2005.

White: It is called white, but it is certainly not as white as a white gyr, and probably not even like many silver/white gyr. The white name only comes from the comparison with the other average forms of saker falcon which are generally darker. This form of saker should have a very pale-creamy white crown, front of the neck and upper breast. Darker coloured feathers which are light chestnut colour form faint streaks along the head, front of the neck and upper breast in the juvenile plumage which is expected to disappear in the adult plumage. There should be no clear evidence of moustache streaks which are usually present on both sides of the head of most of saker forms. The general colour of the back and wings is a light chestnut with ill-defined feather edges. There are big white spots on the tail feathers especially on the inner web of each feather, with the exception of the central two feathers which are normally not so clearly spotted. Good specimens of this form would have the inner web of their tail feathers almost creamy-white. The inner webs of the primaries are spotted with big white spots in the same manner as the tail feathers. The feathers of the thighs should be very lightly coloured and long enough to cover the shank. The under-wing coverts should always be very lightly streaked with a light chestnut colour. Under tail coverts are almost creamy white, and the belly region is more clearly streaked than the breast.

153- An adult, pale-white, saker falcon of medium size. The head is pale cream in colour, with scattered light brownish streaks. The usual moustache streaks, which normally extend bellow the eyes backwards, is indistinguishable, which is a feature which adds credit to the value of the falcon. Arab falconers concentrate on the colour of the head, neck and breast. The absence of the moustache streaks comes next and, although the colour of the back is important and is usually given different names depending on the dominant colour, it comes last. Generally, Arab falconers do not like the grayish colour on a saker's back. The size of the falcon is another important matter. The larger the saker the more it is favoured. Twenty or more years ago, Arab falconers were not so familiar with very large sakers and most of them experienced only what is considered now as small to medium size falcons.

Photographed in the Falcon Clinic, Al-Khobar, Saudi Arabia 2005.







155- A pale one year adult female Saker falcon originally trapped in China , which has just finished its first moulting season in captivity and getting ready for the new hunting season. Riyadh, Saudi Arabia, 2004.

Ashgar (Blond): This is pale but clearly darker than the aforementioned, the white, in its general back and wing colour. It is more clearly streaked on the crown and elsewhere. The moustache streaks, although very light in colour, could still be defined. The feather edges of the back and wings are not so clear. The size and conformation of the body is just about the same as that of the white saker, or maybe a bit larger in many cases. It is obviously not right to claim that there is a clear line of demarcation of external features and behavioural characteristics, that differentiates or separates the white from the blond juvenile saker falcon. Therefore, I personally consider them practically as the same form as the white saker form, but only with a slight difference in the colour in general.



156- A three year adult pale female saker falcon. This is displaying the features of a pale white saker falcon, which is not very common. The back plumage is of a chestnut-cream colour and is almost plain, the breast is only very finely streaked with a pale chestnut-cream colour. This is an example of the good, rare features of a pale saker falcon. Photographed in the Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia 2005.

Ahmar (Red): The colour of the back, wings and tail is dark chestnut to brownish. The feather edges are clear in the juvenile and, become more clear in the adult. The crown and front of the neck and breast are heavily streaked by the same dark chestnut colour of the back . The moustache is more clear. There could be some lighter colour spots on the back. The tail feathers are very often finely spotted with a lighter colour especially on their inner web.

157- A juvenile, pale white saker falcon said to have been trapped in Pakistan. It was sold in the falcon market in Pakistan, but I could not be sure of its origin where it was trapped because of the fact that the Pakistani falcon market imports falcons which were originally trapped in many other countries, like China, Afghanistan, Uzbekistan and Tajikistan. Pakistani falcon traders are probably the most efficient amongst all falcon traders in their ability to source falcons which could be good for the trade, including smuggling them out of or into different countries. Doha, Qatar 1986.





158– A juvenile pale saker, Sudan 1983.



159– A juvenile pale saker falcon, Tunisia 2002.



160– An adult pale saker falcon, Riyadh, S.A. 2003.



161– An adult pale-white saker falcon, Riyadh, S.A. 2003.



162– A juvenile “Ashgar” saker falcon. Doha, Qatar 1988.



163– A juvenile large “Ashgar” saker falcon. S.A 1984.



164– A juvenile plain back “Ashgar” Saker falcon. Doha, Qatar 1988.



165– A juvenile Red “Ahmar” saker falcon. Doha, Qatar 1985.



*166– A juvenile Reddish saker falcon.
Doha, Qatar 1986.*

*167– A juvenile Red saker falcon.
Doha, Qatar 1993.*

*168– A juvenile reddish “Ashgar” saker falcon.
Saudi Arabia. 1984.*

*169– A juvenile pale saker falcon.
Sudan 1983.*

*170– An adult reddish “Ashgar” saker falcon.
Doha, Qatar 1989.*

*171– A juvenile “Ashgar” saker falcon.
Doha, Qatar 1987.*

*172– A haggard reddish “Ashgar” saker falcon.
Doha, Qatar 1989.*







174- A juvenile female red /“Ashgar” saker falcon. Very similar to (Fig.173) and having a paler head, otherwise needs a sharp eye to notice the differences. Trapped in Iran and came to Doha at a different time. Doha 1989.





176- A juvenile pale-reddish female saker falcon, said to have been trapped in Syria. The falcons which come from Syria are almost always subject to uncertainty of their origin. Doha, Qatar 1989.

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177- A large, juvenile, average red saker falcon. Its plumage does not clearly indicate its real age, because some falconers are confused about this when an adult is trapped from the wild. It is a fact that many people confuse wild trapped sakers either of being juveniles or one year old adults. It requires a very careful, experienced eye to differentiate. However, there is a very little chance that a falconer would be confused about recognizing a captive adult which has spent a moulting season in captivity. Furthermore, it is not difficult to recognize a wild caught adult which has spent a full moulting season in captivity. Doha, Qatar 1993.



178- A three year old large size adult pale red female saker falcon, of unknown origin. Most of the red, pale red, reddish "Ashgar" are larger than most of the average saker falcons. Doha, Qatar 1989.



179 & 180- A large, haggard Ashgar saker falcon, showing its plain plumage of the back with the differently aged feathers. Some feathers are newly growing after having recently been moulted. The trader who carried this falcon said that it had been trapped in Mongolia! This is a claim that difficult to accept or reject.



Some people who were listening, even before they were asked what they thought about it, jumped to much more extreme ideas suggesting, it was originally a captive-bred falcon! It was me who was asked, not the others, to give my opinion, which is often a cause of embarrassment, especially when my opinion might seem to diminish the falcon's value according to the different factors and features which enhance it. So I have to avoid it if I want to be on the safe side, especially when it is with someone I do not know very well. I believe this was a good looking falcon with unusually fresh growing feathers, and lots of features that could be reasons for legitimate confusion and argument. This falcon was photographed in the Eastern Region Falcon Clinic on January 2006, and already must have gone somewhere. It is too late to reconsider its real origin!



181– A red juvenile saker falcon trapped in the desert of Saudi Arabia on November 2006, and is kept by Prince Mansour bin Abdulrahman Al-Saud. Riyadh, Saudi Arabia 2006.



182– A one year adult red saker falcon which has finished its moulting. It was kept in this place during the moulting season. It is the same place where it is spending the rest of the year, excluding the time of the hunting trip which could extend in this special case to more than two months. Riyadh, Saudi Arabia 2005.

*183—A large size haggard red saker falcon which has its lower back and wings finely spotted. This form of saker is usually one of the largest forms of saker falcons. In many of its specimens, it is difficult to find a clear line to separate it from the form which is called by the Arab falconers as a “Green saker”.
The Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia 2004.*



*184- An adult pale-red female saker falcon. Its back plumage is plain which is of a typical red saker falcon. Its origin is un-known, which could be Iran or Iraq.
The Eastern Region Falcon Clinic,
Al-Khobar, Saudi Arabia 2004*



185 & 186-
A two year old adult female saker falcon which has its complete back marked with transverse stripes. According to its owner, Pakistan was supposed to be its origin. Photographed in Al-Sharja, UAE 1989.

Jurudi: The *jurudi* is characterized by several spots on its back feathers, which make a characteristic pattern of a transverse line of dots of different sizes, and mostly bigger in size on the lower back. These lines could completely or partially cover the back. The different forms of the *jurudi* could either be *Falco cherrug coasti*, or *Falco cherrug hendersoni*, according to Friedhelm Weick and Leslie Brown's, "Birds of Prey of the World". They mostly come from *Pakistan*, where they might have been trapped, or more likely they were originally trapped in *China* and then smuggled into *Pakistan*. It is said that they were not so common during the 1950s and 1960s, and that they were highly prized by wealthy falconers then, obviously because they were comparatively rare during that time. Starting from the mid-1980s, a

187- A juvenile red female saker which has its lower back spotted. This is the specimen of this form of saker falcon which is showing the large which is one of the peculiar features it has. It was sold in the Pakistani falcon market. Doha, Qatar 1989.



higher percentage of these forms of falcons started to be seen in the market. Most of them, if not all, came from Pakistan. They never come from countries west of the Gulf region like *Syria*, *Egypt* or *Libya*. Some of the *jurudi* juvenile sakers do not show the stripes along their backs, until they moult to become adult, which could mean that they are not pure *jurudi* and, only have the plumage of the *jurudi* because of the natural cross-breeding of the *jurudi* with other forms of saker falcons.



188– Another sample of spotted back haggard saker falcon, (Jurudi) but this time is trapped in the North of Saudi Arabia. Riyadh, Saudi Arabia 2005.



189- A juvenile, pale, Ashgar, male saker falcon, (Kobaj). This has been trapped in Iran and smuggled through the Gulf to reach the falcon market of Doha. This was purchased because it was nice looking, and to be carried by one of the younger generation of falconers. Photographed here on its perch in the garden of its owner.
Doha, Qatar 1985.

190- This is the small size female pale saker, which Arab falconers call "Mathlooth", which means two-thirds of a usual sized falcon. In some Gulf states, like Bahrain and Qatar, the older generation falconers call it "Ni'airy". It is not a common falcon, nor it is of a high value, although some wealthy falconers would love this more than a large, good-looking saker falcon.
Doha, Qatar 1986.

Kobaj: A white, *Ashgar* or red saker falcon, which is about two thirds of the normal size of the saker, in other words, it is the male saker, but only a few falconers would know that this is the male saker. This could not be confused with others as its main identification is its size, which is about two thirds of the usual size of a female saker.

Ni'airy, or "Mathlooth": This is another saker which is a bit larger in size than the *kobaj*, and is either a large male or a small female. The *Ni'airy*, *Mathlooth* and *Kobaj* are not so common and only appear when they are very nice looking. It could be that, when such a falcon is trapped in countries where trapping falcons is totally prohibited, the professional falcon trapper would normally tend to release it, because he knows that its monetary value does not warrant keeping it, especially if there is a high penalty charge for trapped falcons if found in their possession. However, some well known falconers always look for the *Ni'airy* falcon especially those nice looking white or pale ones, simply because of their belief that they are good, keen hunters.



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191- A wild caught, adult, green, saker falcon. This is displaying a pale neck and breast. It is also displaying another feature which might not be that clear to everyone. It is the slight deformity of its upper beak, close to the nares. This is the scar of the damage caused by pox infection to the cere and nares. When Arab falconers see this scar, and if they know the right reason of it, which is mostly an infection of pox which would normally happen when the falcon was captive, maybe a year or more before it was recaptured, they would consider it as a credit to the falcon. They would believe that the falcon has been lost in hunting and had spent a year or more in the wild, which definitely adds to its experience. It is therefore expected that this would enhance the value of this falcon.

The Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia 2005.

192- The head of a large size (Green) haggard saker falcon, showing the scars of the eye stitches. Trapped in Iran. Photographed in Saudi Arabia 1984.





*193– A juvenile (Green) saker falcon, came from Pakistan.
Doha, Qatar 1986.*

*194– An average (Green) adult saker falcon of unknown
origin.
Doha, Qatar 1985.*



Akhdhar (Green): This form is very often confusing and falconers have never really agreed upon its external features and plumage colour. Its colour usually ranges between the red and the dark which is the “*Adham*” sakers. The back is usually spotted here and there with lighter and darker colour spots, which give the general colour an uneven and indescribable colour. The breast is almost totally streaked with wide dark colour spots. The moustache is always very distinct and clear. The size of the falcon could be distinctively large. Generally, this falcon is one of the saker forms which has a very wide range of sub-forms, which could mostly be the result of natural cross breeding between the dark form and the other forms like the red, Jurudi and Wakri Al-Harar.



*195– A one year adult (Green) saker falcon of a good size and a good colour. This is probably a good example to represent this form of saker falcons.
Doha, Qatar 1988.*



196– Another example of the (Green) form of saker falcons which is showing the spotted back and the pale neck. Doha, Qatar 1986.

Gurmoosha or (Gurmusha): Arab falconers describe this form that its colour is dark, the beak is relatively big and its dorsal line (edge) is on the same level as the top of the head. Its talons are big, especially the hind one, which is curved more than usual, with a groove which runs along the inner surface of each talon. The aforementioned features do not always mean they are true, nor is it easy to differentiate this falcon from other forms of sakers, and there is some argument between the falconers about its characteristic features. I myself do not like to go further in arguing about its identification and have very little idea from which geographical habitat this form of saker falcon originates. Turkey is obviously exporting them, although many others come from Pakistan. It seems difficult to find out the exact scientific name of the different subspecies of saker falcon which could be relevant.



*197 & 198– The head and feet of the same form of saker falcons which is called locally “Gurmoosha”.
Doha, Qatar 1985.*



*199– The feet and talons of another specimen of “Gurmoosha” form of saker falcons. These toes are not the short and stout toes of the forms of saker falcons which are normally sought after and highly priced by the Arab falconers.
Doha, Qatar 1985.*



Adham, (Dark brown): The back, head and breast are darker and more uniform in colour than the Akhdar, but lighter than the *Sinjari*. Its general plumage colour is clearly even and very few, two to four or no spots appear on the back, but more than that on the outer tail feathers. This must be a form of *Alticus falcon* since it greatly resembles the dark Alticus falcon. Many falconers, once they get hold of an attractive looking Adham falcon, will soon refer to it as a *Sinjari* falcon, but certainly it is not. We can confirm that it is not a *Sinjari* falcon even before we see it, by watching the way the falconer describes it, when it is clear to everyone that he is not so confident of it to boast about it everywhere, and only does so occasionally from time to time. Many falconers can get their hands on an Adham saker falcon, while the *Sinjari* is another matter altogether, and many do not get the chance to even see one. I have often been asked over the years by tens of falconers, especially young ones, about the characteristic external features of this exceptionally rare falcon and, whether the dark falcon they see in a book or a picture is a *Sinjari* Falcon. It is not difficult to answer, but there is a clear chance that they were confused by the pictures of the black gyr falcon, especially when Arab falconers were unfamiliar with the external feature of a black gyr, and at a time when there were not so many gyrs and gyr hybrids coming to the Gulf falcon market. My impression about this falcon is that it is very sensitive and vulnerable to stress and disease, compared to the other aforementioned.



201- A juvenile dark "Adham" female saker falcon of uncertain origin. It is thought that it was trapped in China. Photographed here in Tunisia 2002.



202 & 203- A juvenile, very large, Adham, saker falcon. This falcon was also supposed to have been trapped in Mongolia. I was not able to comment on this claim at the time because of the reasons mentioned above. One certainly cannot claim to differentiate between the subspecies and forms of natural living falcons with the naked eye. They are very likely interbreed especially when falcons are lost in areas close to the breeding habitat of other subspecies and forms. When I look at the feet of this falcon I find them larger than the feet of the largest saker falcons I usually see, no matter what was the colour or form of that saker. Even the dark Adham or Sinjari of known origins would not have such large feet and massive talons. Arguing with the falconers is a matter that has to be dealt with separately and wisely. Sometimes I feel I have to explain all of my experience and what I personally believe. This matter of untrue claims of the origin of falcons could go on for many years as long as there are falconers who appreciate wild trapped falcons more than the captive-bred ones. Some other features exhibited by this falcon which are unfortunately unclear in these photos, would add to my strong belief that this is not a pure Adham saker falcon, but I could be wrong!
The Eastern Region Falcon Clinic,
Al-Khobar, Saudi Arabia 2006.





204 & 205- A juvenile female "Adham" saker falcon from Pakistan, Doha, Qatar 1988.







207- A very dark "Adham" haggard female saker falcon of unknown origin.
Doha, Qatar 1992.



208, 209&209a- (Left) A juvenile "Adham" female saker falcon, known to have been trapped in China and imported into Doha, Qatar by a special permit. The scar and effect of the stitching of the eyelids are clear in the enlarged photo of the head. Doha, Qatar 1990.



210 - A haggard female "Adham" saker falcon, sold in the Pakistani falcon market. Doha, Qatar 1988.

211- A one year moulting "Adham" saker, *Alticus saker* falcon, imported to Germany from China by a special permit, owned by the Ciesielski family breeding project. Photographed in Cologne, Germany on a visit to the Ciesielski breeding project. Summer 1989.



Sinjari: This is almost totally black. It is very proud, obviously very confident, rarely screams when cast by hand, and does not often flap off the hand when carried on the fist, hooded or un-hooded. This falcon could never be mistaken for others, whatever has been said about them. Its extraordinary external features are self explanatory and are not often found in others. Its pose while standing, hooded or un-hooded amongst falcons of other forms is like a wise, confident, brave mature adult amongst young playful children. This is not an exaggeration, but is a description of what I have seen on many occasions. The reason for giving the name Sinjari to this falcon is as we have stated before, not well known as it should refer to the Sinjar mountain in the north of Iraq. Also we have explained the other possibility that this name has been derived from an old Arabic name which was used for the gyr falcons in the old years of Islamic civilization. Several specimens of this falcon really came from Iraq many years ago and, the falconers in the Gulf knew about this falcon many years before Pakistan was considered a generous supplier of falcons to the Gulf. I personally like to see and watch this falcon everywhere but not in my clinic! This is because it is so sensitive to the slightest stress and develops complications when it is sick or when it has damaged or broken feathers which need mending. The response of the Sinjari to different diseases is never like that of the other forms of saker falcons, which are almost all known for their high resistance to diseases and, it is not like that of the peregrine falcon which usually shows a very quick and encouraging response to treatment. Sinjari falcons seem to respond very quickly to very mild infections and very slowly to the best and most effective treatment. It is not unusual to hear from the owner of a sick Sinjari falcon that his falcon did not respond well to the treatment on the first day, while this is very unusual if the falcon is not a Sinjari. This is of course in the cases of curable diseases. Although I very much like this falcon, I have been fortunate that not so many Sinjari falcons are around! This is something which certainly cannot be scientifically verified, but is my experience along the years with this mysterious falcon.

212- (Opposite) A juvenile, Sinjari, saker falcon, (*Alticus Falcon*), known to have originated from China, where it was trapped. It is one of the group of rare sakers which belong to Prince Turki bin Muhammad bin Fahd Al-Saud. Falcons like this have rarely come to the Gulf countries in recent years. When they do come to the Gulf, they will be the object of suspicion, and many falconers will volunteer to judge them, unless they are brought in by a famous falcon trader who enjoys a good reputation. Photographed here in Tunisia on the hunting trip of December 2002.

213- (Right) An adult, Sinjari, saker falcon, which is also one of the group of rare sakers which belong to Prince Turki bin Muhammad bin Fahd Al-Saud. Photographed in Tunisia on December 2002.





214- A haggard female "Sinjari" falcon of unknown origin, imported from Pakistan. Doha, Qatar 1989.



215- A juvenile "Sinjari" female saker falcon, sold in the Pakistani falcon market. This is the same falcon shown in photo (141).
Photographed in Doha, Qatar 1984



216 & 217- "Ghassab" is an adult Sinjari saker falcon, *Alticus Falcon*, known to have originated from China where it was trapped, and came to Prince Turki bin Muhammad bin Fahd Al-Saud as a juvenile in the year 2000. It is photographed here in The Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia (Left) in October 2004, and (Top) on November 2006. It has always reminded me of the *Alticus falcon* specimen which I have seen in the Tring Natural History Museum (photos 263 & 264), although Ghassab is very much darker. It is what I saw and heard of the character and behaviour of the Sinjari, "The Noble Falcon" that made me always look at Ghassab as an ancient falcon from the past. Whenever I see it, I am reminded of all the stories that I heard from the older falconers.



218- A juvenile saker, more likely green form. It has been moderately bleached to produce this nice cream colour, which has only a few feathers on the face showing the real colour of the falcon. These bleached falcons started to come to the falcon market since the mid-1980s from Syria, where they were probably bleached, or bleached in Pakistan before they came to Syria to be sold as rare coloured falcons trapped in the desert of Al-Hamad between Iraq and Syria. Many people at that time trusted that these could be the Golden "Tibri" falcons, the rare saker falcon which the old falconers had it in their minds. I was one of the people who was misled, believing what the old falconers believed. This falcon was sent from Iran to a Sheikh who showed it to me and he was suspicious. He rejected the falcon after I told him that its colour would eventually go back to normal, like its face. Doha, Qatar 1989.



219- A female saker falcon whose feathers have been bleached into a completely white colour, having only the newly moulted feathers on the wing and the face, revealing the real colour of the falcon. This falcon came to Doha from Iran where it was said to have been trapped, of course it had its original natural colour when trapped! Doha, Qatar 1989.



220- Another saker falcon which has been lightly bleached, especially on the head. This falcon also came from Iran in the same year, 1989, but went to Sharjah, UAE, where I saw and photographed it. The Sheikh who purchased it liked the conformation of the falcon, and wanted to see how its colour would appear when it moulted. The people who are doing this process of bleaching, seem to try it in the same year, hoping that these bleached falcons could easily be marketed and sold for high prices. Sharjah, UAE 1989.

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Different forms of saker falcons (221, 222, 223, 224, 225) are juveniles, and (226) is an adult. These are displaying the different colours and patterns of the back plumage of different saker forms. These falcons were photographed in Doha, Qatar between 1983-1989.

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Different forms of saker falcons (227, 228) are juveniles, (229, 230, 231, and 232) are adults. These are displaying the different colours and patterns of different forms of saker falcons. The juvenile falcon in (227) was photographed in Tunisia 2002, all the others were photographed in Doha, Qatar between 1983-1989.

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232



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235

Different forms of juveniles sakers (233, 234, 235, 236, 237, and 238), these falcons are displaying different colours and patterns of the back of different saker falcon forms. These falcons were photographed in Doha, Qatar between 1983-1989.

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Different forms of sakers (239, 240) are juveniles, (241,242,243) are haggard and (244) is a captive adult. These falcons are displaying different colours and patterns of the back of different saker forms. These falcons were photographed in Doha, Qatar between 1983-1989.

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245 & 246- Six Specimens of stuffed saker falcons *Falco cherrug cherrug*, in Tring Museum, British Natural History Museum, showing (back and front) of sakers collected from different parts of the world. Left to Right: 1- Male from Baghdad, Iraq 1922. 2- Male From Western Europe. 3- Female from Samarra, Iraq 1918. 4- Male from Musul, Iraq 1914. 5- Male from Baghdad, Iraq 1922. 6- Male from Baghdad, Iraq 1922. Photographed by the author on 1981. Published by a permission from The British Natural History Museum.





247 & 248- Three specimens of stuffed Saker falcons in the Tring Museum, BNHM, left-right: 1- Female from Baghdad, Iraq, December 1917. 2- Male from Amarah, Iraq, December 1917. 3- Female from Southern Hungary, 1870. Photographed by the author on 1981. Published by a permission from The British Natural History Museum..



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249 & 250- Five stuffed sakers in the Tring Museum, BNHM, left-right: 1- Female from Tihama, Saudi Arabia 1937. 2- Female from Sar-i-Bulak 105 Mile from Kabul, Afghanistan 1933. 3- Male from Afghanistan (No details available). 4- Male from Jeddah, Saudi Arabia 1935. 5- Female from Wad Abad, (No details available).
Photographed by the author on 1981. Published by a permission from The British Natural History Museum.





251 & 252- Four Stuffed specimen of saker falcons in the Tring Museum, BNHM, left-right: 1- female *F. c. cherrug* from the Volga. 2- female *F. c. milvipes*, from Al-Tai mountains (Katun Karagi), Mongolia. 3- Male *F. c. saceroides* from Tian Shan Bianchi. 4- Male *F. c. cherrug* from Southern Ural. Photographed by the author on 1981. Published by a permission from The British Natural History Museum.





253 & 254- Five specimens of stuffed saker falcon from the Tring Museum, BNHM, left-right: 1- Male *F. c. milvipes* from Nepal. 2- Male *F. c. milvipes* Tibet, China. 3- Male *F. c. milvipes*, (no data available). 4- Male *F. c. Milvipes* from Gyantse. 5- Male *F. c. milvipes* from S. Tibet (Taudrok Tso 16500 foot hight).
Photographed by the author on 1981. Published by a permission from The British Natural History Museum.





255 & 256- Four stuffed saker falcon specimens from the Tring Museum, BNHM, left-right: 1- Male *F.c. cherrug* from Syria. 2- Female from Baghdad, Iraq October 1921. 3- Male *F.c. cherrug* (no details available). 4- Female *F.c. cherrug* from Asia minor.
Photographed by the author on 1981. Published by a permission from The British Natural History Museum.



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257 & 258- Six Stuffed saker falcon from the Tring Museum, BNHM, left-right: 1- Male from Khartoum, Sudan 1911. 2- Female from Khartoum, Sudan 1911. 3- Female from Alfashir, Sudan 1921. 4- Female from Egypt 1854, which is the oldest specimens I could find of a saker falcon in the Tring Museum. 5- Female from Egypt. 6- Female from Egypt. Photographed by the author on 1981. Published by a permission from The British Natural History Museum.





259 & 260- Three stuffed specimens of gyrfalcon, *Falco rusticolus* from the Tring Museum, BNHM, left-right: 1- Island falcon. 2- *Falco rusticolus candicans*. 3- *F. rusticolus candicans*. (no more details were available). Photographed by the author on 1981. Published by a permission from The British Natural History Museum.





261 & 262– Three stuffed specimens of gyrfalcon, *Falco rusticolus* from the Tring Museum, BNHM, left-right:
1– Male gyrfalcon Bering Sea. 2– Female *Falco rusticolus* W. Siberia. 3– Male from Bering Sea.
Photographed by the author on 1981. Published by a permission from The British Natural History Museum.





263 & 264- The only specimen of Altai falcon which I found in the Tring Museum, BNHM. This is a female *Falco alticus* collected from Al-Tai mountain on 1891. Photographed by the author on 1981.
Published by a permission from The British Natural History Museum.



These previous specimens of Saker and Gyr skins (*Fig. 245-264*) are not showing the actual size, or the conformation and dimensions of the falcon body. They are only for scientific and research studies, and simply stuffed in with cotton without adjusting them to the exact and right proportions of the falcon body.

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The popularity of the peregrine has greatly increased in recent years. Three factors can account for this. First, falconry has become a more popular sport; secondly, fewer houbaras seem to migrate to the Arabian peninsula each year; thirdly, the peregrine's flying speed, its swift maneuverability and its determination while chasing its prey, gives the houbara very little chance to escape its deadly fate. The situation of the peregrine as a hunting falcon has dramatically changed throughout the last forty to fifty years. It is said that, during the 1950s and probably the 1960s, a trader would throw in a peregrine as a gift if someone bought two or three expensive sakers. Nowadays, both juvenile and adult peregrines are very much sought after by falconers who love to use the peregrine and never go hunting without it. Many falconers who used to be known as very fond of sakers, are now using peregrine falcons only for hunting, but not as companion or *Majlis* falcons! Some of them even gave up buying good looking highly prized juvenile sakers every year, which was their common practice.

It is only the large female which is considered a peregrine falcon by an Arab falconer, "Shaheen". The small female is mostly called "Mathlooth" which means "two-thirds", or "Tiba'a" when it is smaller. The name "Tiba'a" means the "fellow" by which the falconer means that it followed the large



265- The Peregrine falcon is a delicate falcon, which is something most of the older generation knew and accepted. The approach to tame and train it is considered by most Arab falconers something that needs long and special experience. Its falconer needs to be very accurate in everything related to its feeding and general care. This difficulty in handling and keeping a peregrine falcon did not prevent Arab falconers from keeping it. In fact the numbers are increasing on account of the falconers who are known to be keeping only sakers. All of this is because of the difficulty of finding sufficient prey, mostly houbaras, to be hunted by all the falconers, which has become very difficult the recent years. The peregrine falcon has a high flight speed and there is little chance that the shy houbara would have a chance of escape even when it flies off from a distance. This peregrine falcon has the colour and body conformation which is sought after by almost all peregrine falconers. Broad breast muscles, which push the wings backward and large feet with long and powerful toes are all what a peregrine falconer is looking for in his falcon, the rest of its features are fairly irrelevant. The Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia 2006.

266- A juvenile peregrine falcon, with an unusually dark face for a peregrine trapped in central Saudi Arabia. Hundreds of juvenile, small to medium peregrines are trapped in Saudi Arabia by the local people every season. They either sell them directly to the final customers, or call their friends or the falcon traders to spread the word of the trapped falcon, until they find the right customer. The peregrine is getting more and more commonly used by the falconers in Saudi Arabia. Many of them are trapped on the eastern shore of the peninsula, close to the Gulf, while others could be trapped further north near the borders with Iraq, or south near the borders with Yemen. Riyadh, Saudi Arabia 2006



peregrine. The “*Mathlooth*” is mostly a small female peregrine, and can sometimes possibly be large males of the sub-species *Falco peregrinus peregrinus* or, *Falco peregrinus calidus*. The “*Tiba’a*” is mostly the male of any of the sub-species like *Falco p. peregrinus*, *F. p. calidus*, *F. p. brookei*, or even possibly *F. p. minor*. (Leslie Brown and Dean Amadon’s “*Eagles, Hawks and Falcons of the World*”). Some other names are used for these small peregrine sub-species like, “*Jibaliyah*” which means “from the mountains” and “*Bahriyah*” which means “from the sea”, and “*Bajja*” whose exact meaning is unclear. The interesting thing about these small peregrine sub-species is that, they come to the Gulf falcon market much earlier than the usual months of mid-October onwards, which is when the usual sakers, peregrines and lanners start coming to the market. They could come as early as mid-July, and a high percentage of them would be first and second year adults. These small peregrine sub-species come mostly from the western coast of *Saudi Arabia* on the *Red Sea*, where most of them are obviously trapped, and some others are trapped in *Sudan* on the other coast of the Red Sea, and then exported to the market of Saudi Arabia. In this case large numbers of different forms of lanners will be coming as well. They are also trapped further south on the Red Sea, like in *Yemen*.



267 - The small courageous peregrine falcon which was successful in hunting this large size prey and seven more of the same Heuglin's bustard. It is shown here hooded to make it stand still while posing for the camera in an unusual shot, in order to compare its size to the size of the prey. The story and description of how this small size peregrine managed to capture eight large-sized bustards was hard to believe to anyone who did not witness it for himself. The size of this bustard is about one and a half of the size of a large houbara. However, it was almost defenceless compared to the houbara because it was only trying to escape by flying away when being chased by the falcon. Meanwhile, this small falcon was amazingly enough taking advantage of the situation and stooped at it to grasp it from the neck and started screaming as if it is calling for help. North of Somalia, Spring 1983.



268- The falconers holding and spreading the wings of the Heuglin's bustard to show its size which was in admiration of the unusual excellent performance of the small peregrine. Somalia, Spring 1983.

The male peregrine attracts little interest among Arab falconers, and is not worth more than forty percent of the usual peregrine price for the “*Mathlooth*”, and it is much less than ten percent for the “*Tiba’a*”, whether they were juveniles or adults. The “*Tiba’a*” plays an important role in the hunting of the *Stone Curlew* and in some cases the *Hare* late in the hunting season during March and April. I have seen three or four of these falcons which were said to be successful in hunting the houbara. I once saw an extraordinary performance by a small *Falco p. peregrinus* in *Somalia*, which was very keen and very successful in hunting eight of the big bustards, the *Heuglin’s Bustard*, which is about double the size of the normal houbara. This small falcon became so keen in chasing these big bustards, after being released several times for a couple days after the *Black Bellied Bustard* and the *White Bellied Bustards*, which are smaller than the houbara and very common in the prairies of *Somalia*, and was very successful in catching them. That falcon was obviously unable to estimate the large size of the *Heuglin’s Bustard* from a distance, and did not realize how large it was until it came very near to it, when it discovered it was too late to withdraw, and so it attacked that large prey. It began screaming as if it was calling for help, which, in reality, was exactly what was happening. That small peregrine always caught the bustards from the neck or wing and did not give them a chance to fly off until the falconers arrived to help it catch the bustard and taking the small peregrine which belonged to *Jasim bin Rabi’a Al-Kuwari*. It should be mentioned that it was really successful in killing the last *Heuglin’s Bustard* it caught. I have seen another attempt which was basically to train a full-size large peregrine falcon in the *Great Sahara of Sudan*, to chase a *Nubian Bustard*, *Neotis nuba*, which is about the same size as that of the *Heuglin’s bustard*, *Neotis heuglini*, but that attempt was totally unsuccessful and the falcon was terrified when it saw the *Nubian bustard* displaying its wings and tail in the defensive movement known by most of the bustard sub-species, and it was about to fly off in the sky because it was so terrified. Many falconers could not believe the story of the first small peregrine which had successfully captured eight *Heuglin’s bustard* until they saw it on a video film of that event, which was the only way to convince them. The picture shown here (fig.192) was hung and shown in my clinic for several years, then I had to take it away, because tens of my clients were always asking me about it and, when they heard the answer, they were obviously not convinced. However, after displaying that picture for few years, I had to take it away, there were still many



269- A male, juvenile, peregrine falcon displaying a dark face which is not very common feature of the peregrines trapped in Saudi Arabia. The Eastern Region Falcon Clinic, Saudi Arabia 2005.





271- A juvenile, female, peregrine falcon showing the feature of “snake head” which is admired by most of the peregrine falconers. This peregrine is supposed to have been trapped in Iran and smuggled through the Gulf to Qatar. Doha, Qatar 1982.

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young falconers who did not have the chance to see it, but only heard about it, were still asking me about it and how that small peregrine had caught those large bustards. I do not know if they believed the story of that falcon or not, but whether they believed it or not, that does not matter to me any more. I understand and anticipate their attitude towards unusual stories and why they disbelieve them. It is because they have heard a lot of untrue stories from friends and relatives, even the closest.

Unlike the saker, the colour of the peregrine is immaterial in most cases, although neither the very pale, nor the very dark are greatly admired by Arab falconers. However, in many cases I found certain falconers who had a long experience of peregrines, and who tended to have a preference towards certain forms and colours of peregrine falcons. The very dark peregrine is often suspected of being captive-bred, or as they tend to call it "*foreigner*". The ideal peregrine which is loved and sought after by most Arab falconers who are very much interested in peregrines, should have a big elongated head which is called by the peregrine falconers "*Snake Head*". The broad breast with the massive pectoral muscles is very important and, constitute the character upon which the falconer puts much of his hope in a very fast flying peregrine as well as very big toes, talons and cross wings which are known as "*Scissor Wings*". The colour should neither be too dark nor too pale, although the peregrine with a slightly dark back is more admired.





273- *The juvenile peregrine is full of energy and always trying to fly off its perch and, when it stops bating, it will start biting on its jesses. Saudi Arabia, 1988.*



272- *A group of different forms of juvenile and adult peregrine falcons just before they leave for hunting.*

The Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia 2006.



274 & 275- An adult peregrine falcon, known to have been trapped in Iran, close to the Northern Gulf area, and smuggled through the Gulf into Doha, Qatar, 1988.



276- (Right) A three years adult peregrine which has just finished its moulting in early February.
Doha, Qatar 1986.



277, 278, 279 and 280– These are different forms of Juvenile peregrines trapped in Iran between 1984-1988. Doha.





281, 282, and 283— These are different forms of juvenile peregrines trapped in Iran between 1984– 1993. Doha, Qatar.

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284- This juvenile female peregrine has been trapped near the Iraq-Iran Southern border. The shape of its head is the feature which is very much sought after by most of peregrine lovers. They call it "snake head". Doha, Qatar 1991.





285- (Above) An adult peregrine falcon which was trapped from the wild in the Midland of Saudi Arabia. Doha, Qatar 1993.



286-(Right) A three year old, female peregrine falcon, which was originally trapped from the wild when it was a one year old adult. It is not difficult to notice any obvious difference, which could differentiate between the plumage of a falcon with this background and another one which was trapped when it was a juvenile. Doha, Qatar 1992.



287- (Left) A dark face juvenile peregrine falcon trapped in Egypt. Saudi Arabia 1984.



288- (Above) A juvenile peregrine falcon which displays the form of light coloured face and head. It was trapped in the region of the southern Iraq-Iran borders, which is called southern Mesopotamia. This is mostly *Falco peregrinus babylonicus*. Most of the peregrines of this form, if not all of them, come from the same area. Doha, Qatar 1988.



289- (Left) A juvenile, medium size peregrine, "Mathlooth", trapped in central Saudi Arabia. It is showing an unusual face colour which cannot be considered dark or light in colour. I saw several specimens of this form only when I started my work in Saudi Arabia and did not see them before 2002 when I was in Qatar. Those peregrines were displaying different but generally the same colour of the face. However, the peregrine falconers claim that they have experienced these for sometime, which is something I cannot accept. Riyadh, Saudi Arabia 2005.



290- A juvenile, peregrine, small female "Mathlooth", pale face and head. This came to the Qatari falcon market from Pakistan. In Qatar peregrine falconers greatly respect the peregrine and therefore, they tend to only call the good size peregrine falcon a "Shaheen", which is the name of the peregrine in the Iranian (Farsi) language, and it has been used by Arab falconers since they learned to use the peregrine. It means "scale" in Farsi. Doha, Qatar 1994.



291- This is the slightly small sized female peregrine. This was trapped on the eastern shore of Saudi Arabia and thought to be a migratory falcon through the Gulf from Iran. Photographed here in the Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia 2005.



292- A three years adult peregrine falcon of unknown origin. Photographed here in the Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia. 2006.



293- This photograph is to show the differences in body conformation of the different forms of peregrines, like the width of their breast muscles and the way they hold their wings together. These detailed features mean something to every peregrine falconer, but are not necessary agreed upon by all of them. Most of the features which are preferred by the falconers have no scientific base or facts to support them. The Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia 2006.

The Lanner falcon, *Falco biarmicus biarmicus* is also used by Arab falconers to a limited extent. It always has its clients who are mostly the beginners, and the falconers who cannot afford valuable falcons. Lanners are not normally sought after by the Arab falconers, and their prices could range from the price paid for a *Tiba'a* to that paid for an inferior small saker falcon. The lanner falcons mostly arrive earlier than sakers and peregrines, as previously mentioned. Most of the lanners normally come from the Red Sea coast of Saudi Arabia, and others are imported from *Sudan*, which are obviously trapped on the other side of the Red Sea. Many others come from Pakistan and others come from Iraq and Iran. Some lanners could be very unusually valued when they are very successful hunters, but they are still considered only a step above the *Tiba'a*. Gulf Arab falconers call them “*Wakri*”, or (*Wakri Abu Ras Ahmar*) which means “lanner with a red head”. This differentiates them from that saker form which they call *Wakri Al-Harar*. Lagger falcons, *Falco jugger*, are much less common than the lanners and fewer falconers are interested in obtaining them. I have noticed that many falconers do not easily recall the lagger falcons, and you usually need to describe them carefully before you can be sure that the listeners knows what you are talking about. Lagers only come from *Pakistan*, and I have the impression that falcon traders do not normally bid for them, and only purchase them when they come with other falcons to be sold as a group.



294- Four gyr and gyr hybrids from the group of falcons belonging to Prince Turki bin Muhammad bin Fahd Al-Saud. These have just left the moulting rooms and started to be tamed and trained again. They were all very successful hunters during the last season, otherwise they would not have had the chance of being kept for another hunting season.

The Falcon Clinic, Al-Khobar, Saudi Arabia, 2006.

The gyr falcon and its use by the Arab falconer has been questionable for many years. There is always the question of, how good as a houbara hunter is the gyr falcon? This is frequently asked by keen falconers. They may also pose the same question about all the other species of falcons, but it really means a lot when asked about the gyr. Gyr falcons, which were all captive-bred, have often been imported from *Canada* since the early 1960s. They were also imported from other *European* countries like *Germany and Austria*, but they all proved to be inferior hunters and were often only kept for their nice, attractive appearance rather than their skill as houbara hunters. They were therefore kept by wealthy Arab falconers for the *Majlis*, which is the traditional Arabic sitting room. During the hunting season, it is very common to see good looking falcons of different species in a wealthy falconer's *Majlis*.

There has been a lot of argument since the publication of my book "*Falcons and Falconry in Qatar*", with many Western falconers concerning the capability of these captive-bred gyr falcons and their performance in Arabian falconry, because of what I mentioned about them being inferior hunters, especially as houbara hunters, compared to the usual sakers and peregrines. They failed at that time to satisfy the ambition of Arab falconers in their performance, which is expected from them according to their powerful external features, their aggressive characters and their keenness on food.

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Arab falconers used to call the captive-bred gyr falcon moody, and they still use this word to describe many of the captive-bred gyrs and gyr hybrids. They say this because they find that many of them behave differently when they see prey, mostly in the case of the houbara. One day they behave violently and display great keenness to pursue it, while on another day they will act as if they do not know it. This description has been mentioned by so many falconers who have tried the captive gyr and gyr hybrids. Many of them have been known to attack other falcons to the extent that falconers feel that it is unsafe to leave them with other falcons if they are not hooded. None of the falconers has ever criticized their flying ability and speed while almost everyone was negative about their keenness as houbara hunters, until very recently when new specimens of captive-bred falcons started to come on to the market. These falcons have obviously been treated differently by the breeders. The reason behind the ill-performance of these captive-bred falcons is probably because they have not experienced the difficulty of fighting for food, like those falcons which are free living in the wild. I learned about how these gyrs were used in ancient times by *Arab Sultans* and wealthy falconers when I researched old *Arabian-Islamic* manu-



scripts. It is said in many of them that gyr falcons were excellent hunters and came from northern countries. They were also said to be the most valuable and rare and could only be owned by royalty. Most of them were obviously sent by the rulers of northern countries and civilizations to Arab rulers. They were called “*Sinqur*” or “*Sinjur*” by the Arabs. The captive-bred gyrs, which were imported by the Arabs from Western breeders, have frequently killed other falcons in their group, especially when they were hungry.

295- A white-silver, adult, female gyr falcon. It is not easy to predict the genetic base or background of many of the captive-bred gyrs.

Some of them do not reflect the large size expected from pure gyr falcons, and some features they possess or exhibit would suggest the possibility of the presence of genes of other species of falcons like sakers, peregrines, prairie or even lanner falcons. The Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia 2005.

Since the mid-1990s, some hybrid falcons like gyr/saker, gyr/peregrine, have been imported by some Arab falconers in the Gulf. Their external features and appearance were not always admired, but there are falconers who are always interested in trying new falcons and it was because of this that they were keen to try these new falcons. Many falconers were happy with their appearance, because they were unusual looking falcons compared to what they were used to see in a saker falcon or a peregrine falcon. Many hybrid falcons were successful hunters to a certain degree, which made them sought after by Arab falconers as long as their prices remained much lower than what they would pay for wild falcons. Certainly, there is a very good chance for captive-bred falcons, whether pure-bred or hybrids, to be used for falconry by Arab falconers, for the future of Arab falconry and the conservation of falcons in the wild. This needs more attention from the falcon breeders and, basically, those captive-bred falcons would have to live in the wild for some time (hacked) to improve their flight and to get rid of bad habits like being too dependent and aggressive towards the other falcons in the group.



296 & 297- A juvenile gray gyr falcon showing its front and back. Doha, Qatar 1993.





299- A juvenile dark gyr falcon belongs to Prince Turki bin Muhammad bin Fahd Al-Saud.
The Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia 2005.

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*300 & 301– An adult white/silver gyr falcon showing its front and back.
The Eastern Region Falcon Clinic, Saudi Arabia 2005.*





302– An adult male white gyrfalcon bred and owned by the breeding project of the Ciesielski family, Cologne, Germany 1989.





304— A juvenile dark gyr falcon. Doha, Qatar 1986.



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305– A one year adult dark gyr falcon.

306– This is a one year adult dark gray gyr falcon. Both of these (305 & 306) are of the group of gyr falcons which belong to Prince Turki bin Muhammad bin Fahd Al-Saud.

307– A juvenile Gray gyr falcon.

308– A one year adult gray gyr falcon of the same group which belong to Prince Turki bin Muhammad bin Fahd Al-Saud.

The four falcons have been photographed in The Eastern Region Falcon Clinic, Al-Khobar, Saudi Arabia 2004-2006.

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309– (Right) An adult white gyr falcon.
The Eastern Region Falcon Clinic, Al-Khobar,
Saudi Arabia 2006.



310– (Below) A one year adult white gyr falcon.
The Eastern Region Falcon Clinic, Saudi Arabia 2004.



*311– A juvenile white/silver gyr falcon.
The Eastern Region Falcon Clinic, Al-Khobar,
Saudi Arabia 2005.*



*312– An adult white gyr falcon.
The Eastern Region Falcon Clinic, Al-Khobar,
Saudi Arabia 2005.*



313- An adult silver/white gyrfalcon. Since the hybrid falcons started to come to the Gulf market in the early 1990s, there has been no limit as to the shape and colour that the hybrids could possess. Many of the hybrids are in fact “tribrids”, but the precise proportions of the falcon's ancestors are unknown. In some cases even the breeders do not know the exact background of their captive-bred falcons. The Eastern Region Falcon Clinic. Al-Khobar, Saudi Arabia 2005.

A photograph of a falcon perched on a person's hand. The falcon is in profile, facing right. The background is a light blue fabric with a repeating geometric pattern of red and white diamonds. The text 'TAMING AND TRAINING OF FALCONS' is overlaid in the center of the image.

TAMING AND TRAINING OF FALCONS

Before we can go into a description of the steps of taming and training falcons, it should be noted that the process is not at all always fixed from A to Z. A discussion of taming and training can become very complicated. There are many variables, and every falconer trusts his own approach to falcon taming and training, which, in many cases has been inherited from his father, an older falconer in the family, or in rare cases he may have developed his own teaching style through experiences with different falcons. This does not necessarily mean that a certain falconer disapproves of other falconers' methods. On the contrary some falconers admit that others do better than them in certain cases, with certain falcons. Many falconers are ready to use and welcome the ideas of others, proving that they are good listeners although they might not necessarily adopt those suggestions. Very few falconers can begin to change their training methods, even when encountering a particularly difficult falcon which might respond better to a different approach. It is very much dependent on whether the falconer is able to recognize different temperaments in his falcons and on his understanding of falcon behavior in the wild. Species, form and age of the falcon clearly affect the training procedure. A haggard falcon will be more difficult to train than a juvenile, as the adult would certainly not accept captivity as quickly as the juvenile, which has only lived in the wild for a few months.

Those falcons which have come from Iraq and Iran will probably have their eyelids stitched together. By the time they arrive in the markets they will have calmed down considerably, although they will keep on objecting to and rejecting the touch of the falconer. The first thing to be done, after purchasing the falcon, is to remove the stitches and put on a leather hood. Leather jesses are commonly used for newly caught wild falcons because they are stronger and resist the falcon's powerful bites in its first few weeks of captivity. These jesses will be changed for cotton ones later when the falcon has given up biting them. The falconer will carry his hooded falcon on the fist as long as he can, night and day, maybe for up to twelve or fourteen hours a day. If the falconer tires he might ask a trusted friend or his son to carry the falcon for some of the time as well.

Carrying the falcon is an important first step to acclimatize the falcon to the feeling of being surrounded by people. The falcon may not be fed for three to five days until it shows it is hungry and is ready to eat what the falconer offers it. If the falcon at this stage flaps aimlessly while hooded, then the falconer will spray its head, neck, breast and under the wings with water. This spray helps to stop this aimless flapping. Naming the falcon and getting it used to its name is useful to draw its attention to its master, but it is not usually decided at this early stage and left until later when the falconer sees more of the falcon's performance. The falconer will massage the falcon's neck and breast to make it aware of his

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314- The falcons feeding on the “Shabba” while hooded, soon after their arrival at the falcon market. Here, these are exhibited at the falcon trader's house waiting for the buyers to come and bid for the ones that they want to buy. Doha, Qatar, 1987.



315- A newly arrived, haggard, saker falcon is going through the process of taming. It is carried by the falconer for very long hours before it successfully passes this stage. Doha, Qatar 1989.



316- Carrying the falcon on the fist and taking the hood off its head from time to time is important when starting to train the newly tamed falcon, and to give it the chance to get used to its surroundings and to its falconer.
Sudan 1983.



317- Most of the tame falcons start to accept the hood very quickly when they get used to it after the long periods of hooding. Hooding might last for more than several days continuously especially before they are sold to their final owner or handler. However, it seems that accepting the hoods by the falcon is very much related to how much comfort the hood affords the falcon. Yet, some falcons could have severe injuries caused by the hoods to their eyes when they do not fit properly or when they were not placed they right way on the head, or when the hood laces get inside between the eye and the inner surface and keep touching the eyeball. Doha, Qatar 1984.

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presence and touch. At the beginning the falcon will certainly resist this kind of approach and touch, and will show its aggressive reaction by fluffing out its feathers and giving the “Khiiiiikh” sound in alarm and turn itself around, trying to avoid the touch. I have seen many captive-bred falcons which proved to have a wilder reaction when they were first caught and taken out of the flying or breeding pen. In fact wild trapped falcons, whether passage or haggard will calm down much quicker than most of the captive-bred falcons. The falcon might also attempt to grasp the hand of the falconer in a quick movement of one foot if it has been annoyed more than usual. Later on, the hood will be taken off and placed back quickly to give the falcon a chance for a quick look at its surroundings. The falcon may be given some food while hooded. Afterwards the falconer will give his falcon very small but frequent meals during the day. At this point the falcon ought to realize that the falconer does not intend to hurt it, but this does not necessarily mean that it will stop flapping aimlessly from time to time. During this step the hood will be taken off the head of the falcon for a longer time and an attempt will be made to direct its attention to the presence of food between the falconer’s fingers. The falcon should then search for food as soon as its hood is taken off.

318- A juvenile, captive-bred, gyrfalcon is carried on the hand of H.E. Sheikh Khalid bin Ali bin Abdullah Al-Thani in the car. This is important for the taming of the falcon to get used to being unhooded in the car without unnecessarily bating. Doha, Qatar 1985.

319- Falconers know that the peregrine will almost always bate unnecessarily, even when it is hooded. It is very important to have it reduce its response to outside movements and not to bate that much. Its feathers are of high importance and concern to the falconer and they always get damaged and break due to bating and hitting the sharp surfaces of the surroundings. Somalia 1986.





320- The falconer will spend more time with the falcons which do not respond well to taming. They would always be his main concern until they start showing him that they are actively responding to him and showing a good, keen and quick feeding response. Sudan 1983.

The next step is calling the falcon to jump to the falconer's hand from a short distance of not more than one foot and this is achieved by attracting its attention with a piece of meat in the falconer's hand. This will continue until the falcon responds to the falconer's call with no hesitation and jumps very quickly to his hand. The distance will be increased gradually after that, and the falconer will continuously call the falcon loudly by the usual common call or its name if he has already given it a name, and he will have to keep on doing this throughout the training period. By keeping the same name and calling in the same way some falcons will recognize their names and will eventually respond only to their names, even when called in the presence of other falconers with their falcons.

Next comes feeding the falcon on the lure which is made of several dry wings of houbaras to form something like the body and wings of a houbara. A piece of meat is fixed to it and partially hidden. If the falcon has experienced hunting a houbara or similar birds it will jump to the lure without hesitation. If it has not, the piece of meat which is fixed to the lure will be enough to attract its attention, and encourage it to jump to the lure. When the falcon gets used to the lure, the falconer will then start calling it from a distance and gradually increase the distance until it exceeds ten meters. The



321- A newly arrived, juvenile saker will still be carried on the fist for a complete course of taming. Sometimes the falconer enjoys carrying some of his falcons more than others, depending on their behaviour when they are carried or their performance in hunting. Saudi Arabia 1988.



322- *The peregrine is feeding on a pigeon which was used for calling it to the lure. This peregrine still has its leash tied to the long string, and is not freely called to the lure. Sudan 1983.*

call from a distance is always only done once a day which is mostly in the afternoon before the sunset. The falcon will be hooded and carried on the fist and a long strong string tied to its leash or swivel. There should be another falconer who will stand away at the distance suggested for the call at this stage of the training, the falconer is usually the owner of the falcon or the one who is handling and training it. He should be carrying the lure with the piece of meat or part of a pigeon's body fixed to it. Then he will call the falcon by its name several times while it is still hooded. The falconer who is carrying the hooded falcon will then take the hood off the head of the falcon, and the falcon should fly to the lure as soon as it sees it. The falcon should be fed fully so that it will associate the lure with food and therefore, when later on it sees the houbara moving or flying, it will think of satisfying its hunger.

These are the most important steps in training, the rest is a matter of time. When the falconer can trust the falcon to fly freely without being tied to the string when it is called to the lure, the lure will then be tied to string about five meters long with which the falconer who calls the falcon, will be waving the lure in different directions. The falcon is supposed to keep on trying to grasp the lure in flight, and the falconer will keep on waving the lure just to increase the maneuverability of the trainee falcon.



323- *Tying a piece of pigeon breast to the houbara lure. Doha, 1985*



324- This beautiful lure was a prototype "flapping wing" styled to look like a Houbara bustard. This lure was made by Frank Beebe. When swung on a line attached to a fiber glass rod, they are used to exercise falcons. Photographed in B.C. Canada, 1995.

The technique of calling the falcon to the moving vehicle has been adopted and practiced recently by most falconers. It is done by waving the lure out of the vehicle's window and driving the vehicle straight while the falcon will keep following the vehicle. It is up to the falconer who is driving the vehicle to decide how long he should keep driving and encouraging the falcon to follow the moving vehicle.

The final step of training is releasing a live houbara to the falcon after cutting some of the wing feathers to restrict its ability to fly away in case the falcon cannot catch it. This step is certainly dependent on the availability of a live houbara which, when available, is mostly used to train only one falcon, especially valuable ones. This is because some falconers believe that the trainee falcon should eat from the first few live houbaras on its own and it is unwise to try to cheat it by taking its first two or three kills alive from its talons. This is sensible since some falcons are perceptive and get angry if they are tested in this way and might show no more interest in hunting. When the falcon succeeds in hunting the houbara which was used for training purposes, it will be called a learned falcon. When it succeeds in the real hunting of wild houbara, it will be called and considered a hunter falcon.

Taming and Training of Falcons



*325-Swinging the lure to the falcon, is the same technique which is used by the falconers in the East and the West.
Doha, Qatar 1984.*

These are the steps of training wild falcons, both juvenile and adults which have recently come into captivity. Those adult falcons which have spent the last year or more in the wild (haggard) may exhibit different individual behavioural variations and need different emphases in their training. They will certainly need a longer time and more patience for taming. Some captive adult falcons might be semi-tame when they finish moulting and are carried on the fist again. Most of the falcons which have been kept from the previous hunting season have had the experience of hunting houbaras, so clearly they would not need the last step of training which is the hunting of a released houbara. These falcons only need to be tamed again and called to the lure. Some falconers who trust their adult falcons which have just been taken from the moulting room might even release them after a wild houbara if they see one and do not have a fully trained falcon with them. The falconer would feel in this situation that it is well worth taking the risk of releasing an adult and sometimes a trainee falcon in the hope that it might catch the houbara.



326- This is the way of using this long string to control a possible deviation in direction of a newly called falcon just before it is freely called to the lure. It differs from that of calling the falcon while tying its leash to the string, by having this string going through the ring of the swivel of the leash, to control the direction of the falcon when it flies to the lure. Doha, Qatar 1984.

327- The falcons are on their perches waiting for their turn to be called to the lure. Some of them are already un-hooded which would encourage them to get ready for the exciting time of being called to the lure, or this is what the owner of these peregrines believe. Saudi Arabia 1988.





328- *Calling the falcon to the lure is mostly just before the sunset. Doha, Qatar 1985.*



Taming and Training of Falcons



329- The first successful hunt by a juvenile peregrine is always rewarded by the falconer who insists on assisting the falcon to feed from its prey. This helps to give the falcon the impression that the falconer is always kind to it. Saudi Arabia 1984.

330- The falconer always tries his best to save the houbara alive from the talons of the falcon. It could be saved for the purpose of using it for training other falcons, or to be kept for an unlimited period in an aviary as a prestigious spoil of hunting. Saudi Arabia 1984.





331- A juvenile peregrine which is obviously very much loved by its owner, who, with another attendant falconer, is very keenly enjoying offering or teaching the peregrine to feed on the houbara's neck. Saudi Arabia 1984.

It normally takes ten to fifteen days to tame and train a wild falcon. The younger the falcon, the shorter the period needed for its training. However, some forms of sakers prove to be more difficult than others, but there is no standard rule to this. Although peregrine falcons usually flap more than sakers even when they are hooded, they take less time and effort to train than the sakers. The falconers of Qatar, who are known to be very fond of the peregrine, call the peregrine “Abu Leilah” which means it needs only one night to start responding well to the taming. This is mostly because it cannot tolerate starvation for a long period, so it responds to taming and training more easily and quicker than the saker. This point is rather exaggerated, as I have seen some peregrines which needed a much longer time before they started responding. Most experienced Arab falconers never like to tame their falcons to the extent that they become like the hand-reared domesticated birds. They believe that, if they were to train their falcons to that extent, they would affect their keenness and hunting ability and make them too dependent and this would impair their expected performance. However, it is not uncommon to see some trained falcons stand still on the perch or the fist and not object in the slightest to their mouths being opened by the falconers while they are hooded or unhooded if the falconer wants to make a routine examination or to administer a tablet or piece of sugar candy.



332- A juvenile, female peregrine falcon drinking from a small Arabic coffee cup. This peregrine is of unknown origin. It is very common to see very tame peregrines which drink water from the hands of the falconers without hesitation. Photographed and courtesy of Rik Van Lent Jr. 1995.



Taming and Training of Falcons



333- An obviously inexperienced falcon which has already been helped by cutting the throat of its prey, the houbara, with a knife to bleed it, so that the peregrine can concentrate on the blood from the neck and get used to start eating from the neck. Cutting the throat of a houbara probably means that it will be eaten for dinner later in the evening. Saudi Arabia 1984.

334- Feeding the juvenile peregrine on the hare, which is mostly when there are not enough houbaras available for all the falcons. Pakistan, 1988.





THE HUNTING SEASON AND THE HUNTING TRIP

The start of the hunting season is related to the availability of the houbara and juvenile falcons in the country. It starts in November, although interest in news about newly arrived falcons, proposals for hunting trips and preparations for them would certainly start earlier than November. In the middle of September, falconers start talking in the *Majlis* about the new falcons which came to the market and those which have finished or are about to finish moulting. Falconry equipment, like hoods, jesses, leashes, gloves and the “Mangalas”, which is the tube shaped container made of thick padded canvas or carpet, and has been the Arab's traditional means of carrying falcons on the fist for many centuries. The wooden perches will be purchased and kept ready for when they are needed. When the falcon finishes moulting, its old jesses and leash will have to be changed. There are two kinds of jesses and leashes used by Arab falconers. The thin light jesses and leash are used for the hunting season, and the thick heavier ones are used during the moulting season, both are made of hand woven cotton and nylon mixed thread, with small pieces of leather attached to it that go around the falcon's legs and other leather pieces to connect the segments of the leash to each other and to the portable wooden perch. A new hood will be tried for the falcon at the beginning of the new hunting season, especially if the old hood was not very comfortable to the falcon and not of good quality.

The new juvenile falcons will appear in the *Majlis* perching on the usual wooden perches (*Wakir*) if there is a spot of sandy floor especially made for this purpose. If the sandy floor is not there, the perches will mostly consist of concrete or plaster blocks, which are covered with a piece of canvas, old carpet or, in recent years, by Astroturf and another piece of canvas or old piece of carpet will be placed under the block to protect the floor or the fitted carpet of the *Majlis* from being spoiled by the falcon mutes. There will normally be many falconers in every *Majlis*, and their number depends on how rich, or how powerful, the *Majlis's* master is. These falconers are not necessary working for the master of the *Majlis*, nor should they be carrying his falcons. The falconers in the *Majlis* would normally be busy talking about many different topics, although falconry news is their priority. They will be sitting around with their falcons either on their fists or on the blocks when they have some time for rest. Most of the falcons will be hooded and most of the falconers will be cautious of any possibility that their falcons could catch a disease or a bad undesirable habit from other falcons. Hooding or not hooding a falcon depends on the character of the falcon and its stage of training, as well as the surroundings. Every falconer has his own opinion in this respect, and all falconers claim that they differentiate their technique according to the behavioural characteristics of each falcon. The falconers who attend each *Majlis* could be the master of the *Majlis*, his sons and relatives or his companions who carry and train the falcons. There are always

The Hunting Season and the Hunting Trip



335- This group of falcons belong to Prince Turki bin Muhammad bin Fahd Al-Saud, in the reception of the Eastern Region Falcon Clinic. They are to be clinically checked just before they leave for a hunting trip to Tunisia. Al-Khobar, Saudi Arabia 2005.



The Hunting Season and the Hunting Trip

friends and guests visiting the master with their favorite falcons on their fists. Carrying a falcon while paying a visit to a relative or friend is usual and part of the tradition related to falconry in the Gulf in general. This is not necessarily done by every visitor to the Majlis. It is usually when a visitor has a new falcon and, as part of the taming and training of the new falcon, it is better to be carried as much as possible, especially to places where there are many people who might make a bit of noise! It is meant to force the new falcon to get used to the surrounding noise, so that it would not react badly and bate when it is surrounded by noise.

During the hunting season we see falcons everywhere, in the market, in the Majlis, in cars, in offices and sometimes even in bedrooms, as some falconers claim that they like to constantly keep their valuable new falcons very close to them, to avoid any damage they could inflict on themselves, in case they get scared or irritated by anything that makes them flap aimlessly while hooded. This is certainly a common phenomenon during the first few days or weeks of the falcon's life in captivity, when it has just recently been purchased by the falconer, and therefore it normally does not last very long. Everything has to be arranged to suit the needs of the falcons, their feeding, taming and training. Everything will be carefully watched. The kind of food, its freshness and the way the falcons eat, whether they eat lazily and slowly, or aggressively and quickly, and whether they show any signs of reduced appetite or not will be analysed. The mutes will be watched critically and examined with the naked eye, as well as the way the falcon stands, whether it seems happy and alert or not, and whether it tends to lift a certain leg more than usual. The falconer will examine the soles of both feet more than once every day. The soles of the falcon's feet are of the highest importance to the falconer and the utmost cause of his worry. The way the falcon holds its wings will be observed when the falcon is on the fist and when it is on the perch away from the falconer. Arab falconers do not like the falcon to drop its wings, although they will not be so worried when this happens as a result of exhaustion, due to different reasons like excessive flapping while on the fist or in the car, which will mostly be considered as the only cause when they see signs of the wings dropping. When the falcon stands unhooded on its perch or block, it will be watched from a distance to see if it tends to close one eye, both eyes or if its eyes are watching alertly and sharply. It will be watched if it sneezes or not, whether a sound can be heard during respiration. In short everything and every sign which could indicate the possibility of sickness or lack of fitness will be watched and investigated. An increased respiratory rate, which could indicate possible respiratory trouble, is one of the most important things which falconers are aware of and worry about. Arab falconers understand all these signs, but they only care so much about them during this critical part of the hunting season. It is very

common to receive late telephone calls almost every night during the hunting season from falconers who first apologize for the late call, and soon start describing signs which they have noticed on the falcon, which in turn caused them to worry and made them call so unusually late! This mostly happens with those falconers who have just purchased newly trapped juvenile or haggard falcons. These calls equally reflect the high standard of health and fitness sought by the falconer for his falcon, although it does not necessarily mean that it is of significance to the general health of the falcon. A falcon veterinarian cannot do much for a falcon which sneezes once or twice in the day or lifts its leg for a few minutes or drops its wings while standing on the



336- These three saker falcons are carried in the boot of the four wheel drive car by a falcon trader, who is taking them to be privately exhibited for sale to certain VIP falconers. The same technique of transport of falcons is used to carry the falcons for hunting trips. Doha, Qatar 1989.

perch! A keen falconer is always ready to talk and argue on the telephone for an unlimited time because of indescribable changes in the colour of the mutes, or because of one sleepy eye or a slight increase in respiratory rate! Most of this could be attributed to the fact that, when I started my work with the falconers in Doha, Qatar in 1981, most of the falconers were so friendly with me on the one hand, and I myself was interested and keen to build up good relations with them so that I could understand them better and understand their ways of describing the condition of their falcons. So I did not mind their way of approaching me when they called my home number, or when I met them in the market or an any *Majlis*, and it was so easy to make everybody look like a friend. But it was too late when I discovered that it is very difficult to even partially prevent this friendship from badly affecting the real scientific or business side of my clinic. It is certainly due to the fact that I was not charging the falconers for the "Consultations on Air" nor for the consultation in my clinic if it turned out that the falcon was not suffering from any kind of sickness. One of the falconers who was a real friend came up to me one day with this advice that, I should not give the falconers this advantage because they will not stop or give up expecting free treatment until it has gone on so long that it will be impossible to try to stop them. Then they will say that I have become so rich that I do not need their time-consuming business any more. Also, he told me that if it was someone else, he could have become a millionaire. I could not become a millionaire, nor was I able to get many of my bills paid, so it is very clear that I have had a long-term losing battle financially. But at least I can say that I have seen many falcons which suffer from many unusual conditions and different forms of saker falcons - probably far more than I could count. Also, it means a lot to me when those falconers, who know me well, call me when I am overseas in England or in Canada to have a free consultation on air, although I should not deny that some of them were calling just to say hello and to ask about me and my family. This was especially true when I left Doha, for Saudi Arabia in summer 2002, and many of them were really sad and disappointed because of that move, while others in Saudi Arabia and Kuwait were very pleased because I had moved closer to them, and they did not need to cross so many international borders to reach me. I paid for everything myself, both financially and in terms of time and effort. It was easy from the start to understand and interpret people's behaviour and predict what would happen after I had made the move, but I was prepared myself and had a very high budget in mind for this long learning curve.

Everything related to the falcons and hunting trip will be equipped and planned as if it is a military operation. Because the wealthy enthusiasts concentrate on the newly arrived falcons, they will, in many cases, find themselves unable to follow the news and progress of most of their adult falcons which they have been keeping throughout the last moulting season. In many cases only those falcons which have shown extraordinary fitness, skill and keenness will be kept, and those who only displayed average quality and performance will probably be given to friends and relatives, or even sold. Recently, when places and countries to which Arab falconers have access for hunting became scarce, many falconers started to concentrate on hunting in their own countries. Since the Gulf countries do not usually attract big numbers of the limited migrating houbaras, it is very important for the falconers, especially the young ones, to get ready as soon as they hear the news of the first houbaras



337- Falcons at the beginning of the hunting season spend most of the time in this room. These belong to a VIP who is a keen falconer, and, as usual, they are carried by different falconers during the day. Sometimes, if they need more, special attention, they could stay with the falconers who are in charge of their taming and training for longer times of the day and might spend the night with their falconers.

Doha Qatar 1983.

The Hunting Season and the Hunting Trip



338- The falcons on the cement blocks, which are covered with ordinary seed sack canvas. This was the normal way to have falcons in the Majlis since the 1970s and is still used by many falconers. Doha, Qatar 1984.

339- The falcon on this perch, which is modified for use in the Majlis. Its base is of a stainless steel tray and the perch is attached to it with a screw underneath. Doha, Qatar 1985.



340- Two peregrine falcons on this small size Shabba, which is mostly used to transport the falcons on certain flights which permit the carriage falcons in the cabin. It is also used by falconers in the four wheel drive vehicles on the hunting trips and otherwise. Al-Khobar, Saudi Arabia 2006.

landing nearby, and because these first houbaras normally arrive quite some time before the newly caught falcons start to appear in the falcon market, demand for the moulting adult falcons which have finished their moulting has very much increased. This is why Arab falconers want their moulting falcons to finish moulting and get ready during September and not after.

When the wealthy falconers start buying new falcons, they will not restrict their purchases. They are often ready to buy very good looking unusual falcons at any time during the hunting season, some of them to be used for their own falconry, while others will be sent as gifts to relatives and friends of the same social position. Wealthy falconers will not forget their friends who are interested in good falcons but cannot always afford to buy them. If someone, who is particularly liked and respected by a relative or a friend, exhibits a keen interest in a certain falcon in the *Majlis*, he will then very probably be given it. It is commonly believed that some falconers can exert supernatural powers over other people's falcons and make them deteriorate or even die. I have heard many strange stories about this, but although they are hard to believe, they are authoritative as they were told by trustworthy people. Many wealthy falconers tend to keep their very unusual falcons, like the very pale and the very dark sakers, indoors and never give the stranger falconers, especially those who are well known as having some kind of supernatural power, the least chance to see those falcons.

The hunting trip is almost the eventual end of the hunting season. Very few Arab falconers can be fully satisfied without going hunting for days or weeks away from home. The hunting trips could be organized for a large number of people which could exceed several hundreds, or they could only be for small groups of only a few persons including the labourers, drivers and helpers. Groups of large numbers of hunters could only be organized and sponsored by Princes and very wealthy Sheikhs. Usually

341- The falcon on the average size *Shabba*, which takes three or more falcons, and is used for transport of the falcons on flights or in the hunting vehicles. Doha, Qatar 1985.

every falconer participating in such a trip of a large number of people will be carrying and looking after one or more of his master's falcons. He will need an authorization from his master before he can carry his own falcon with him on the trip or wander around in the hunting area on his own in the way he likes, unless he had specifically been asked to train his master's falcons, or look for prey for a specific falcon which might be newly arrived and would not have a good chance of being released amongst the big number of falcons which are skillful and known for their hunting ability. All the falconers will be carrying their master's falcons, and their movements will be restricted and organized either by the master himself, or someone in the cases of very large number groups. This falconer, who will mostly be nominated by the master himself, will be in charge of this management, which needs a complete knowledge of all the falcons which are taken on the trip, their stages of training and degree of skill. He should always follow the news of the falcons from the falconers who are handling them. He needs to be able to express his own idea about each falcon, and to report verbally and daily to his master about the falcons, and how they are doing, including their health. He should also report daily to his master some points about the falcons, like those which have reached the stage of hunting so that they could have their turn in the usual hunting day.

Smaller groups of hunters could either be sponsored and organized by a Sheikh or a wealthy person, who might in many cases invite some of his relatives and friends to accompany him on the trip with their own falcons. The destination in these cases could be as far as several hours' flight, and then driving for several hundred kilometers until reaching the hunting spot. Or it could only be several hours driving on land. Other smaller hunting parties could be arranged and organized by several relatives or



342- Hunting falcons on the hind seat of the hunting vehicles is a common scene during the hunting season. Saudi Arabia 1984.



343- A hooded saker falcon in one chamber of the canvas and wooden box, which is used to transport falcons by air. Doha, Qatar 1992.

The Hunting Season and the Hunting Trip



344– The falcons on the Shabba in the passenger cabin.
Doha, Qatar 1983.

345- A group of saker falcons belonging to Prince Turki bin Muhammad bin Fahd Al-Saud, enjoying the early morning sun, just before starting a new day of hunting in the desert of Tunisia. The falcons mostly spend their nights in this large tent, made of goat hair, which is the sitting room where the Prince and his falconers sit in the evenings. Tunisia 2002.

friends of middle-class people, who are mostly not veteran falconers and will normally share the general cost of the trip. In this kind of hunting trip, the destination will not be very far from home. It is usually an easily accessible destination of only a few hours' driving overland.. Hunting trips of very small parties could also very easily and quickly be arranged between friends. The destinations of these trips are never far from home, and their duration might only be a few days. It might be considered a frugal hunting trip in which every low income falconer could participate with his friends. This kind of hunting trip mostly suits those falconers who are commit-



ted to their own private business, or duty if they are government or private employees and unable to get a longer leave of absence. These kinds of hunting trips are the most common in recent years, while very large expeditions are decreasing in number due to several reasons, the most important of which is the difficulty of getting governmental permits to practice falconry and hunting in several countries.

The really long hunting trip is the time when falconers might spend four to eight weeks away from their homes, families and business in the desert. For very wealthy falconers these days the hunting trips need no longer be frugal. It is possible to provide every comfort as long as there is enough capital to support and finance such trips.

For a long trip, someone must be in charge of organizing everything that will be required, from the basic everyday vehicles to those high performance pursuit vehicles which are used by the falconers.

Food – both dry, canned as well as the fresh food which is obtainable locally - must be arranged to be available for everyone participating on the trip. Tents and hospitality furniture to furnish the tents, like carpets and sitting mattresses, should be available. Sleeping mattresses and blankets are normally taken by each person for themselves. Dry food stuffs, mainly rice, flour, sugar, tea, coffee, salt, canned, condensed or powdered milk and spices, are all prepared in advance and taken in amounts far more than enough for the period of the proposed hunting trip. Meat will be mostly provided by live sheep or goats which can be obtained from the nearest livestock market to the hunting area. In many cases and when applicable, live food would preferably be purchased daily along the way during the whole period of hunting. Empty barrels are usually taken to be filled with petrol and water when in areas where these are not easily obtained. I have seen on a hunting trip a very large and powerful electricity generator which was carried on a heavy duty truck, and was enough to supply electricity to a large number of tents, which were all illuminated, and to many TV sets and electrically-operated equipment, like my microscope. In most cases, a medium or small electricity generator will be needed to provide power, mainly for lighting, which is essential on a hunting trip. Sitting together during the cold nights in front of a fire is something very much loved by Arab falconers when they like to talk about the events of the day, and maybe remembering past events, discussing everything related to the hunting trip, or maybe everything related to life in general. Spare parts for the vehicles like, tyres and motor oil and others will be taken in considerable quantities. Most of the chase and patrol vehicles are provided with small refrigerators. Wireless transmission equipment has become very commonly used to control the movement of the vehicles and some are powerful enough to be able to connect the members of the group with their homes in many cases. When the mobile phone was unknown or not as available as it is now, I still remember in 1983 while we were on



*346- The falcons spending the night outdoors on a mild night, or when the group consists of just a few falconers and they have no intention of putting up a tent.
Saudi Arabia, 1987.*





347- It is the early morning and the falconers are still sleeping if there is no intention to move to a new location. Sudan 1983.

a hunting trip in the Great Sahara, Sudan, we were in contact over the wireless with another group of hunters whom we knew and were hunting in Pakistan. The central equipment for that communication was in Doha, Qatar and was connecting the two far distant groups. We were following the news of how they were doing with their falcons and they were asking us how we were doing with the wild antelopes of the great Sahara. A more simple wireless is now available to almost every falconer, and it is very important to connect the group of falconers with each other, and control their movement, especially in areas where there is no transmission service to the usual mobile phones. The service of the wireless transmission is efficient in connecting between moving vehicles. Its simplicity and facility, in addition to the fact that it is a free service, have made it invaluable to all falconers on hunting trips, including hunting trips made by small groups. A number of live pigeons are usually taken to feed the falcons when no prey is available, and are used to call the falcon if it has been released, but failed to catch its prey.

There are two main kinds of hunting trips that have been made in recent years by the Gulf falconers. First is the trip to nearby countries, such as those of the Arabian peninsula or the countries close to it like Iraq and Syria, to a lesser and limited extent. Second is the trip to countries further away from the Gulf, and where hunting is legal, provided an advance licence is obtained, such as Pakistan, Morocco, Tunisia, Mauritania, and, sometimes, and to a lesser extent, to Niger, Sudan and Somalia. Things have changed dramatically during the last ten to fifteen years, concerning the hunting countries and the legality of hunting.

Iraq as a hunting country has always been very much sought after by all the Gulf Arab falconers because there are plenty of houbaras in almost every spot in the country, and they appear in groups of maybe more than twenty. The large number of houbara groups have been described to me by many trustworthy falconers. The legal situation of hunting in Iraq has changed every now and then, depending



348- *The falconers are packing up in the early morning to move to a new location. Everybody knows what he is required to do. The falconers would be packing up their own personal belongings, their bedding and, of course, the falcons. Saudi Arabia 1984.*

mostly on the political situation in the country. While hunting was totally banned for some years starting from the mid-1970s until the end of the Iraq - Iran war in 1988, some special hunting permits were always granted to certain VIPs from the Gulf countries. Also, it was known that Kuwaiti falconers were at that time more or less legally allowed to enter Iraqi territories and land for hunting. They did not need a visa or a hunting permit during that time, until the invasion of Kuwait took place, when everything suddenly changed and Iraq was boycotted by all the Gulf countries, and when politics for the first time played a positive role in keeping the lands of Iraq devoid of falconers and hunters, and for the houbara to have a better chance to live for few years longer so that they could breed and multiply. Then, starting from the mid-1990s, every year a few hunting permits started to be granted to the Government of Qatar. Those permits were used by certain nominated Sheikhs to organize hunting trips. But, hunting was allowed to almost every Qatari falconer. In addition, there were some others from other Gulf states who were obviously able to accompany them, maybe by using their normal visitor's visa to enter the country and then join the group of hunters. Or possibly they were clearly joining them at the time when they were entering the country, because no Iraqi border officials were able, or wanted, to object to a hunting

party permitted by the highest authority in Iraq. Those hunting permits were certainly based on certain political interests, and their limitations were rarely based a desire for conservation. Those hunting trips continued even in 2003 after the war to change the regime in Iraq



349- *The falcons on their perches in the early morning before departing for a new day's hunting. Saudi Arabia 1984.*



350- The last morning coffee, just before departure for hunting and just before removing the tea and coffee pots “Dalla, Dillal”. One of the hunters would happily be doing the job of pouring small coffee cups for himself and others. This is when the servants are busy with the other jobs of arranging different things before leaving the spot. Offering coffee to friends in the group is not something that Arabs consider as an inferior task. On the contrary, it is a sign of generosity and hospitality and something to be proud of. Saudi Arabia 1984.

started. Some adventure-loving Qatari falconers, whom I personally know, went into Iraq with their falcons for hunting even in the year 2004 and 2005 following the change of the Iraqi regime.

During the 1950s and 1960s Iran hosted some hunting parties by invitation or special permit, which were made and organized by some rulers and VIPs of the countries in the area during that time. Hunting



351- The departure of the hunting vehicles and start of a new hunting day. Far in the centre of the picture, there appears a man standing between the first two vehicles close to one of them and he seems to be talking to the falconers in the vehicle about what and where the different directions of the hunting groups might be. This man is one of the few scouts whose duty is to explore the area before the departure of the vehicles for hunting. His day probably starts even before the sunrise. Saudi Arabia 1984.

352- *The houbara using its natural camouflage skill and ability to hide itself. By staying motionless, it would be so hard to recognize its presence from a distance, even by the most experienced falcon. It would be almost impossible to know of its presence by the naked eye of the falconers, and that is why the falconers would be concentrating on the area where they find new fresh foot prints, hoping that the houbara is still there and has not already flown off or been hunted by another group of falconers. Photo courtesy of the King Khalid Wildlife Research Centre. Saudi Arabia 1989.*



353- *This big male houbara, which Arab falconers call “Khirb”, is in the fields and aviaries of the King Khalid Wildlife Research Centre, which was behind the extensive studies done on the conservation and breeding of houbaras in captivity. The centre has also done other studies related to the conservation of wildlife in the Kingdom of Saudi Arabia since the early 1980s. This photo is by courtesy of the K.K.W.R.C., Saudi Arabia, 1989.*

has certainly been totally banned in Iran since the 1960s, although some Sheikhs, until recently, managed, in various ways, to deal with the powerful local officials and get a certain kind of protection which allowed them the chance to practice falconry on a limited scale. They mostly go into the country with only a limited number of people, and they basically have their own property like houses which helps to give them a legitimate excuse to stay for long periods or wander in the area not too far from their property.

For almost two decades Pakistan has occupied the top of the list of countries where falconry is legal and easy, as long as you can pay to the tribal leaders. Those leaders will verbally grant a permit for an unlimited period as long as the payment is satisfactory, and no other party is willing to pay more. If some other falconer soon appears in the area, and is ready to pay more, then the situation will soon change and there will be new demands for either more payment or to leave the area. The excuses for this new situation could be anything. It seems that, starting from the beginning of 1990s onward, the situation of Pakistan started to get more and more difficult with respect to hunting permits, and even the tribal leaders are no longer able to guarantee a permit and protection for a large hunting party. They could be exposed to more and more pressure from the government, which obviously has itself been under pressure of international calls from different countries and international conservation organizations, to have better and more strict legislation with regard to the protection of wildlife. During the mid-1990s

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some of the Sheikhs who had a long experience of hunting in Pakistan, managed to go into Afghanistan, which was almost isolated from the whole world. Not very much is known about how those people got on while hunting there, nor what arrangements were made before entering Afghanistan. From what I heard, they say that they were rarely stopped or obstructed by the powerful tribal leaders, who were almost ruling the country and who are always demanding more payments, as was happening in Pakistan.

The four main countries of North Africa, Morocco, Algeria, Tunisia and Mauritania, are not so strict with falconers with regard to hunting legislation and regulations. Their requirements and demands are not so difficult to fulfill and satisfy. Simply, they almost always welcome visitors, even when they carry falcons on their fists. Also there are some kind of facilities provided for the visitors which could be used by simple small parties of falconers, like four wheel drive vehicles which could be rented from the local car rental companies. Mauritania is said to be providing some more organized hunting trips into the desert even for small parties. It could be because it has not been visited by many VIPs for hunting, while the others like Morocco, Algeria and Tunisia are a bit more difficult in this respect, probably because they are visited every year by VIPs from different Gulf countries. This is obviously a strong reason why the legislation related to hunting in these North African countries, does not clearly welcome the visit of small parties for the sake of hunting and falconry. Niger, Sudan and Somalia are three poor African countries which do not have clear legislation which governs hunting. The process to get a hunting license in these countries might only consist

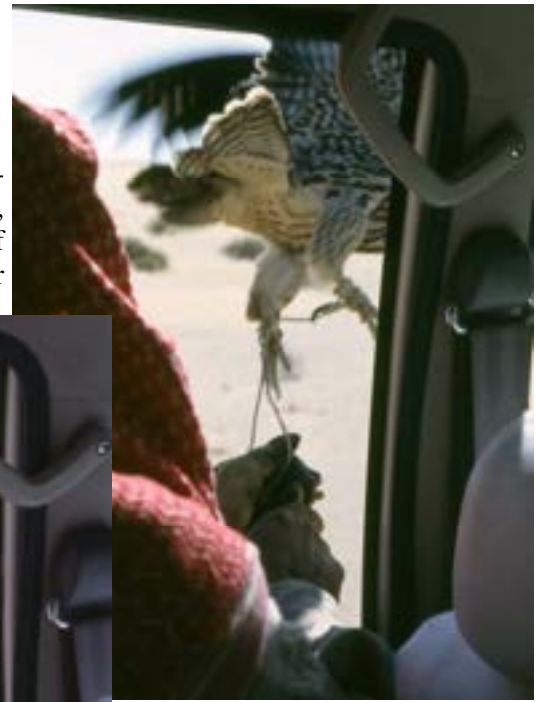
of knowing an official in the acting regional government, or maybe only a tribal leader. During the 1980s, both Sudan and Somalia welcomed hunting parties as long as they knew how to approach the core of their governments. The exportation of live wild animals and birds, which are the harvest of some of the hunting trips, out of these two countries was not and still is not that difficult.

Libya is known by many falconers as a good country where houbaras are very common in its vast extensive desert. Although it has been visited only by a limited number of falconers, the word about its desert nature and how houbara are available, has already spread throughout the Gulf falconer community since the early 1980s, or maybe even earlier. The Libyan authority totally forbids foreigners from hunting in the Libyan desert. Many native



354- *The fascinating pose and expression of glory on the valuable falcon would very much be appreciated and noticed by everybody. It is certainly not the same when shown by falcons that are not of the same value, nor would there be much interest in photographing them. An Adham, Alticus saker falcon, in the desert of Iraq, 1995. Photographed and courtesy of Rik Van Lent jr.*

Libyans are falconers themselves, and they practice falconry for enjoyment. It seems that most, if not all, of those Gulf Arab falconers, who have been to Libya for hunting, or to get trapped falcons out of Libya, have had their own trusted contact in Libya who arranged for their private visits, as well as their practice of hunting and falconry. I know some friends of mine who regularly visited Libya for hunting and know that sometimes they do not even need to take their falcons with them. They could use their friends' falcons or buy wild newly trapped falcons from there. Falcons, like sakers and peregrines, are not difficult to find or trap inside Libya. However, it might be somewhat difficult to get them out of Libya, though not impossible. It must be said that the falconers I know, who have been regularly visiting Libya for hunting with their Libyan friends, praise the morals and generosity of the Libyan people. It is certainly not like the situation in Pakistan or in any



355 & 356- Releasing a juvenile peregrine from the car. Saudi Arabia, 1984.

357- The juvenile peregrine falcon has been left to feed on the houbara and to be photographed. Saudi Arabia, 1989.



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other Asian or African country, where spending money and paying the local people and authorities as long as the trip lasts, is the only way to be able to finish the hunting trip without trouble.

The possibility of hunting in Egypt has always been questionable. On the outside, it says that hunting, as well as trapping, wild falcons is totally banned, yet we still see many peregrine passages and adult trapped peregrines, sent every year from Egypt to the Gulf falcon market. Some people claim that many of these trapped wild falcons have really been trapped in Libya and smuggled through the desert borders into Egypt. Then they are sold in Egypt falcon traders houses and smuggled out afterwards. Also there are certain Sheikhs and VIPs who regularly visit Egypt every year for hunting. However, they do not go in large groups as they do when they go to places like Iraq, Pakistan, and North African countries.

Since their independence from the former Soviet Union, some of the former Soviet Republics have been hosting very big falconry parties every year, and on a regular basis. Those Republics like, Turkmenistan and Uzbekistan welcome certain VIP parties into their countries to practice falconry. The authorization and granting of hunting permits seem to have to go through certain political leaderships and authorities in those countries.



358- (Above) The falconer is trying to prevent the saker from eating too much of its first prey of the day, assuming that it would be released to chase another prey very soon. Iraq 1989.

Pakistan is the kind of country where people need to travel by air to reach it. It was the most popular country visited by Arab falconers, since the mid-1970s when hunting was banned in Iraq. When traveling to nearby countries, the hunting party can go overland, and, in most cases, send some of their heavy vehicles on ahead. When traveling to countries further afield where an overland trip would be



359- (Right) An adult peregrine is feeding on its prey, while the falconer is trying to get it to face the camera for a better shot. Iraq 1989.

impractical and very arduous, vehicles are normally shipped in advance, while the falconers, falcons and light-weight essential equipment will go by air. Whatever the destination, soon after arrival, a day will have to be spent checking and rearranging everything before moving to the chosen hunting spot. The heavy trucks with the main supplies will establish a central camp (Inna) while falconers in light vehicles with supplies sufficient for two or three days, will move around this spot searching for houbaras. They will report the news about what they see over the wireless communication system to their master, so that he can decide to move to that area, or look for a better place. This is of course, if there is not that many



360- The saluki is sniffing the sand to find the hare which took refuge somewhere around, while the hunters in their vehicle are slowly following it and a cameraman is shooting. Saudi Arabia 1984.

361- Some of the hunters decide they should help to find where the hare hid itself, and are trying to scare it so that it leaves its hide to be chased by the saluki or the saker. Saudi Arabia 1984.



houbaras in the area, otherwise the hunting parties could move around without previous plans, and will be looking for houbaras everywhere on the road and the surrounding land. In case the group of hunters is not that large in number, and there is not a real dominant master for the group, the group of falconers will hunt daily and on an easy and flexible basis. Everyone will be looking for houbaras. The group will return to the main camp if they needed to, if they had had enough hunting, or if they had finished their supplies. Some people will have to stay in the main camp with the heavy vehicles and equipment to take care of the live animals, such as the sheep and goats, which are later to be used for food. Some of the falcons usually stay in the main camp if there are too many falcons on the trip, or if some are still not ready for real hunting, especially when all the falconers are fully occupied with the hunting falcons and can no longer be in charge or carry more falcons.

362- The hare has left its hide trying to escape and take refuge somewhere else.
Saudi Arabia 1984.



363- The Saluki is chasing the hare after it jumped out of its hide, while the vehicles are following the chase and one of the hunters has got out of the car, expecting a very quick hunt to try and take the hare alive before it is killed by the Saluki. Saudi Arabia 1984.



364- A joint chase of the hare by two salukis. There is little chance that this prey can escape.
Saudi Arabia 1984.



365- The use of wireless communication was so important in the 1980s until the mid-1990s when mobile phones became more commonly used. However, in many remote deserts and hunting areas, mobile phones cannot provide a really efficient service, so it is still important to have a wireless system to control the movement of the different vehicles which participate in the hunting trip. Saudi Arabia 1984.

Some countries started to implement new and more strict regulations concerning granting permission for hunting. This is good on the one hand, but on the other, it seems that almost all the new strict regulations could obviously be avoided if someone is ready to pay. Enough money can always keep almost all eyes closed. These new regulations for instance have made a hunting trip to Pakistan much more difficult than it used to be and have given many hundred houbaras the chance to live somewhat longer until the Pakistani farmers come to capture them alive in hundreds and keep them in miserable conditions, packed like sardines in small unventilated rooms, waiting for people to come and buy them. Apparently hundreds of these houbaras are dying before they are sold to the falconers. I have heard from different trustworthy falconers that they have seen many dead houbaras here and there in Pakistani villages where they are caught. They were thrown into places not far from living accommodation and will look like garbage mountains of dead houbaras. Some people say that the technique used by these houbara hunters is the use of fishing nets, which they mount vertically in semicircular areas and then during the night they use torch lights to push the houbaras towards the net until they are tangled in the nets when their feet and wings get caught in the holes.

366- The midday break for the big group of hunters, which almost always belong to a VIP, his close friends and the people who are serving. Saudi Arabia 1984.





367- The smaller the group of hunters, the easier it is to find a nice, clean, peaceful place to have the break of the midday. Almost everything is lighter and easier to handle and the decision about where and when it is the best time to take a break is easier to make. Saudi Arabia 1984.

368- The falcons are on their perches away from the shades when the weather is cool. Arab falconers have always believed that the sun is so important for the health of a falcon. Saudi Arabia 1984.



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369- The falconer is taking the dead houbara to his car. This is probably the first hunt of the day. Saudi Arabia 1984.

During the last two or three years, some houbara trappers have started to operate in Iraq, but the total number of houbaras trapped in this way and smuggled out of Iraq is nothing compared to the number offered by the Pakistani trappers.

A houbara can stay for at least two to three days in an area where it finds food such as desert plants, berries, insects and occasionally small rodents and lizards. The falconers might look for houbara footprints in the sand to track them. It is easy for the expert to distinguish between new and old footprints, depending on the kind of sand or soil of the area and



370- The falconers of a large group of hunters having a break in the midday when angry clouds approach and some rain is to be expected. All the Arab Bedouins love the rain and always pray for rainy days. However, this time there are mixed feelings. Some keen falconers would be disappointed because the rain will force them to stay in the camp unable to go hunting, especially if they only have a limited time off work for this trip. Others, who have camels and sheep, would be happy when they have rain on their land because it would of course encourage the growing of good pastures for their grazing animals.

Saudi Arabia 1984.



371- (Above) An adult saker falcon has been given the chance to feed on its prey for a photo opportunity. Iraq 1986.

372- (Top Right) The falconer is trying to control the amount this hungry adult peregrine is trying to eat from its morning prey. Iraq 1989.

373- (Right) The joy and pride of the pose for the camera with these houbaras which were hunted in the morning session of the hunting day. Iraq 1989.



whether it has been raining or not. Tracking the footprints of the houbara becomes nearly impossible when it rains, or if the land is totally or partially covered with gravel or stones. Another reliable way in which houbaras could be discovered in the desert is the use of an adult falcon which has already known and experienced the hunting of houbaras before and has got used to them. This falcon should have the eyesight to recognize the houbara's movement from a great distance. A falcon like this is to be carried on the fist and some time needs to be taken up a hill and then its hood is removed. Once an experienced falcon like this sees a houbara it will react by extending its neck upwards in several movements while concentrating its eyes on a certain spot, then it will show a desire to fly to that spot when it extends its wings and possibly starts flapping while on the fist and the jesses are firmly held by the falconer. Such a skilled falcon is called "Tala'a" which means "overlooking falcon" or investigator and discoverer. It is important that the falcon should go on the alert when a houbara is around and what the falcon sees, and not for any other unwanted prey, so as to avoid confusion. The falconers will then move towards the direction this falcon has indicated. Then either this falcon, or another, will be released. If there was another falcon



374- The juvenile peregrine is grasping the neck of the houbara which is already dead, and plucking the neck feathers to start feeding on it. Arab falconers love a falcon which goes for the neck of its prey first and they think it is because of experience. Iraq, 1988.

375- The adult saker falcon has already started feeding on its prey, and obviously left to feed and to be photographed. This could be the end of a hunting day. Saudi Arabia, unknown date.



which has been waiting for the chance of release, then it will be given priority. It might be necessary to drive towards the houbara if it was a bit farther than what is considered as a normal distance. Driving towards the houbara will shorten the distance between it and the falcon and the houbara will either give the falcon a better chance of chasing it, or it will startle the houbara which will attract the falcon's attention and make it an easier hunt. Normally the first houbara seen during the hunting trip would be hunted by an adult, experienced falcon and, therefore, an attempt will be made to take it alive. When it has successfully been taken alive, it will be used to train the juvenile falcons which have not been previously

trained to capture live houbara. The *Tala'a* falcon is not necessarily a good looking falcon, and it could be a medium or even a small falcon. Some of those falcons have become accustomed to staying in the car, usually not hooded and without showing any sign of interest in any movement. They would only show their interest and keenness when they see the movement or flight of a houbara. Occasionally some of these falcons when they are not hooded, fly through the window of the car once they see the houbara, when they are intentionally left on the car seat with their jesses untied to their leash. Because of the sharp decrease in the number of houbaras which migrate to the *Gulf* area, the *Tala'a* falcons became very important for hunting and very much sought after by Arab falconers. In spite of the falcon's keen eyesight, a houbara can sometimes outwit it, if it can find shelter behind a small bush and remains motionless, as its plumage provides excellent camouflage. Although houbaras do not differ in their appearance, there are behavioural differences in the inhabitants of different areas. Those which settle in the northern part of the Arabian peninsula where there are many Bedouin tribes who wander

in the desert with their camels and sheep and sometimes go for hunting those houbara with their falcons or rifles, are very cautious, alert and often fly away as they see cars approaching. They mostly fly before the falconers can see them. This could be their best chance to escape from being caught by the falcon. With the exception of peregrine falcons, not all the falcons have the flight speed to reach the houbara in a pursuit if it flies ahead and from a distance. The falconers are not always ready to put their valuable falcons to this kind of challenge, especially when they do not fully trust the flight speed of their falcon. Some Arab falconers might be right when they joke by saying that the houbaras believe that the falcons are driving the hunters' cars, because they usually see the falcons coming out of the cars and fly-



376- A juvenile falcon is feeding on the breast muscles of the houbara, which means that it is the end of the day and mostly the last prey. Leaving the falcon to feed on the breast muscle probably means that there are more houbaras for the falconers' dinner. Iraq, unknown date.

377- The wings of the stone curlew spread and exposed to sunlight to dry them and used as lures afterwards. Tunisia 2002.



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ing towards them. It could certainly be true, if a houbara has already been chased by a falcon and somehow managed to escape, or if it has seen a falcon coming out of a car to chase another houbara in the group, then the car and the falcon will be linked in its mind. The houbaras which settle in the southern part of the Arabian peninsula, particularly in the Empty Quarter, rarely have this kind of experience, due to the rarity of Bedouin tribes and falconers who go to this part of the peninsula. These houbaras may not fly off when approached, and they rarely appreciate the danger when a falcon flies at them, until they find themselves grasped by its powerful talons. If this kind of houbara manages to escape it will fly away, but will land again nearby and might attempt to defend itself against the falcon's powerful second attack. There will be an impressive scene displaying both the natural skill and art of chase and attack from the falcon, with all the excitement of the falconer on the one hand, and the desperate innocent creature's self defence which is exhibited by the houbara on the other.

The houbaras in the *Arabian peninsula* gather in small parties of two or three, although mostly they wander alone in the poor desert of the peninsula. Houbaras in *Iraq* and *Iran* mostly gather in larger groups and the number could exceed ten houbaras in one group. This is apparently because of the richer desert land of *Iraq* and *Iran*, which can provide abundant pastures for a larger number of houbaras. Also the houbaras in *Iraq* and *Iran* are believed to be much stronger and faster than those of the *Arabian peninsula* and *Pakistan*.

The hunting trip to the *Empty Quarter* is one of the most difficult trips because it needs as large a number of participating people as possible, and the best and most powerful desert vehicles. It needs plenty of food and water and reliable trip guides who should have the best desert knowledge. The Empty Quarter is almost entirely formed of sand dunes which are difficult for drivers to traverse, even with the best four wheel drive vehicle. These sand dunes are very difficult to climb and are even more difficult to descend, once you find yourself at the top. There is always a great possibility that the vehicle could turn over while descending from the height on the very soft moving sand ending in a disaster. Accidents on hunting trips have always been very common and their nature and causes vary. However I have never heard of a falconer who gave up going on hunting and falconry trips because of having an accident, unless it was a disabling one.



378- Hunters usually tend to use sheep or goats for food, especially when they are available to be purchased from the nomad shepherds along the way. A young naturally grazing goat is considered one of the favorite meats to many people. This is in Pakistan 1986.



379- When there was not enough prey to feed all the falcons, and when the feeding time at the dusk comes, the unfed falcons would mostly drop their hoods off, and start watching every movement around them, looking here and there until eventually they get the food they were expecting. It is usually mutton, and if there were many falcons that needed to be fed, a leg or two of a sheep would be saved for this purpose. In many cases, an experienced servant or a falcon caretaker would be ordered to feed the falcons, especially if they belong to one Master. A hunting day which was not generous would often change the mood of the falconers, and some of them would lose their interest in feeding their falcons on mutton. Friendly and unfriendly challenges between the falconers who carry the falcons for the same Master are very common and, therefore, a bad hunting day is not good to display the skill and performance of their falcons. Unpleasant arguments between the falconers is not uncommon on such a day. Saudi Arabia, 1984.



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Means of communication with every member actively participating in the falconry trip, as well as the homeland, are essential and could be very useful. Obviously it is difficult sometimes even for the Bedouins themselves, who know the area very well, to get lost due to the changes that continuously occur in the shape and nature of some of the sand dunes in certain areas. This is particularly true if they have not been to the area for several years. However, many falconers still like to undertake the venture of crossing the desert of the Empty Quarter in small parties with frugal rations, just because they are interested in this most remote desert area. Many of the Bedouins consider the crossing the Empty Quarter as a real challenge to the ability of a true Bedouin. Very few Bedouins are still able to do this without losing their way. Many old stories are told by some of the old Bedouins to boast about how well they know the desert. Some of these stories are really interesting and, if they are true, probably reflect how sharp minded those Bedouins were and how good they were at understanding and experiencing their natural environment and habitat. If they are untrue it reveals how great their imagination was and how extensive their ability was to fabricate stories and myths, their ability to recount them and pass them down through the generations.. I think it is good and important to briefly mention two or three of them. The first one is obviously an inherited story which could be more than several decades old, I heard it from someone whom I trust but I have no idea about who was behind the origin of this story. It concerns someone who was very well known for his knowledge of the vast desert surrounding the area

380- A patrol car on the hill acts as a landmark for the other cars to reach the spot where the new camp of the falconers is set up. This is only in the case of a very large group of hunting cars, which is made of smaller groups.
Saudi Arabia 1984.



*381- When a hunting day ends and after the sun goes down below the horizon, there would only be the chance of having this reddish sky light which does not last for long. Soon the total darkness overlaps the whole camp and, for the small group of hunters, the only light could be seen is the moonlight, the torch light or the vehicles' lights, when some falconers move them for different reasons and purposes.
Saudi Arabia 1984.*

where he used to live. One day while he was accompanied by his son, who was a teenager, for hunting, his son was trying to learn as much as he could from his father about the desert and hunting. They went on for several miles on their camels away from where they lived. While they were wandering in the desert, they passed over a spot where they saw a houbara's nest with two eggs in it. The man showed his son the nest, who initially did not pay attention because he was only interested in looking for the houbara itself. Then they kept on wandering in the desert until the time when the Bedouin decided that they should go back to their camp and family. After they arrived home and had their dinner they sat together in the darkness of the night in front of the flames of the fire which was the only light they could have in the night, talking about the few events of their day. The Bedouin came to the point of when they saw the houbara's nest and tried to test his son's confidence about how much he was able to find his way in the desert, and how accurately he could spot certain points in the vast empty desert. Therefore, he went on and asked his son if he could remember where they found the houbara's nest. His son replied straight away that they had seen it in a spot near or close to a place which they both knew, and he gave his father the name of the place, which was obviously right. Then the Bedouin went on further and asked his son if he could lead him to the spot by going back then and there in total darkness on camel back to the same area where they saw the nest. The son was ready for the challenge, as might be expected from most of the Bedouins, although they do not mind losing a challenge. He replied, "Yes, I can take you now to that nest!". Then they jumped together on to their poor camel's back, and took the way to the houbara's nest-

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382- The keen falconer is always busy with his new falcon, or the falcon which is showing a health problem or not responding to taming and training as is expected. Saudi Arabia 1984.

ing spot. This time the son was in front, taking the lead and directing the camel. Then after a long time, they reached the area where the son told his father that the nest was, where they were standing on their camel's back. Then the Bedouin asked his son, "Where exactly is the nest?" Obviously, because it was total darkness and they were unable to see the ground, the son answered: "It is on our left side". But the Bedouin immediately replied: "NO! it is on your right side!" What is implied by this story is the incredible accuracy and sense of direction and location Bedouins look for in anyone who claims to know the desert well. It also emphasizes the difficulties of this task and, that it is not achievable by everyone. They also want to boast about the Bedouin genetic inheritance, which they very much believe in it, although it has not been tested scientifically. What I have noticed is that they almost always love to recount these kinds of stories when they are surrounded by people whom they refer to as "civilized" or "city people"! Another story which I know is true, but at the same time I cannot tell how much exaggeration there is there in it, because Bedouins almost always like to embellish their stories (which is something really interesting and deserves to be studied by experts). Although they always like simplicity in their private life in almost everything, when it comes to stories and events, they always like to make them very detailed and exciting. This story actually happened in the Empty Quarter when the paramount Qatari Sheikh was going into the desert accompanied by hundreds of his friends, companions and falconers. The desert guide of that trip was someone who was very knowledgeable and familiar with the desert, but obviously not the best one. The one who knew the desert best was staying in Doha and was not joining them for some reason. It happened that in the middle of the desert the guide was a bit confused and was unable to decide which way should be taken to get to a certain destination which the hunting party intended to reach. Then there was no way but to use the wireless communication system which was the only means at that time during the 1970s and early 1980s to call Doha and speak with the



383- Falcons are kept inside the tents during the night when it is very cold, when they are not feeling well, or due to the possibility of being attacked by stray wild animals in the night when they are hooded. This white gyrfalcon needed medical attention and was staying in my tent, which was very well illuminated, as can be seen. Tunisia 2003.

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384- (Below) the saker falcon has been released from the car and followed by the falconers. It looks as if it is not so keen, not fast flying and probably a bit hesitant to go for its prey, which seems to be a hare.

In the photo 385 (Right), the falcon is still flying but not so high which is usually an indication that it is either a hare or a houbara which has not yet flown. Saudi Arabia 1984.



Bedouin who had expert knowledge of the desert to get his help to suggest the right way to take to their destination. The information which was passed to him consisted of a detailed description of the area where the hunting party was at that time. The guide of the hunting party was the one who was transmitting the information to the other one, who was in Doha. He was describing the kind of vegetation of the area, the shape and look of the sand dunes, the colour of the sand and if there was any other noticeable landmark. Then the expert Bedouin in Doha got a clear picture of where the hunting party was in the desert and soon after was able to suggest a certain direction to the guide of the hunting party who managed to take it correctly and eventually they reached their destination. Another story about a Sheikh who was hunting in the Empty Quarter, who was feeding his falcon on the houbara which the falcon has just hunted. While he was assisting his falcon, he took his watch from his wrist so that it did not get spoiled by the blood when the falcon was plucking the feathers of the houbara and drops of blood were thrown with the feathers in every direction. He left his watch on the sand and was only concentrating on his successful falcon and not paying attention to anything else. Then after the falcon finished eating from the its kill, he took it on his fist and left the expensive watch behind. After they drove for hours and reached their camp, he re-



386- The dark saker falcon, Adham, has captured its prey, a hare and started feeding on it. It is a good chance for the photographer to shoot from a distance without disturbing the falcon.



387- The two falconers are not sure if the falcon would welcome their approach, which means that it is not so tame and could fly off if not appropriately approached. They are discussing the best way how to deal with this situation.

membered that he had left his watch behind and because the hunting party was planning to leave their camp the next morning and move forward, one of the Bedouins took the assignment of going back on his own early the next morning to the last place where the Sheikh had left his watch. He managed to get there, found the watch left on the spot and he picked it up and followed his party to the new area where they were supposedly going to camp. The wireless transmission which I talked about earlier, is always important to keep small groups of the hunting party in continuous connection as long as the wireless equipment inside the car is on, and to help those individuals who for different reasons have to go in different directions during the hunting trip, to find their way to where their group is camping or resting. This obviously is not necessary to be in, nor is restricted to the desert of the Arabian Peninsula. It is



388- Eventually, one of the falconers who is usually the person who is handling this falcon, is getting closer to the falcon and is just about to carry it on the fist. On the other hand, the falcon seems to be accepting the approach of the falconer.



more or less the same whenever an Arab Bedouin happens to be found in the desert - any desert. I have personally seen this happen in Sudan, Tunisia and Somalia. Modern navigation system equipments are extensively used by the falconers in the latest years.

Average sakers would normally find it quite difficult to catch those houbaras which are found in the northern part of the Arabian Peninsula, because they very often fly off as soon as they see a man or a falcon approaching in the distance. Peregrines normally would not have this difficulty. This is due to the difference in flying speed of sakers and peregrines. It is why, in recent years, falconers are usually disappointed if they only take sakers when hunting in the northern part of Arabia. Although sakers can pursue and catch some houbaras in the north of Arabia, they may lose many others in the pursuit. Losing one houbara during hunting when there are only few could be very disappointing to the falconers. However, one should not think that all the Arab falconers enjoy hunting trips just for the sake of killing houbaras,

The Hunting Season and the Hunting Trip

although it should not be denied that this could be the only goal in the mind of some of them, just because they like to be addressed as the hunters of many houbaras in the season. The truth is that much of their enjoyment is having free time in the open desert, no matter how arid it is, wandering around in the early morning after having a cup of tea and few small cups of Arabian coffee. Then later in the midday, they will have a rest until the sun starts going down in the west, when they will go for the second half of the day. They will be going around again looking for houbaras until the sun has completely set and there is no more light. Then they might decide to go back to the main camp (*Inna*), or, alternatively, if they are far from the main camp, they might stay where they find a suitable camping spot (*Izba*) and park their cars in a semicircle lined up against the wind. Then they will set up the fire in front of them, laying out carpets and arranging their mattresses to sit around the flames for only a few hours of the evening, sitting and talking about different topics. Their dinner will mostly consist of mutton or goat meat with rice. If they were successful during their day's hunting, then the meat of the houbara, hare or "Kurwan" Stone Curlew will also be cooked instead of mutton, if there is enough for the whole group. Normally all the falconers go to bed very early because they have to wake up before sunrise to start their new hunting day.

Despite the prosperous life which is a general phenomenon in all the Gulf states, and the effect of this prosperity which greatly influences personal life, all the local people are still very fond of spending some time in the desert. It is where most of the elderly people recall memories of those days when they really had to live in the desert. The younger generation who has never lived a real desert life, try to share with the elderly people some kind of historical life and cultural memories of the past, by spending these days hunting in the desert.



389- An Ashgar, juvenile, saker falcon, said to have been trapped in Pakistan and exported to Doha. It is shown here exhausted after successfully capturing this houbara on a hunting day in Iraq 1995. Photographed and courtesy of Rik Van Lent jr. Iraq 1995.



390- A juvenile peregrine falcon on its houbara, watching for the intruders before starting to feed on it. Photographed by courtesy of Rik Van Lent jr. Iraq 1995.

Every day in a hunting trip will more or less follow the same line of the previous days, until the end of the trip. The only difference being the new places the group will be moving to and camping in, and how lucky falconers will be in finding houbaras. If there were plenty of houbaras and enough to give the chance of hunting to all the falcons, then the falconers will stay in the same place. Also, those falcons which are very keen, good hunters, will be released more than once a day. To do this, the houbara should be taken alive from the falcon, which will be released again, or if it was already dead, it should be taken from the falcon's talons before it eats too much of it. An Arab falconer will usually cover the body of the houbara with a piece of cloth to get it away from the falcon's talons dead or alive. Alternatively, if the surrounding is a soft sandy area, he will cover it with the sand and attract the attention of the falcon to jump on the fist with a piece of meat. Usually, the falcon will soon jump to the fist when it cannot see the houbara any more, after being buried in the sand. When the falcon is released to pursue a houbara, some of the hunting cars will follow the flight of the falcon and the houbara. While the falcon pursues the houbara somebody in the car will be concentrating his eyes on the two flying birds to make sure not to lose one of them while the driver should be very careful in driving his car. The drivers who follow the pursuit will need to drive fast enough so that they do not lose the birds in the flight. Driving fast in the desert and on an unpaved road, while avoiding the sudden changes of the land on the desert way is so important for safety. There could be some sudden uneven areas, or unavoidable large stones which could cause a severe accident and could cost the life of the falconers in the car. If the houbara was a fast flyer and the falcon kept on pursuing it, it is not unusual to lose them both in flight unless the driver drives faster, which could sometimes be in excess of 100km an hour. I have had the chance to see this speed myself when we were following the flight of a houbara. We were driving at a speed of more than 80km an hour and the houbara was still in front of us flying and appearing as if it was getting further and further away until the peregrine suddenly stooped at it. Binoculars are helpful in these cases, but not very much if the land does not permit the driver to keep driving without being forced to suddenly change his direction. Electronic transmitters are also very useful in helping to find the falcon if it has failed to capture the prey or if it has been successful but its landing spot cannot be discovered by the falconers. When the falconers lose the falcon and the houbara, but know for sure that it was a successful hunt, they will be in a hurry to find the falcon and forget about the houbara, if it was already dead or still alive between the talons of the falcon. This is because they know that it could be more difficult to call the falcon to the lure or the fist if it has eaten the houbara to a full crop. Also, a falcon like this which continues to fly after the houbara at a high speed will capture the hearts of the falconers and deserve their respect. So they will be very keen to find it and will be very sad if they cannot. This way of losing a falcon is very much a cause for sadness for the falconers and it is why, when they mention a lost falcon, they will say it with pride that they lost it while pursuing a houbara and will not forget to praise the falcon's performance. On the other hand, if the falcon has been lost without pursuing a houbara, such as when it ignores the chase of the houbara and continues to fly higher and higher until disappearing, then the falconer will feel differently and either the falcon or the falconer will be blamed for this unwise release of the falcon. There are certain times when Arab falconers believe that the falcon should not normally be released to pursue prey. Midday is the time the Arab falconers do not release their falcons. They call it the "soaring time", and they believe that almost all the falcons tend to soar higher and higher during this time of the day if they are released and this is why falconers usually take a siesta. Also, if the falcon was not so hungry and has been released by the falconer once or more during the day, then the falconer is blamed again for losing his falcon. Sometimes, when the falconers spot a houbara during midday, they prefer to wait until later in the afternoon before they decide to release the falcon. Therefore they will stay in their cars watching the houbara as if they are guarding it, should it fly or if any other falconer who might be around wanted to release his falcon after it, until they decide when it is the right time to release the falcon. This could sometimes cause conflict between different groups of the falconers, who are usually falconers of a younger generation. But, generally speaking it is known that those who first saw the houbara and stood in the area guarding it, have the right and priority to release their falcons after it.



THE MOULTING SEASON

The moulting season consists of the several months spent by the falcons in shedding their flight feathers, especially the primaries and tail feathers. It starts when the hunting season for that falcon comes to its end. The end of the hunting season is related to, and affected by, different factors - some are direct and others are indirect. These factors could extend the hunting season to seven months from the beginning of October to the end of April. The factors which have a direct influence on the length of the hunting season are: the species of the falcon, the availability of prey and the laws governing hunting in certain countries. The indirect factors, could be the temperature of the environment during the hunting season and the personal circumstances of the falconer himself.

The practice of falconry with saker falcons (juveniles, captive adults or adults caught from the wild) normally starts at the beginning of October at the earliest and rarely lasts until the end of March. This is because many sakers start moulting as early as March and their owners prefer to give them a rest and tie them to their perches to prepare them for a good, complete moulting. Unlike the peregrine, the saker does not become devalued by the end of the hunting season, which is why their owners do not like to exhaust them as they will be keeping them for the following year.

In the case of the peregrine, there are always differences between the different forms of peregrines and other differences related to the age of the falcon. The newly acquired juvenile and adult wild peregrines can be used for hunting as soon as they have been trained, which means during October to November. Also, they can usually be used for hunting until late in the hunting season, because they usually start moulting later than the other falcons. The adult peregrine will rarely finish moulting before December, and therefore, it could not be used for hunting until the beginning of January. It is almost the same with the wild caught adult peregrines, because they are mostly trapped from the wild during November and December, while they still keep two or three of the primary feathers of each wing. Many peregrines might continue to hunt into May and probably the beginning of June, if the climate is not too hot and if the *Stone Curlew* and *Hare* are still available. The houbara is unlikely to be seen in many Middle Eastern hunting areas during the long hot summer season, starting by the end of March.

The different forms of saker falcons which are not highly prized, could be used by falconers for longer periods of hunting than those of higher values.

The Arabian peninsula is a poor hunting area which entirely depends on migratory birds, like the houbara and stone curlew, to provide the none too plenty prey birds for hunting. Keen falconers will not have much chance to enjoy their sport if they restrict themselves to this area. Those who can afford to travel to countries like *Iraq, Iran, Pakistan, Morocco Tunisia or Mauritania*, where there are plenty of houbara, will probably practice their sport for only two months a year and not bother to hunt elsewhere. In many countries where falconry is a legal sport and can be practiced by foreign visitors, there are re-



391- A group of saker falcons basking in the March sun before they are taken to the moulting rooms. The decision about when it is the time to take the falcons to the moulting rooms is entirely related to the falconer's general circumstances and the possibility of finding a good place which would provide plenty of migrant houbaras. Doha, Qatar 1986.

strictions often limiting the period when falconry is allowed. In *Saudi Arabia*, the legal hunting season might last for up to four months, while in *Qatar* it was allowed all year round until recently when some regulations were adopted by the government to control hunting according to seasons. In the *U.A.E.* it is said to be banned for everybody, but there is evidence that it is only banned for ordinary people and not for the upper classes. Thus it is a matter of personal circumstances, depending on the keenness, power and wealth of the individual, and how much of the year is spent practising falconry.

The beginning of March is generally considered to be the end of the falconry season and it will be the time to decide which falcon is to be kept for the next season and which is to be sold or given away. The falconer may often wish to buy some good falcons to keep for the next season. At the end of the season hundreds of falcons will be exhibited for sale. As previously mentioned, there will be a sharp drop in prices of some sixty to eighty percent by the end of the season for falcons other than juvenile peregrines. A falcon which cost US\$6,000 at the beginning of the hunting season will only be worth about US\$1,000 at the end of the season, unless it was very well known as a falcon that possesses an extraordinary keenness and flying speed. In the case of juvenile female peregrines, the larger they are, the higher their price will be. During the first month of the hunting season, prices for average size female peregrine in the last three to four years have ranged between US\$10,000 - 12,000, in those countries which prefer juvenile peregrines, like Qatar and Bahrain and the U.A.E. But at the end of the season, like in March, although they can still be used for hunting stone curlews and hares for another two to three months, their prices will never be more than US\$1,000 - 3,000, and some even much less, except for a very few peregrines which have become famous and well known as very keen hunters and very fast flying falcons.

Usually, every falconer should have a room where he can keep his falcons through the moulting season if he wants to care for them himself. Some people, known as the moulting falcon keepers, look after other people's falcons during the moulting season and are paid for this. This kind of work has its regulations and conditions. A down payment of 50% of the total fee is paid when the keeper receives the falcon, and the rest of the money is paid when the falcon is returned to its owner. If the falcon should die at any time during the moulting season, nothing will be paid to the keeper, nor will anything be refunded to the falconer. Normally, these people charge more for keeping peregrines than they charge for keeping sakers because peregrines take more time to complete moulting. Some keepers never accept peregrines at all because they do not like to take the risk with birds which are so sensitive and prone to disease. This is an outline of what was known until the mid-1990s, when the moulting falcon keepers kept no more than ten to fifteen falcons during the moulting season. In recent years some of the new generation of keepers have clearly been going for greater numbers. However, they do not look after the falcons by themselves, but actually recruit Asian labourers to do the feeding and cleaning, while supervising the overall process.

Moulting rooms differ greatly from each other. Some are built from plywood, others from cement blocks, others are made from tree trunks to form some kind of shade which could provide a cool environment. Windows are designed according to the size of the room and the idea and understanding of the falconer or keeper. Some wrongly believe that the falcon does not need direct sunlight when moulting and the moulting room should be rather hot to encourage the falcon to shed its feathers. The mistaken belief in the importance of very hot moulting rooms has greatly decreased in the last four to five years. Nowadays most well designed modern moulting rooms are equipped with air conditioners, exhaust fans

392- A group of falcons, mostly sakers, housed in this large bungalow for some time after they have finished the hunting season, and before they are transported to their moulting rooms. A large number of falcons, like this group, would probably be going into one large aviary room where they would be released, free flying. If the group is only of wild trapped falcons, usually no problems of fighting would be expected to occur between them, while if there were some captive bred falcons especially gyr/peregrines, they would have to be careful and watch their behaviour before they could release them with the group. Riyadh, Saudi Arabia 2003.



393- A wild trapped peregrine falcon, trapped on the Western coast of Saudi Arabia late in January 1986, and because of its many old broken primary feathers, which cost too much to repair, compared to its basic monetary value, its owner decided to leave it to moult and get ready for the next hunting season with its freshly grown new primary feathers. Most of the old falconers trust that haggard peregrines would definitely be good hunters, and do not need to worry too much about their performance in hunting, and that is why they do not hesitate to keep them for the next hunting season. However, it is something related to whether the falconer liked the look of the falcon or not. This haggard peregrine is certainly an attractive one, considering Arab falconers' standards. Doha, Qatar 1986.

and very wide windows. In areas where the climate is very dry in summer, the moulting rooms could be equipped with humidity air-coolers, which basically works by blowing air saturated with a fine mist of water which makes the environment inside the room less dry and comparatively cooler. This is used in the central part of Saudi Arabia.

The perches used also differ greatly. The normal wooden perch (Wakir) which is used during the hunt-

394- A group of sakers and peregrines owned by one falconer, on the Shabbas in the Eastern Region Falcon Clinic, waiting for a general check up before they are taken to be housed in the moulting room for moulting. Peregrines are usually put into the moulting rooms a month or more later than sakers, but if the owner of the falcons only goes abroad for falconry, then he would not be interested in keeping the peregrines for a few more weeks to go hunting close to home. Al-Khobar, Saudi Arabia 2004.



395- Small moulting rooms, each one accommodates one falcon, centrally air-conditioned. They were designed for the first time by H.E. Sheikh Khalid bin Ali bin Abdullah Al-Thani, who built them in his home garden, so that he could easily watch his favourite falcons during the moulting season and not leave them only looked after by the servants, who often cannot recognize a falcon which does not feel well.
Doha, Qatar 1984.



ing season is not normally used in the moulting rooms. Some perches are as simple and rough as a mountain or sea shore rock, while others are made from plaster with a smooth even surface. A few are made from a seed sack filled with desert sand, or a cement block covered with strong cloth or canvas. Some falconers, especially those who do not keep many falcons for moulting, tend to release one falcon in each of several small rooms so that they can fly around freely and this has proved to be one of the best ways of keeping the falcons for moulting. Many falconers believe that certain kinds of perches will prevent bumble foot. They also believe that other kinds encourage this affliction. I have seen no evidence to support these beliefs one way or another, except that Astroturf has proved to be superior in this case and is the best to minimize the risk of foot afflictions. Some other kinds of rough surfaces certainly encourage the formation of scabs and the development of bumble foot. The floor of the moulting room is usu-

396- A simple structure moulting room which is built on a farm land and meant provide a natural environment. It is not air-conditioned. Many falconers used to believe that air-conditioning is bad for falcons, no matter how hot the temperature was. This was very common during the late 1970s until the mid 1990s, when falconers started to realize that lowering the temperature of the environment is so important to avoid many of falconry diseases during the moulting season.
Shahanyia, Qatar 1986.



The Moulting Season

ally covered with sand, which could either be coarse sea sand which contains some small shells, or soft desert sand.

Sakers are usually taken to their moulting rooms from the middle of March, and sometimes even before that. They will stay in the moulting room until, perhaps, the end of September, and maybe even spending two or three weeks of October there too, depending on whether the last primary feathers of both wings have completed growing or not. The experienced falconer would rarely try to take his falcon out of the moulting room and carry it around until it completely finishes growing its last primaries.

During the moulting season many falconers are more concerned about the condition of the feathers than they are about the general health of their falcons. Even if they suspect illness they are loath to carry a sick falcon to the practice for treatment for fear of damaging its feathers. Severe health problems may result from this attitude.

Water must be available in front of the falcon during the moulting season. Usually a separate dish is provided for each falcon. The water dish is usually made of hard burned clay and in some cases they could use plastic dishes or bowls. Falconers prefer the hard clay dishes as they find that they keep the water cooler. Both clay and plastic water dishes could harbour and propagate algae if the water is not changed daily and the dish is not cleaned. Falcons are usually fed once a day during the moulting season, mostly in the afternoon. Some falconers prefer feeding their falcons in the very early morning to give them a longer daylight which they believe is necessary for good digestion. A very few falconers who care enough prefer the idea of feeding the falcon a small meal in the early morning and the main meal in the afternoon.



397- Sakers and peregrines housed in this uniquely designed aviary, which is used to house the falcons all year round. The falcons would not be transferred into the special moulting rooms. This is the aviary where Prince Mansour bin Abdullah bin Abdulrahman Al-Saud keeps his falcons next to his outer Majlis, so that he keeps an eye on them. These falcons are enjoying the maximum care amongst all the falcons I have ever seen. Riyadh, Saudi Arabia 2003.

A person wearing a red patterned hat and a white shirt is examining a falcon's foot. The falcon is held in the person's hands, and the person is looking down at it. The background is a plain, light-colored wall.

FALCON DISEASES

Before going into a detailed description of the diseases, I would like to remind readers of the difficulties which in many cases have prevented the formulation of a definite diagnosis. Many disease syndromes are still awaiting further study and laboratory tests. The causative agents of many falcon diseases have not yet properly isolated and diagnosed. Many common diseases do not yet respond to the treatment available. Other diseases are not consistently illustrated and understood by the veterinarians who are in direct and continuous contact with falcon diseases. Other diseases display a fairly good response to different kinds of treatment, such as the use of the different antibiotics, anti-inflammatory products and multivitamins, while the exact cause of the disease is not always known. These disease syndromes will come under the section giving details of diseases caused by unknown agents.

Foot Affliction

I have seen hundreds of falcons showing different forms of foot problems. Few cases were alike, though often similar, and they did not respond in the same way to the same treatment. Foot problems in the saker are quite different from those in the peregrine, which is less susceptible. The different subspecies and forms of saker falcon suffer almost the same and the most severe, while lanners and light weight male falcons suffer the least.

Practical experience has reinforced my faith in certain rules related to falcon foot problems. Veterinarians who are involved in treating falcon diseases might not accept these rules. However there have been many good attempts to improve the different methods of treating foot problems, which are mostly surgical. The rules which I believe are related to the nature of the foot afflictions are:

1. An adult falcon which has spent a full moulting season in captivity, will not suffer from foot problems, if its feet were completely healthy at the beginning of the second moulting season. Its perch, ground or environment are mostly irrelevant. If the problem appeared during the second moulting season, then it is more likely that it could be due to an accidental traumatic injury.

2. I have not seen the problem in any of the thousands of adult falcons which have been recently caught as adults from the wild, and have been in captivity for the first time. None of these adult falcons showed any sign that might suggest the possibility of having a foot problem, or even any sign pointing to the possibility of affliction in the near future. Should there be any sign of foot affliction, then I would assume that the falcon must have been in captivity once before it returned to the wild, or the signs were due to a traumatic injury due to trapping or transportation, or it has been standing on a very harsh irritating rough surface like very cheap nylon carpet, or very rough canvas from which grain sacks are made in

Falcon Diseases

398- *Chronic bumble foot which led to the inability to properly use the toes. The falcon is unable to stand for normal periods and is usually lying or sitting down and extending its legs.*
Doha, Qatar 1985.



Pakistan and Iran. Experienced Arab falconers are usually able to recognize other signs, which would confirm whether it has previously been in captivity or not.

3. A falcon with only slightly affected feet, i.e. small to medium sized scabs and moderate inflammation or swelling, will have a very good chance of completely recovering if it is returned to the wild. This theory and belief was verified when I released three falcons into a very large aviary with a sandy floor for the moulting season. One was a wild caught adult peregrine and the other two were juvenile sakers. The peregrine had scabs on both outer toes which extended to the soles of both feet. There was clear swellings and obvious abscess formation. One saker had a medium scab on one foot, and the other saker had a small scab on both feet. The three falcons recovered fully by the end of the moulting season, although there was still some evidence that they had had the problem, but nothing that could be considered as an active sign of bumble foot.

4. Bumble foot does not begin as a bacterial infection. The bacterial infection is a complication of the case. Bumble foot is not infectious at all, neither to the other foot nor to other falcons. Therefore, I strongly believe that using the same falconry glove does not play any role in transmitting bumble foot from one falcon to another.

5. Severely affected falcons have very little hope of a complete recovery and will be unable to use its affected foot strongly again. It is very obvious that the powerful grasp they need to exert when catching their prey is the main factor which causes the swelling to recur in these partially recovering feet. Although many of the affected falcons which have been surgically treated successfully managed to perform effectively for several months, it is difficult to avoid the chances of a recurrence of the inflammation and swelling of the feet.

6. Foot problems are not characteristically found in wild falcons. Captive falcons develop them because they cannot tolerate the effect of standing on their perches interminably, particularly during the long moulting season. The kind of perch is a contributing factor in some cases. Hence, the use of Astroturf has played a remarkable role in greatly reducing the incidence of bumble foot in captive falcons.

7. Poor blood supply of the epidermis of the soles of the feet is generally behind the occurrence of the small dark scabs in the centre of the sole, especially after long-term standing on improper surfaces. This small scab will usually increase in size by spreading semi-uniformly. It will go deep into the underlying tissue layers to reach the muscular layer and the soft tissue underlying it. At this stage the falcon's foot will be susceptible to swelling which is caused by the invasion of different kinds of bacteria through delicate, weak points of the sole between the boundaries of the scab and the surrounding healthy skin. Bacterial infection could be caused by contamination with mutes, contaminated gloves and blocks or contaminated water during the moulting season when the falcon tends to stand in its water dish. This is borne out by the fact which falconers explain, that the falcon's feet swell up after standing in the water dish during the moulting season. This kind of swelling could subside in many cases if the falcon is kept away from dipping its feet in the water for a long period.

8. Some juveniles and wild caught adults start showing the formation of small scabs on the soles of their feet during the first few weeks of captivity. Some even succumb while they are still being carried on the fist during the taming and training stages. These falcons are very susceptible to different kinds of foot problems, and if they are not treated at this stage, most of them will deteriorate and develop very serious foot infections which may either appear a few days later, or might not show up until the next moulting season. On many occasions, some falconers brought in adult falcons to me with foot problems during their second or third moulting seasons in captivity, while claiming that the feet of their falcons were unaffected during or after their first moulting season. The falconers always tend to overlook or underestimate the seriousness of their falcons' conditions and this is an aspect of this tendency, while, at the same time, they always try to exaggerate and express their worry about the health of other people's falcons. I have never agreed with falconers' descriptions when they try to describe the condition of their falcons' feet. Indeed, if we look back in detail into the falcon's first moulting season, it is usually remembered that some small scabs were present, which were considered insignificant at that time. On the contrary, such small scabs are insidious, unstable, initially undetectable, and as dangerous to the falcon as a time bomb which might explode at any time when conditions are ripe.

9. It is very rare to find a falcon which has only one affected foot. One might be more affected than the other, but if one foot is affected, the other will rarely be completely healthy. If a falcon only has one affected foot, it would more likely be an infection due to a traumatic injury, which is not very common, and not responsible for bumble foot as used to be believed.

10. Some falcons have a tendency to develop a brownish-black wide spot which might cover most of the sole of the foot, soon after they have stood for a considerable period on a harsh, rough surface which has not allowed the soles of the feet to be aerated. It could also occur after any partial cut in the blood supply, such as might happen because of twisted or tight, improper jesses. In some other related cases, there might be no sign of this brownish colouration, but only the foot will be swollen and the sole will tend to get hard and solid to the touch. This condition can also occur without warning, in both the juveniles as well as newly trapped adult falcons. It occurs in sakers more than in peregrines, especially those sakers which have rough soles. This kind of affliction can also develop soon after the falcon suffers from any kind of problem in one of its legs, such as a fracture, tendonitis or dislocation in the joint which causes the falcon to stand and support itself on the other healthy leg.

11. Those foot problems which have hyperemia or a pinkish area surrounding the scab, are expected to be more responsive to treatment, including surgical treatment. The scabs which are located on the lower surfaces of the toes, mainly the outer ones at the point of the phalangeal joints, do not have much effect on the performance of the falcon's feet, although sometimes swelling might be very severe.

The Effect of Foot Problems on Falcons:

The effect of foot problems varies from one falcon to another. It is not related to the clinical signs of the affliction on the foot itself, nor to the severity of the infection if there was an infection. Sometimes a falcon might only have a clinically slightly affected foot, but it seems to be so painful to the extent that the falcon tends to raise the affected foot, and if we try to raise the other foot, the falcon will struggle and try to avoid standing on the affected foot. It might also be unable to use its foot properly, and it could be very painful when it is touched by the hand. In other cases, although the effect might be clinically very severe, the falcon is still capable of using its feet quite well, although not up to hunting standards.

Peregrines seem to tolerate foot problems better than sakers. This is unlikely to be related to their body weight, because even light weight sakers, such as the Ni'airy, Gurmoosha and Wakri Al-Harar,

which have almost the same weight or are even lighter than the peregrines, frequently display more severe cases of foot problems. The effect of foot problems on certain falcons seems to be entirely dependent on how severely the nerves, tendons and soft tissues were affected.

Treatment of Foot Problems:

One of the following procedures can be used to treat foot problems, or a combination of more than one can be used.

Different treatment and methods could be tried to treat the cases of different severities of bumble foot like intramuscular or local injections of a mixture of a broad spectrum antibiotics and corticosteroids. The site which is suggested where the local injection should be given, is through the lateral area between the hind and outer toes. The antibiotics and corticosteroids could be given in two separate injections if they have to be given intramuscularly, or they can be mixed in one injection if they are to be given locally, in order not to cause unnecessary damage to the injected area. The local injections are to be given with extreme caution, because there is a high possibility that the nerves and blood vessels could be damaged by the needle. However, when successful, they are remarkably fast in their effect on the swellings. The response would not take more than few hours and might reduce the pain and swelling by up to 80%. One injection every twenty four hours for three to five days is needed for mild cases. In cases of moderate swelling this course is sufficient to make the abscess accumulate as caseated material between the toes where minor surgery can be performed later on to evacuate it. The incision of the upper surface of the foot can be sutured, or just bandaged. The upper surface of the foot where the incision is made heals very well within four to five days. If the scab does not affect the soft tissue of the foot and, is not deeply penetrating, then the prognosis is more than 70% curable. In cases with small, penetrating scabs, local injections are valuable in accumulating the abscess and reducing the general inflammation of the foot. They also force the scab to detach from the healthy surrounding tissue due to the counter pressure the injection fluid exerts on it. After the release of the scab, surgery becomes necessary to clean and disinfect the underlying tissue and close the perforation, which has resulted from the dislodged scab. The locally injected dose of the antibiotic and corticosteroid could be calculated as for the intramuscular injection and divided as a mixture into two syringes to be injected into both feet if they both have to be treated. If the swelling is too severe and painful, then the corticosteroid could be injected systemically and the antibiotic could be injected locally.

Surgery:

Basically, the surgical technique for bumble foot is a simple one, but the falcon needs excellent post-operative care, especially when the surgery is performed on both feet. Two common problems may result after surgery: the incomplete healing of the operation wound and recurrence of the swelling.



(a) Improper healing of the wound is

399- A case of bumble foot in a saker falcon. Both feet are showing more or less the same severity of affliction. There are no signs of much abscess formation and the scabs are small in size. Both feet are examined and checked before surgery. Doha, Qatar 1985.

400- The scab has been removed to expose the affected underlying tissue to be cleaned by removing the abscess and the necrotic tissue. Doha, Qatar1985.



certainly due to the continuous movement of the foot, especially because of the powerful way the falcon grasps with its feet, and is also due to the pressure the weight of the falcon exerts on the wound. The wound is related to the size of the scab and, if it was very large, the chances of proper healing decreases. It is also affected by the degree of disinfection of the infected underlying tissue, like when the pockets of abscess are not given adequate attention and not treated properly.

(b) The recurrence of the swelling can occur a few days after the operation in severe cases, and it can even recur a year after the surgery, after the falcon has finished a full hunting season. It can also recur if the antibiotic used during and after the surgery was not fully effective.

Post-operative care needs extraordinary consideration and attention, or the problem will be more likely to recur, especially with new cases, even several months after the apparent cure. Recurrence could be due to the susceptibility of the feet due to improper management after complete healing.

Different kinds of ointment can play an important role in the gradual release of the scab in the primitive stages, especially when the scab does not penetrate through the skin. The ointment could include a mixture of petroleum jelly, zinc oxide, salicylic acid and any other kind of soothing oil.

Diseases of the Respiratory System :

Respiratory diseases are the most common and severe cases which are frequently seen in a falcon clinic. They affect and threaten the lives of captive falcons of different species and ages. Respiratory diseases are numerous and each disease takes a different form and course, according to its cause and severity. In many cases, it could be very difficult to make a final diagnosis depending on the clinical symptoms and, without the aid of the specialized laboratory tests, like the isolation of the causative agents, which would, in many cases, include virology. The history of many of the respiratory cases is often unknown, especially, because many of these diseases and conditions take place during the moulting season, when the falconer knows little about the falcons' daily activities and behaviour, which obviously makes it more difficult to make a proper preliminary diagnosis.

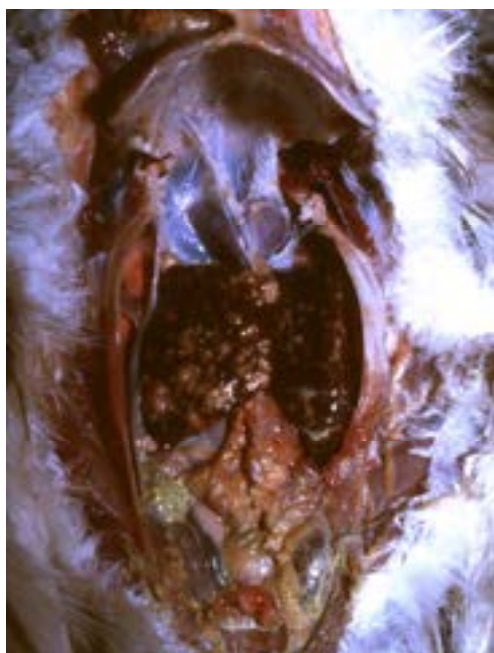
Some very common respiratory diseases, would at least affect the fitness and performance of captive falcons and may well prove fatal. These diseases usually affect juveniles during their first moulting season, particularly during the last two months when the temperature and humidity of the environment increase. This does not mean that, adult falcons will not be affected by the different respiratory diseases, nor that falcons are not prone to respiratory infections during the moderate and cold months of the year.

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401- Hydropericardium and solid inflammatory material in the air-sacs are showing an acute case of complicated air-sacculitis in a saker falcon. Doha, Qatar 1983.

402- Enlargement of the liver and focal necrosis covering almost all the two lobes. Unfortunately, this is another interesting case which could not be investigated any further to identify the causative agent due to the lack of the required laboratory services locally.



Adult falcons are considerably less susceptible to respiratory diseases. They seem to have a better ability to fight mild infections and to respond to the available treatment and be cured. Many cases of respiratory diseases which have affected two to five years old falcons, have been successfully treated, although some of them would not return to their normal fitness and flying performance. The clinical symptoms which appeared in these successfully treated cases, were mostly a mixture or complications of other diseases, like enteritis, inflammation of the crop or others.

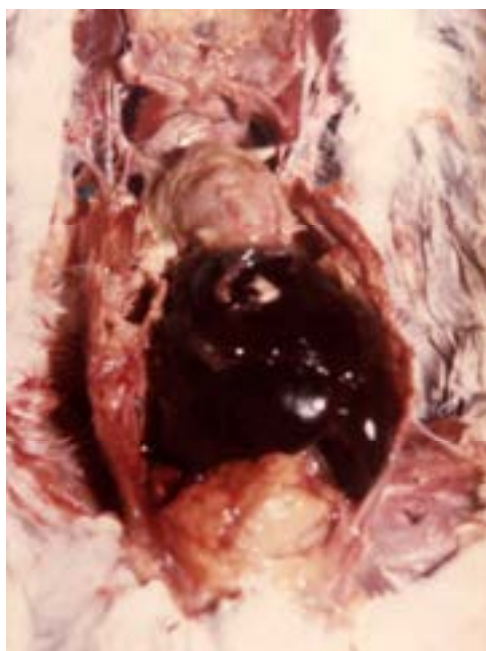
The clinical signs of any of the respiratory diseases, like pneumonia, bronchitis and air-sacculitis, which affect juvenile falcons, are more obvious and have a well-defined effect on them. There will be an increase in respiratory rate, clear signs of dyspnea, regurgitation of food and progressive loss of weight and conditions. All species of falcons (sakers, peregrines and others) which are used for falconry are susceptible to these respiratory infections, but it is hard to prove whether any one is more susceptible than the others. Post-mortems usually help in the majority of cases to clear up most of the confusion and illusions which might cloud the diagnosis. It is certainly important to confirm exactly which disease the falcon was suffering from. However, diagnosis is more difficult when the falcon recovers as the drugs used are mainly broad-spectrum antibiotics and we are left in doubt as to exactly which micro-organism the falcon was suffering from. Endoscopy plays a very valuable role in the diagnosis of respiratory diseases, by investigating the conditions of the lungs, air-sacs and liver.

The juvenile peregrine is very susceptible to these respiratory infections and, in severe cases, the clinical symptoms are unmistakable. The course of the disease might be as short as two to five days, and very rarely lasts longer than seven or eight days. The clinical signs appear very quickly and the general condition worsens very rapidly if the falcon has been neglected and no treatment given as soon as the symptoms first appeared. However, if the right available treatment is promptly initiated, the peregrine will probably respond very well, as soon as a few hours after the treatment has commenced. This does not apply to fungal infections of the lungs and air-sacs like Aspergillosis. Post-mortems on peregrines which died because of any kind of respiratory infection do not usually reveal serious and clear pathological lesions on the lungs or air-sacs, as is the case with the saker, Wakri Al-Harar and probably the Ianner falcons. Furthermore, infections with *Aspergilla* in the peregrine are usually enough to cause death before the characteristic mouldy lesions on the respiratory organs



403- Cardiac enlargement with fibrinous pericarditis in a saker falcon are indications of a chronic infection. Doha, Qatar 1984.

404- Severe enlargement of the liver, the solid inflammatory material in the air-sacs and the fibrinous pericarditis are indications of a chronic hepatitis and a complicated case of airsacculitis in a saker. Doha, Qatar 1984.



have appeared. These cases can only be diagnosed by the isolation of the micro-organisms and the histo-pathological examination of the respiratory organs and the liver. In sakers, infection with *Aspergilla* is often very obvious and the lesions can be seen by the naked eye. Fibrosis of the air-sacs occurs with the characteristic caseated material filling the air sacs, and in severe cases, hydro-pericardium and fibrosis of the pericardial membrane, as shown in (Fig 401-404).

Most cases of respiratory infection, which affect saker falcons, take longer periods before they display their clinical signs on the falcon. At this time the saker, Wakri Al-Harar and lanners are usually struggling to fight infection. Some signs might be present in this period, such as partial loss of appetite, regurgitation of food from time to time, and slow digestion of food, different changes in the shape and colour of the mutes, and signs of laziness and sleepiness which is evident when the falcon tends to close one eye, or both eyes from time to time more frequently. Reduction in appetite is a definite sign of illness in falcons, although some falconers try to dismiss it initially. It is certainly serious if such an early sign is ignored, simply because it could be too late to treat the falcon later on when the disease reaches an advanced stage and when the air sacs are inflamed and reach the stage of fibrosis and the inflammatory secretion undergoes caseation and increases in size until it occupies most of the space of the air sac. The pericardial fluid increases in volume and its pressure against the cardiac muscles increases, causing reduction in the fitness of the falcon and then signs of fatigue and exhaustion are noticed when it flaps off its perch or the falconer's fist. This loss of fitness could be so severe as to prevent the falcon from being able to return to its normal position and posture. Restraint of the falcon by hand at this stage could be very critical and could cost the falcon its life, as it could very easily succumb to stress because of its impaired breathing.

The saker is known by experienced falconers as a strong falcon that can bear stress better compared with other species of falcon. There is certainly no scientific explanation to verify this belief, but it is clear that sakers have more resistance to high and low temperatures. They are able to bear starvation for long periods, which could extend to a week or more when it is not sick, and it has more ability to tolerate stress. It is therefore relatively difficult in many cases to determine and recognize the signs of different diseases in the saker. Most falconers tend to rely on their own explanation when they see abnormal signs on their falcons, which would mostly rule out the possibility of diseases. This is also because the saker retains its pride, alertness and aggressive appearance until the



405- Green mould growth suggestive of *Aspergillus* infection dominating the inside of the left thoracic and abdominal air-sacs in a saker falcon. Doha, Qatar 1983.

406- Solid caseated material in the right abdominal air-sac of a saker falcon. Doha, Qatar 1985.



effects of the disease become so severe that it can no longer bear or hide it. At this time the falconer will be shocked by the sudden onset of symptoms and will think that this is due to feeding it low grade, contaminated meat or diseased pigeon. The effects of respiratory diseases on the Wakri Al-Harar and lanners are almost the same compared to the saker and they all seem to have a higher tolerance than the peregrine.

For a long time, falconers have recognized the symptoms and seriousness of respiratory diseases and were worried of them. The name “Ridad”, which is locally used by Gulf falconers, refers to the frequent deep movement of the abdominal wall. This means that they only recognize the disease when it reaches an advanced stage. Respiratory diseases greatly worry them and, even though they might falsely claim they can treat falcon diseases, none of them would ever dare to claim that he or any other falconer can treat a falcon suffering from “Ridad” which could be any respiratory disease. Falconers divide respiratory diseases into two kinds: Abdominal Ridad and Head Ridad.

“Abdominal Ridad”:

This means that the diseased falcon shows clear signs of respiratory distress and increased respiratory rate. This is an alarm signal and some experienced falconers would soon isolate the sick falcon and not let it near other healthy falcons. In many cases, the falconer would be ready to give it to anyone who asked for it, or, if not, release it. Falconers understand that increased respiratory rate is accompanied by loss of appetite, progressive emaciation and general loss of fitness and the falcon becomes exhausted very quickly and unable to fly as usual if it was still able to maintain some of its flying ability. Also they can recognize the characteristic greenish watery mutes associated with most of the different kinds of respiratory infections.

“Head Ridad”:

This is sinusitis, which is not very well understood by falconers who disagree on its description and its effect on health and fitness. They usually describe it as a swelling of the eyelids in front of the eyes when the falcon breathes, which generally increases when it flaps and its breathing rate and depth increase. Many falconers would attribute this to the possibility of blocked nares, which might be true in a few mild cases. This can sometimes affect the fitness of the falcon and its owner may turn to the old remedy, which is the use of a red-hot pin to pierce the nares. This fire-piercing technique is very painful and its result could lead to

407- Solid caseated nodules with mould growth suggestive of *Aspergillus* infection, which is distributed in the left side of the body cavity of a peregrine falcon. Doha, Qatar 1983.



a complete cure, partial recovery or death.

More than 70% of the cases of respiratory infection in sakers, and somewhat less than that in peregrines, exhibit a change in the colour of the mutes. The whitish urine will turn into a characteristic greenish colour, and the solid part of the mute will mostly disappear, except for a small piece of semi-solid greenish-brown matter. The green colour of the mutes is really characteristic, and experienced falconers recognize it and become extremely concerned because of it. Falconers realize that this change in the colour of the mutes can precede the cardinal signs of respiratory infection. When the colour of the mutes returns to normal, it can also be taken as an encouraging sign of improvement and recovery, although not a guaranteed improvement.

There are four characteristic features of respiratory diseases. These are: loss of appetite, regurgitation of food, increased obvious abdominal respiration and, in some cases, purulent nasal discharges.

Loss of Appetite: Some infected falcons do not sharply lose their appetite but continue to feed reasonably. Falconers logically attribute this to an increase in temperature and humidity of the falcon's environment. Some falcons lose their appetite completely and might even lose interest in food when it is offered to them to such an extent that they do not even look at it or turn their heads away. Between these two extremes there are various degrees of appetite loss. Some falcons, when offered food, might grasp it in the characteristic way, but never feed on it. If the offered food was a live pigeon, it might display interest and chase, grasp and kill it and pluck some of its neck feathers and even hold it for a few minutes, but it will not feed. Some of these infected falcons will not allow the food to be taken away from their talons and struggle strenuously and even pretend to eat it, but very quickly stop and then leave the food altogether and jump back on the perch. This is a very clear indication of the pride and courage of the saker, which is the only falcon which could behave in this way, although, similarly, in some cases, the peregrine will



408- A saker falcon died due to a chronic respiratory infection and signs of hepatitis. The post mortem revealed this severe enlargement and focal necrosis all over the liver. A caseated mass occupied most of the right thoracic air-sac which indicates the possibilities of different causative agents, including viral infection. Doha, Qatar 1986.

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hold the food firmly and if somebody tries to remove it, it will start screaming.

Vomiting: A very high percentage of falcons with respiratory infections vomit their food, either all or part of it, whether they have eaten freely or been force fed. It could take from a few minutes to several hours before the food in the crop is regurgitated. Falcons which keep the food in their crops up to ten hours may digest some of it during this period and then vomit the rest. Such falcons rarely vomit their food less than half an hour after eating. Some which have been force fed cannot even keep the smallest piece of meat down in the crop for more than a few minutes, so they vomit all they have been fed. Although vomiting is difficult and exhausting some falcons do not seem to get tired, while others will need a rest before they resume vomiting. Hooding the sick falcon sometimes seems to help prevent or reduce the desire to vomit. But it should not be forgotten that forcing a diseased falcon to retain food in its crop can lead to serious consequences. The food may putrefy, which can be fatal, particularly to peregrines.

Nasal Discharge: Nasal discharge is very common in falcons, especially during cold seasons, when it is not necessarily an indication of severe respiratory infection. However, if nasal discharge is discovered during the moulting season, it is already too late if the two nares are blocked. In most cases the cardinal signs of “Ridad” appear about three to ten days after the appearance of the purulent nasal discharge. However, in many severe cases of infection with *Aspergilla*, no nasal discharge or blocked nares can be detected.

Increased Respiratory Rate: The respiratory rate is a good and important indicator of respiratory infection in falcons. Increased respiratory movement of the abdominal wall is very well known to falconers and means “Ridad” to them more than anything else, especially if the falcon is standing in a completely relaxed condition on its perch and not flapping. The increase in the rate of abdominal respiration differs in significance from the increase in rate of the upper part of the breast, which occurs only when the falcon flaps.

Treatment:

Falconers do not believe it is possible to treat a falcon which is suffering from “Ridad” and, in a way, this is true as they do not recognize the fact that the falcon may be suffering from a respiratory disease



*409- An acute case of sinusitis in a
an adult saker falcon, showing the
swelling of the right eye, and the
purulent secretion from one or both
nares which dries and blocks the
nares. Also the tongue in this case
is swollen which indicates involve-
ment of oral infection, therefore the
treatment in such a case would
have to include the mouth infection.
Many of the cases like this would
be caused by a complication of the
oral infection.*

*410- The same falcon two days
after the treatment was initiated.
Doha, Qatar 1983.*



until it is too late. Treatment during the early stages of respiratory disease is not difficult, although I could not perform laboratory tests or investigations to aid diagnosis, due to the absence of specialized laboratory facilities. The use of any of the broad-spectrum antibiotics can usually, in many cases, solve the problem. The micro-organisms which were commonly isolated in many cases of respiratory infections (from dead falcons) were *E. coli*, *Proteus mirabilis*, *Pseudomonas aeruginosa*, *Klebsiella pneumoniae* and *Aspergillus fumigatus*. Most of these were resistant to a very wide range of broad-spectrum antibiotics. Many falcons displaying the early symptoms of respiratory infection like, frequent vomiting, complete or partial loss of appetite, obvious loss of general condition and purulent nasal discharge, usually respond very well to treatment, but many of them still exhibit an increase in respiratory rate and depth afterwards when they have regained their normal appetite and condition, therefore, such falcons could never be really considered to have been cured because they will never be fit for falconry again.

Cold and Sinusitis:

Cold is very common in falcons, particularly during cold weather or exposure to a cold draught. It can occur during the summer, but these are fewer cases, and are mostly due to irritation caused by inhalation of dusty sand in the moulting rooms, which are not well ventilated. I have seen more cases of cold and blocked nares in sakers than in peregrines. In most cases the nasal discharge was from one of the two nares. Sinusitis usually has a sudden onset in falcons, especially in sakers. It is the sudden swelling of one side of the head which is very clear in front of the eye on the same side. Usually the other side of the head is normal and not affected at all. The affected eye might be wet due to tears excreted from it.

Effective treatment can be achieved by using different antibiotics and anti-inflammatory injections daily. The response to the treatment is very quick. About 60% of the swelling disappears only a few hours after the treatment has commenced. The rest of the swelling will disappear after the second or third injection. The course of treatment might last from five to seven days. In a few cases, treated only for two to three days, the swelling might recur soon after the treatment has been discontinued, but will respond to treatment as well as the newly treated ones. It is not my policy to give a course of treatment for only two to three days, but many falconers are not keen to proceed for the full course of treatment when they see the apparent full recovery of their falcons. In a very few cases, there will be a small swelling on top of the eye, just at the eye bridge. This swelling is rather solid and subcutaneous, and will later become very solid and unresponsive to treatment, when minor surgery will be necessary to treat it, which



411- An adult saker falcon affected by an acute case of cold and sinusitis, which clearly appears like a cause of discomfort or severe headache.

412- The same falcon forty-eight hours after the treatment was initiated. Doha, Qatar 1983.



is carried out by an incision through the skin to remove the solid caseated material. The incision should be left open to be cleaned and irrigated daily. It will heal within eight to ten days. In other recovered cases of sinusitis, a swelling anterior to the hard palate, just behind the cavity of the inner surface of the beak can be left. Surgery, by opening the hard palate, is the best way of treating such cases. Local injections of a mixture of antibiotics and anti-inflammatory drugs through the hard palate or into the sinuses are also valuable in treating these cases, and dislodging the solid caseated material from the healthy inner nasal tissue. The effect of this kind of swelling in the hard palate is not serious for the falcon, but, in some cases, might cause difficulty or impairment in food intake because small pieces of meat can lodge between the swelling and the cavity of the inner surface of the beak. Snoring and difficulty in respiration might be noticed in serious cases. The prognosis of cases of cold and sinusitis can be more than eighty percent curable if the right treatment has been adopted. These kinds of Sinusitis could be diagnostically confused with some cases of Stomatitis.

Asthma or High Respiratory Rate and Distress:

This usually occurs either during or at the end of the moulting season when the falcon is taken out of the moulting room. In severe cases the falcon might be unable to follow its prey for even fifty meters, while in mild cases the falcon can maintain a reasonable performance in a ground fight with the houbara. For example, it could catch the houbara on the ground, but not in flight. The clinical signs which appear on most of the affected falcons are the shallow and high respiratory rate even when the falcon is resting, which could be unnoticeable to the inexperienced vet as well as the inexperienced falconer. However, these signs become very clear soon when the falcon starts flapping. This asthma syndrome is usually due to excessive inhalation of sand and dust in the moulting room, which is to be expected as a common se-



quela to seven months of the moulting season living on the soft sand floor. Treatment has been attempted with different kinds of antibiotics, corticosteroids and multivitamins but very few responded. Some improved when they were housed in well-ventilated sand-free rooms.

Diseases of the Digestive System:

These are mainly Stomatitis, Pharyngitis, Esophagitis and Inflammation and Granuloma of the crop. They occur in different forms and with different degrees of severity, and the lesions could be diffused all over the area or localized in different spots. In most of these different cases, the infections consist of necrotic tissues, fibrous tissues or caseated material which starts lining different

413- The miserable look of a juvenile saker falcon, which has been affected by severe oral infection and was neglected for some time until it reached this stage of inability to feed. It cannot open its mouth and eyes normally. Doha, Qatar 1985.

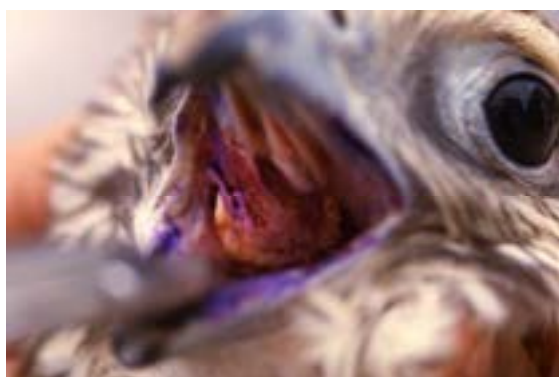


414- Necrotic tissue lodging in the palate fissure, which might not be discovered by the falconer until it starts to make the falcon snore when breathing, Doha, Qatar 1984.

415- Necrotic tissue on the right side of the throat, which is extending to the base of the tongue, and, if not treated, would eventually push the tongue to the other side until the tip of the tongue protruded through the mouth and the falcon's mouth would remain open. Doha, Qatar 1984.



416- (Below) A severe oral infection of the right upper part of the mouth of this juvenile saker falcon. An infection like this could rarely be cured without severe damage of the mouth. Doha, Qatar 1984.



parts of the oral cavity in the cases of stomatitis. Lesions of the esophagus and crop could not be discovered before the terminal stages and the appearance of the clinical signs. The necrotic tissues and debris of the oral cavity could be easily removed and they give the impression and clinical signs of the infection of Trichomoniasis, and the characteristic smell of the necrotic tissues from the mouth, which greatly resembles the smell of Trichomoniasis infection in pigeons.

The cases of stomatitis form a very high percentage of the diseases affecting falcons. They occur throughout the year, although there is a higher incidence of these cases during the moulting season. This might be due to the relative neglect which appears to be common amongst most falconers during the moulting season, and is also due to improper care. Sakers appear to be more prone to stomatitis than peregrines and are affected more severely. It is also more common in immature falcons, although many adult falcons encounter it during their first few weeks in captivity, or later during the moulting season. One of the most important points which should be stressed is that the falcons which have been infected with any of the different forms of stomatitis, or even an infection of the esophagus or the crop, seem to acquire a cross immunity which protects them against similar infections for a few months. In fact, it is unusual for a falcon, which has been previously treated against any of the aforementioned infections, to encounter any form of these infections later on. The chance of a recurrence of the infection within a short period is entirely related to whether the treatment was fully completed and a full recovery was accomplished or not, because it is very common for falconers to terminate the treatment of their infected falcons once they see good signs of recovery. However, the evidence for life-long immunity to these infections is not conclusive.

Most oral infections which I have examined were very severe, complicated and lasted a long time. This is due to the owners' negligence and their unwillingness to watch their falcons' feeding behaviour and feed condition closely. This usually happens during summer when most falconers leave the duty of feeding and care of the falcons to the servants who often do not know how to care for falcons, or have any interest in the matter. This negligence allows the case to become complicated and deteriorate until the falconer finds that the falcon has nearly, or completely, lost its appetite. In moderate cases, the falcon starts showing signs of flicking its food. This symptom could occur in the early

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*417- Necrosis of the right side of the tongue due to an oral infection. In cases like this, if they were not discovered and properly treated, the necrosis would extend transversely and could cut off the tongue.
Doha, Qatar 1984.*

stages of oral and esophageal inflammation, when the falcon feels the pain of the inflammation for the first time.

In the most severe cases of stomatitis, the falcon usually loses its ability to use its jaws properly and might lose its appetite and interest in food completely. Sometimes it might grasp the meat without trying to eat it. When the falcon becomes so ill, it will usually be open-mouthed and its breath will be foul because of necrosis of the mouth tissue. If the infection of the mouth is severe and localized on one side of the mouth, it will usually cause a swelling on that side of the head and the eyelids will be swollen and closed with nasal discharge from the same side. Some falcons continue to eat in spite of the severity of their infection, although not quite as well as healthy falcons. This shows their ability to ignore pain and struggle with infection. When examining the lesions in the early stages of oral infections, we find them taking one of the two following forms, or a combination of both:

*418- Oesophageal infection, Granuloma of the oesophagus in an adult saker. This kind of growth is the easiest to diagnose and the most difficult to treat. It needs the highest possible management by gently force feeding the falcon until the granuloma reaches maturity and is dislodged from the underlying tissue
Doha, Qatar 1985.*



1- The presence of yellowish-white exudates which could easily be swabbed and removed. These exudates differ in thickness and consistency and cover different parts of the oral cavity. Sometimes they cover almost all the oral cavity and extend to the pharynx and parts of the esophagus, where they form longitudinal streaks along the esophagus. In some cases we find white caseated exudates lodging in the fissure of the hard palate, blocking the air-passage and possibly extending further, deep in the nasal sinuses. This kind of exudate can cause great discomfort and annoyance to the falcon and, might be responsible for the reduction in its appetite.

2-The presence of one or more spots of white necrotic tissue, which range in size from a pin head to an inch in diameter. This necrotic tissue cannot easily be removed without causing bleeding and discomfort, which might be severe. This form of infection is not restricted to a certain spot in the oral cavity, but it occurs mostly on one side and extends, in the most severe cases, to the base of the tongue and anterior part of the pharynx. This form of infection includes the granulomatous lesions of the esophagus, especially its proximal part near the pharynx, as well as granulomatous lesions of the crop.

419- *Granuloma of the oesophagus in its late stage could pierce the oesophageal tissue and the skin, leading it to appear through the neck. It might not be discovered when it is covered by the feathers. In many cases the falconer would not be aware of his falcon's condition until he notices water or small pieces of meat leaking from the neck or smells the very offensive smell of the necrotic tissue. Doha, Qatar1985.*



These infections could attack any falcon which has not been infected before. There is no connection with what the falcon eats. Out of more than a thousand cases of this kind of infection, which I have examined, the falcons were fed on a variety of food. Some were fed mainly on mutton, pigeon, quail, chicken, wild birds, eggs and a very high percentage of them were fed on a mixture of these. The examinations of the direct smears or swabs from the mouth, as well as the histopathological examinations of the caseated materials and the granulomatous lesions, did not always prove the presence of certain protozoa or worms. Therefore the exact diagnosis of the causative agent is uncertain at present, in spite of the very high possibility that *Trichomonas* acts as a real or initiative cause of these cases. The presence of *Trichomonas* in a number of the mild and moderate infections could be proof that *Trichomonas* does play a role. Some of these infected falcons were not taking pigeons as a main feed and, because *Trichomonas* has been detected microscopically in the lesions of their mouth, this probably means that those falcons could be carrying the protozoa, although they were clinically healthy and for sometime did not show the clinical signs of the infection.

Infections of the mouth and anterior part of the digestive system, could be subdivided according to the clinical signs into three kinds: oral, esophageal and crop.

Oral Infections:

These could be mild, moderate or severe. In mild cases no clinical signs appear on the falcon, except when we open the mouth and see localized pin-point lesions, or paleness of the mucosa of the mouth, which takes a very deep stain when swabbed with crystal violet solution. In moderate cases the lesions are more extensive, but not to the extent of showing clear clinical signs. In severe cases, the falcon is usually open-mouthed to a variable extent, which depends on the severity and location of the lesion. When it is located under the tongue, the mouth would be open, and the area of the throat will be swollen, which makes it difficult and uncomfortable for the falcon to be hooded. If the lesion is localized on either side of the mouth (mostly the right side) as if it is about to extend to the esophagus through the pharynx, the tongue will be pushed to the other side of the mouth and appears between the upper and lower mandible. In this case, the falcon will be completely off its food and its mouth will be partly open. In such cases the putrefied smell of the mouth is unmistakable. In the most severe cases when the lesion is localized on one side of the oral cavity and rather deep in the upper part of the pharynx, the affected side of the head will be swollen and the front of the eye will also be swollen, the eyelids will be closed and mostly there would be copious nasal discharge.

Oesophageal Infections:

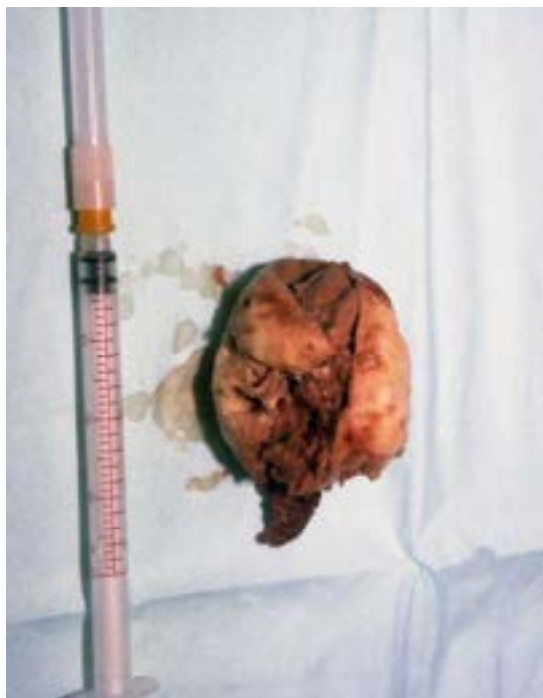
These are the most serious and hazardous to the health and life of the falcon. This is because the lesion obstructs the esophagus lumen to such an extent that it prevents food, especially large pieces, from passing down to the crop. It also forms a continuous pressure on the trachea, which may cause dyspnea or difficulty in respiration, especially if the granulomatous lesion was large. The food usually accumulates above the granulomatous lesion, and stays in the pharynx because the falcon is obviously losing its usual, normal ability to regurgitate and throw it out, and this will be accompanied by an increased frothy secretion of the mouth which would mostly be inhaled by the falcon causing death due to suffocation. The falcon would generally be in a miserable condition. Oesophageal granuloma is therefore one of the most difficult cases to treat and it requires a great deal of patience and accuracy in both treatment and nursing, which includes hand feeding small pieces of meat. The clinical signs of this infection is the clear swelling of the area under the right mandible, extending down along the right proximal part of the neck, depending on the size and extension of the granulomatous lesion. This swelling leads the falcon to bend its neck and the head is usually deviated towards the opposite side of the swelling. The lesion could easily be palpated by the fingers as a very solid mass.

Crop Infections:

These usually appear as granulomatous fibrous tissue which appears to start as a thickening in the wall of the crop, and proceeds to form a granulomatous fibrous tissue lesion which could be palpated by the fingers as a very solid mass. The size of this mass ranges from that of a pea to a large walnut. I have been unable to discover how long it takes this mass to grow into its maximum size, or even when it starts to change from a thickening in the wall of the crop to a small granulomatous lesion. When the thickening in the wall of the crop occurs, the falcon will exhibit the cardinal sign of this infection which is the digestive movement of the crop while the crop is empty. In other words, the unfed falcon appears to behave as if it is trying hard to digest the food in its crop, by extending its neck and pulling the wall of its crop backwards, moving its head and neck from side to side. This movement may happen every ten to fifteen minutes. At this stage the falcon usually eats well but does not cast pellets normally. This is why it is difficult to determine the onset of such cases during the moulting season when the falcons are not attended by their owners. Later, when the lesion is formed and has started to increase in size, the falcon's appetite will decrease until it fails to eat altogether. There always seems to be exceptional cases



*420- A saker falcon died due to a very large granuloma of the oesophagus, which was completely blocking the passage of food. This is one of the many neglected cases which usually occur during the moulting season when the people who look after the falcons cannot correctly interpret the falcon's behaviour when it is having such a problem, because in most cases the falcon would show a very high interest in food and will insist on keeping it even though it is unable to actually feed. It probably takes less than two weeks to have a growth of this size.
Doha, Qatar 1986.*



421- A medium size granuloma which was growing in the crop of a saker falcon and was regurgitated after a successful treatment. Most of the cases of growth like this size would be regurgitated by the falcon in a matter of five to ten days. In some cases, surgical intervention or manipulation by hand could be necessary to help to dislodge the bigger granuloma. Doha, Qatar 1986.

when talking about falcons, since I have seen a two year old saker with a very big granuloma in its crop while has continued to eat quite well. In this case the most prominent sign was the frequent movement of its neck. The neck movement is totally different from that of a healthy falcon when it is casting its pellet, digesting its food or vomiting. The area of the crop will be concave and the feathers on it will spread on both sides, leaving no doubt as to the provisional diagnosis of granuloma of the crop.

Treatment:

Treatment of stomatitis, pharyngitis, esophagitis and inflammation of the crop basically needs patience and care. Through the use of a mixture of antibiotics, anti-protozoa, corticosteroids and multivitamins we can be on the safe side and be sure that the treatment will progress satisfactorily, unless a serious complication, such as respiratory infection, accompanies or complicates the infection. In some cases, like esophagitis, surgery might be essential to excise parts of the granulomatous lesion to help the falcon swallow its food and pass it down to the crop. However, sometimes we have to adopt force-feeding by using an esophageal tube of soft or liquid food like a mixture of finely minced meat mixed with milk or a mixture of egg and milk for a few days until the lesion shrinks and gives a better chance for solid food to pass down. The course of treatment may last for a few days, which could be enough to cure mild cases, while in very severe cases it could be as long as three weeks, or even longer. Care should be taken not to try to remove the granulomatous lesion, especially those in the mouth, since this could lead to a severe bleeding, pain and cause the falcon's general condition to deteriorate greatly. In the case of granulomatous lesion of the crop, it might be helpful to massage the crop from time to time four to five days after the treatment has been initiated, to assist in dislodging the granuloma. When it has completely dislodged from the wall of the crop, it could either be digested or regurgitated by the falcon, if it is of medium size, while, if it is large, it might be rather difficult to digest or cast, so the assistance of a veterinarian in removing it through the mouth is required.

Enteritis:

Enteritis is inexplicit in falcons. It does not exhibit the same clinical signs in the different species of falcons, nor are its frequency and severity the same in the same species. In all the different kinds of Enteritis, a change in the colour and form of the mutes is the most clear clinical sign. A foul smell could accompany changes in the mutes. Sometimes, it appears as if the mutes contain undigested food, or long yellowish-white flat strings which look like long worms, and always confuse falconers who tend to de-



422- An adult peregrine falcon showing signs of pain and discomfort signs in its face. Enteritis could be caused for different reasons and causative agents. Inflammation of the crop and intestine soon after regurgitation of food is very common in peregrines. Also different stress factors, like excessive training in the hot climate or excessive chase and hunting, could be very debilitating and very soon reveal the signs on the peregrine. Saker falcons rarely show this kind of quick deteriorating syndrome which is shown by the peregrine. Doha, Qatar1986.

scribe them as worms. These are actually mucosal tissue sloughs from the intestine. In some cases, the mutes would be tinged with blood or accompanied by clotted blood streaks, which could be seen by the naked eye, while in other cases only microscopic examination of the mutes reveals the presence of blood in the mutes. Peregrines accounted for a high percentage of the cases and of those that were more severe. Sakers are not immune to this kind of infection, but they are not so severely affected as peregrines. Gyr falcons seem to have the same kind of enteritis and of the same severity as peregrines, and obviously it could lead to more severe conditions if not treated promptly and adequately. Enteritis is not necessarily related to an intestinal parasite, but might be related to different bacteria which have not yet been identified, because the required laboratory tests were not performed. However, many cases of enteritis were accompanied by the presence of coccidia, and it must be said that, in all of the cases of enteritis, the signs of sudden impaired flight, like a sudden lack of fitness and inability to reach high flight, and the gradual loss of weight were present to the extent that even falconers were able to identify the problem before they brought their falcons to be examined, just because of the sudden appearance of the aforementioned signs. Successful treatment should consider the presence of both coccidia and bacterial complications, by administering oral doses of both anticoccidial drug and broad-spectrum antibiotics.

Regurgitation of Food:

Regurgitation of food is very common in falcons. It is not always related to certain diseases, nor caused by any particular agent, but it could be the result of a wide range of causes, from very simple to serious disease agents. Feeding a peregrine, restraining and transporting it, or even sometimes only leaving it hooded with a full crop overnight, can cause impaired digestion and vomiting afterwards. Peregrines are far more susceptible and could deteriorate in condition, and even die as a result of the complications of vomiting. It is really surprising how a peregrine's condition could deteriorate within hours, resulting eventually in its death within a day or two (Peregrine Vomiting Syndrome), while sakers vomit very frequently and rarely deteriorate in such a way or in such a short time, even when there is no clear evidence which would suggest the possibility of food poisoning. Extensive research is required into this syndrome of peregrine mortality.

Parasitic Infections:

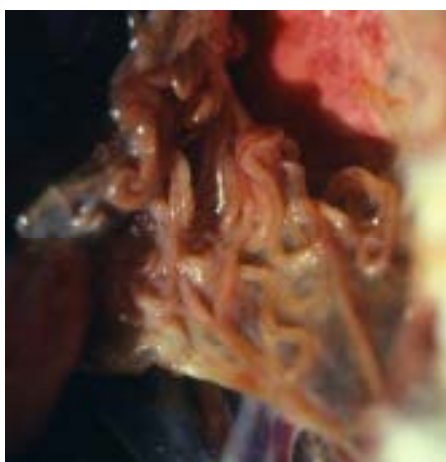
1-External Parasites:

Lice are the most common external parasites which infest all falcons. Infestations can range from very mild to very severe. In very mild cases the Lice can be seen only when the falcon is restrained and exposed to direct light. They can often be seen moving on the head feathers, the cere and beak. In very severe cases they can be seen very clearly in large numbers, hiding between the feathers all over the falcon's body. They are harmless unless the infestation is very severe, when they can cause feather damage. Other external parasites, like mites, ticks and flies are not very common.

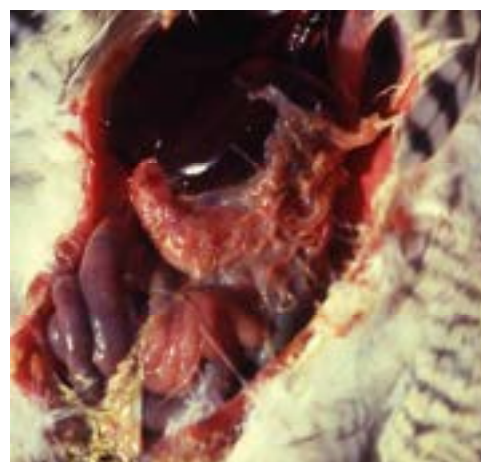
2-Internal Parasites:

Air Sac Worms:

These are the *Serratospiculum* species, which appear to be the most common internal parasite, infecting wild trapped falcons. It is found in the air sacs of not less than 70% of the falcons, from which fecal samples have been examined microscopically by direct smears. The presence of air sac worms has



*423 & 424- Serratospiculum worms in the air-sacs of two falcons. These worms are very common in the wild trapped sakers and peregrine falcons. They do not seem to cause clear clinical symptoms, nor do they impair the flight or fitness of the infected falcons. However, some infected falcons have shown some degree of improvement in flight performance after treatment.
Doha, Qatar 1985, 1992.*



been detected in more than 60 % of the falcons which died because of different reasons, for which a post-mortem was performed. In most cases they seem to cause no harm. There has been no evidence that air sac worms are involved in any health problems in falcons, except those which are related to the respiratory system. They might be involved in the Asthmatic syndrome of increased respiratory rate and low fitness which is not caused by, or related to, respiratory infections. In many cases it appeared that, the air sac worms were localized in one of the thoracic air sacs (left or right), while in a few cases they could be found in large numbers in the air sac of one side, with a few worms in the air sac of the other side.

Treatment: Fenbendazole (Panacur), is very effective as an oral treatment. The dose range is 25-30 mg/ kg body weight, and appeared to be very safe and effective. Levamisole Hydrochloride (Levacide) injections in a total dose of 15-20 mg/kg, injected subcutaneously have been tried experimentally and seem to be safe, but its effect on the parasite has not been the same in all the cases. Ivermectin in a dose of 250-400 mcg subcutaneous injections is also effective and safe. Oral treatment of Thiabendazole, has been tried, but it is known to cause regurgitation of the drug soon after administration.

Trematodes, Liver Fluke:

These are very common in the newly trapped falcons. They could be diagnosed in more than 75% of the newly trapped juvenile falcons, and could be in even more than 85% of newly trapped haggard falcons. There is no obvious difference in percentage of the presence of Trematodes between peregrines and sakers. These trematodes are apparently harmless, apart from their possible role in cases of liver necrosis and some cases of enteritis, which are not well understood. Praziquantel is the drug of choice for an effective treatment of liver fluke. A single intramuscular injection of 15-20 mg/ kg, is an effective and safe treatment. An oral dose of 15-25 mg is also suggested, but might not be as effective as the intramuscular dose.

Coccidiosis

Coccidia (unidentified) is diagnosed in the mutes of mostly, if not only, captive falcons in different ranges of severity. There are no other clear signs of illness indicating their presence. In severely infected cases there are usually signs of diarrhea, regurgitation of food and reduction in appetite. The clinical sign, which is interesting and proved to be related to the presence of coccidia, is the sudden impairment of fitness and flight, similar to the problems described in the clinical signs of Enteritis. This sign is not necessarily related only to the coccidial infection because many cases do not show any signs although the coccidial infection could even be severe, but it appears soon after the falcon has been exposed to stress factors, like excessive flight or calling to the lure for a long period. However, coccidiosis cannot be blamed for the deaths of more than few cases which were very severely infected with complications which would normally accompany such infected cases. Almost all the medical preparations for the treatment of coccidial infections in poultry can be used, but their effectiveness varies. Vomiting of these medical preparations soon after administration is very common in most falcons. Some strains of Coccidia might have already developed different degrees of resistance to many of the drugs used for treatment.

Tape worms:

Tape worms can be detected in the mutes of falcons, although they are not so common and do not seem to cause clear clinical signs of infection. They can be recognized by falconers when they appear live in the mutes of the falcons. After tapeworm treatment, many falcons have shown an improvement in their general condition and appetite. Some falconers claimed that these treated falcons have also shown an improvement in their performance and flight. The treatment of choice was Niclosamide, an oral dose of 150-200 mg/kg b.wt., once and repeated after seven to ten days. Recurrence of the infection in some cases can happen a few weeks after the first treatment, so it is helpful to adopt routine treatment every two to three months. Praziquantel can also be used as an effective treatment, by I.M. injection or orally using the same dose for the treatment of Trematodes.

Round Worms:

Capillaria is the most common Round worm which usually infects newly trapped falcons. These are also found in captive falcons which have been in captivity for many years, but not as frequently as with the newly trapped falcons. No clinical signs have been detected to be related to the infection with Capillaria. The treatment of choice is the treatment used for the Air-sac worms.

Diseases with Different Causes:

Pox:

Pox is a viral disease, which is very common and usually infects both juveniles and adult falcons during their first year in captivity. It can also infect adult falcons which have not been infected during their first or second year in captivity. Mosquitoes are known to be the vector which transmits the infection. Pox infection, whether mild or severe, is obviously enough to build a life-long immunity in the infected falcons. The severity of Pox infection could range from very small wart-like nodules on the feet, cere and eyelids, to very large swollen lesions on the feet, cere and eyelids. The lesion on the cere could extend to the inside of the mouth, causing necrosis of the inside mouth tissue which greatly resembles the lesion caused by Trichomoniasis or another mouth infection. The lesions on the feet could swell to such an extent that the falcon could lose its talons permanently. The lesions on the eyelids could also swell and proliferate to close one or both eyes, causing a great deal of discomfort, or even damage to the eyes due to the pressure which is being exerted on the eyeball or the friction being caused to it. A severe and infected Pox lesion on the cere could cause necrosis of the skin and underlying tissue to the extent that it loses the attachment of the upper beak which results in its sloughing and detachment. Pox infection is very rarely fatal, and because it is a viral disease, no medical treatment can be offered other than various topical remedies to ease the effect of the lesions. Cauterization has widely been used by Arab falconers for centuries. But in many cases it is used very badly especially when the lesion is on the cere. Many falconers burn the lesions to the extent that they leave a clear scar for the rest of the falcon's life. Cauterization is a very valuable treatment when done properly and in the early stages of infection. Sulfur ointment and Salicylic acid liquid or ointment,



425- *Cauterized pox lesions on both feet of a peregrine falcon. Cauterization is certainly the quick and most effective treatment of pox lesions on the feet, ceres or eyelids especially when the lesions were not so swollen, large in size and full of the inflammation exudates. However, it is more likely that the cauterization is beneficial no matter what the situation of the pox lesion is. It would certainly reduce the pain of the swollen lesions and possibly help not to lose the claws and stop the lesion from progressive enlargement. Doha, Qatar 1986.*

426- *(Below) The result of a neglected case of pox infection in a one year old saker falcon. The damage of the cere and nares resulted in a deformity of the upper beak. This deformity made the falcon unable to cut the meat to feed itself and its owner would have to cut the meat into small pieces and offer it to the falcon on a plate or hand feed it. A falcon like this is not expected to live long since the falconer will not always be keen to do this on a daily basis. Saudi Arabia, 1984.*



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427- *The result of a case of neglected severe pox infection in a one year old adult saker falcon. The complete sloughing of the upper beak and the progressive damage of the cere eventually led to exposure of the nasal sinuses.*

This falcon had to be euthanized because it was unable to feed even on small pieces of meat. Doha, Qatar 1986.

could also be of value in preventing the lesions from swelling and proliferating.

Vaccination against pox using Pigeon Pox Vaccine (Chevita) has been tried since 1984, and it has been more than ninety percent successful in immunizing vaccinated falcons, while the remaining percentage, which did not seem to develop immunity against Pox infection, have only caught milder infection later on. The method of vaccination was not welcomed by many falconers because it included plucking some of the feathers on the falcon's thigh.



Lead Poisoning (Chicken Voice):

I have chosen this name (Chicken Voice) to briefly describe this syndrome due to the characteristic loud frequent calls which the falcon makes when exhausted, stressed or even flaps, which sounds like a chicken voice. The falcon makes this sound and will keep on making it in the same rhythm, although it goes up and down, depending on the surroundings of the falcon. It could go on for more than ten minutes continuously in a very annoying way, even when the falcon is not stressed or approached. In some of the moderate to severe cases, the falcon appears to be exhausted after only a few flaps and tends to lie down on the falconer's fist. It is unable to support its weight on its legs, and spreads its wings in an effort to support and balance its body. Increased respiratory rate does not necessarily accompany these symptoms and good appetite, normal body weight and condition are maintained in most of the cases. However, the facial expression of the falcon gives a clear picture of exhaustion and its eyes are sunken and lose their brightness, and in some cases they give the impression as if the falcon is trying to concentrate on something interesting. I tend to call it sometimes: "The Crazy Look". After a few flaps, most of the affected falcons suddenly go into a very stiff spasm and their breathing might stop for a few seconds, which leads one to think that the falcon has died. However, within few seconds, it will take a deep breath and return



428- *The classic posture of a seizure attack due to lead poisoning. This adult saker falcon collapsed soon after bating like almost all moulting falcons bate when they are approached by anybody. It would go completely stiff for a few minutes and stop breathing, then it would start relaxing, take a deep breath and gradually go back to normal.*

Doha, Qatar 1988.

429- *Stiffness of the wings is the common result of untreated lead poisoning cases., if the falcon survives after suffering frequent nervous seizure attacks. Doha, Qatar 1986.*



gradually to normal, and, although exhausted, can usually jump back on its perch. If we immediately force the falcon to flap again, it will not go into a seizure attack again until at least an hour has passed since the previous attack. Lead poisoning is the main cause for such cases. But poisoning by other chemicals could result in almost the same signs. It

is obviously not necessary to have the ingested lead shots lodging in the stomach or the intestine of the falcon, for long periods, to exhibit the signs of poisoning. X-ray images of many cases which were suffering from the same condition, and responded to the treatment of lead antidote (Sodium Calcium Editate) subcutaneous injections, did not really reveal the presence of the ingested lead shots. The response to treatment is very good and encouraging, especially when the treatment is employed early when the signs have first appeared on the falcon. Supportive treatment of doses of vitamins E, B1, B6 and B12, administered for three to five weeks is important in most cases to enhance a quick, complete recovery. In some cases, where treatment has not been initiated as early as it should have been, the wings of the affected falcons will lose their normal joint movement and appear as stiff dropped wings. This stiffness and impairment of the wing joints prevents the falcon from being able to jump to its perch, and if it falls on its side, it would not be able to sit back on its feet easily. This leads the falcon to live a miserable life and no apparent treatment seems to be sufficient to bring about a full recovery. However, a falcon suffering from this condition usually maintains its appetite and general condition. Blood parasites could be incriminated in these cases, although simple blood tests performed for the detection of blood parasites, did not show such an involvement. Poisoning with different domestic insecticidal products, which contain Tetramethrin (Raid), Permethrin (Pif Paf) and Diazinon, could give the same signs and could probably cause death in a much high percentage of affected falcons.

430- *The sudden onset of stiffness or inability to properly stand up on the perch or the floor, and inability of using both feet, while maintaining the general health. Cases like these are still common and appear to affect some falcons, mostly sakers. They could be caused by different poisonous materials like insecticidal preparations. Their response to different treatment is not clear and not well understood. Some of the cases responds gradually and very nicely to anti-inflammatory, antibiotics and vitamin treatment, while others do not show the least of response and keep deteriorating and in many cases they would have to eventually be euthanized.*

Doha, Qatar, 1985.



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431- (Top) A severe case of sudden paralysis due to unknown causes. The onset of it was so quick at its time, but the owner could not think of any reason. This was an adult saker falcon in 1983. Cases like this are still seen from time to time and are mostly related to poisoning by different kinds of chemical poison or even natural poison, like eating beetles or cockroaches. Falcons usually vomit before they go into this stage of paralysis. Cases like this would rarely respond to supportive treatment, and usually

do not live for long.
Doha, Qatar 1983.



432- Partial paralysis in a juvenile saker falcon, mostly due to poisoning of different kinds of unsafe insecticides. Many falconers are still unaware of the potential hazardous effects many commercial insecticidal could have on the life of a falcon. Many cases like this have been presented soon after the use of these insecticidal sprays, and in some cases the falconer insist that he has been using it on many falcons without having such a problem!

Doha, Qatar 1983.



433- A debilitated peregrine falcon mostly due to lead poisoning. However, lead shots were seen in the X-Ray of the digestive system, and the falcon did not showing the typical clinical signs of lead poisoning (the Chicken Voice Song). Nevertheless it responded very slowly to the systemic treatment of Sodium Calcium Editate injections and supportive treatment.

Al-Khobar, Saudi Arabia 2005.



434- A juvenile saker falcon passing through its first moulting season presented to the clinic in the summer of 1984, showing this sudden onset of paralysis syndrome without any previous detectable signs. Blood tests were not helpful in making a proper diagnosis. A case like this could live much longer than one would expect, but its response to different treatments was not clear. Some cases respond slowly to anti-inflammatory, antibiotics and vitamin treatment, while others do not show the slightest response and keep deteriorating. In many cases they would have to be euthanized.

Doha, Qatar 1984.



Sudden Intermittent Nervous Signs:

These are common cases and, they could either start as sudden evident nervous disorders, or as intermittent mild signs which could not be noticed by the falconers until they become very severe. These nervous signs or attacks can occur either once a fortnight, or as often as several times a day. The frequency of these cases is obviously more in the sakers than the peregrines or gyrs. The attack usually occurs when the falcon is exhausted while chasing its prey and, in many cases, soon after catching it. In some other cases it could occur even when the falcon is called to the lure. Most of the cases showed very good and prompt response to vitamin B complex injections, supported by oral doses of vitamin B complex and vitamin E. These cases are not like those cases of nervous signs which are due to Herpes virus infection and very commonly infecting the pigeons. These are certainly not infectious and not affecting the general health or conditions of the falcon, and they always respond very well to the treatment.

Vitamin Deficiency:

Most cases of Vitamin B1 deficiency can easily be diagnosed because of the clear symptoms which are exhibited by the affected falcon. These symptoms are compared to those of B1 deficiency in chickens which are similar to a great extent. "Stargazing" is a very clear symptom, which starts as a mild tendency of the falcon to raise its head upwards especially when it is hooded. This mild symptom will usually respond to systemic or oral treatment of Vitamin B1, which is usually very quick and encouraging. However, chronic cases of nervous signs especially those exhibiting "torticollis" may re-exhibit the nervous signs a few months after the apparent clinical improvement. Therefore, it is very important to maintain the treatment by using low oral dosage of Vitamin B1 or B complex two to three times weekly. The use of Multivitamins as a dietary supplement on a daily basis or twice a week, could be very valuable in treating cases like these, and is very helpful in maintaining the general conditions of the falcon, especially during the moulting season.

Traumatic Injuries:

Wild falcons could have different kinds of injuries when they are trapped. Also trapped falcons could inflict other injuries on themselves soon after that, and during their first few days in captivity. Most of



*435- Signs of typical torticollis in an adult saker falcon in 1986. It is one of the cases suggesting the possibility of the poultry Newcastle disease or herpes viral infections which usually infect pigeons and cause encephalomyelitis. It is more or less like the infection in pigeons, which mostly starts as mild or unnoticeable, and then gets more pronounced and severe. Since it is a viral infection, it does not really respond to medical treatment. However, many cases have improved on their own although did not become completely healthy and still showed signs of mild torticollis from time to time, especially when approached or stressed, and of course were source of infection to other falcons. Some others responded to the branding treatment which is practiced by some old falconers when no medical treatment is available. It is simply by branding the back of the skull using a red-hot four to five inch nail. I have seen some of the cured cases, after I saw them before branding. Some others died soon after branding!
Doha, Qatar 1986.*

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436 & 437- A keel bone injury in a juvenile peregrine falcon. This kind of injury is very common, mostly in those peregrines which are smuggled through the Gulf in small fishing and trading boats. These peregrines are usually wrapped in the "Guba'a" which is a jacket like device made of cloth covering the back and restraining the wings and feet of the falcon, while the breast is not covered. When smuggling these falcons, they hide them between the goods boxes on the wooden floor of the boat. The continuous friction of the keel bone with the rough wooden surface is the starting cause of this kind of injury, which gets bigger with the violent movement of the falcon. It is shown here before and after surgery. Doha, Qatar 1986.



these injuries could be easily treated. The most severe, traumatic injuries are fractures of the legs or wings. Other mild injuries could be those which are caused by the trapping net when its nylon strings get tightened around the falcon's toes to cause a severe obstruction of the blood flow in the blood vessels, or simply injure the toes. These injuries are not so difficult to treat if they are tended promptly and properly. Unfortunately, they are usually neglected or improperly cared for by the falcon trappers who are often ignorant of the best way to deal with such injuries. So it will often be a long time before the falcon receives proper treatment. During this period the injured falcon will often be annoyed by the injury which in turn will cause it to frequently and aggressively peck and bite on it. This in turn will cause it to get even more damaged to the extent that the bones of the toes appear after the skin and underlying tissues have been damaged by the falcon itself, and, in many cases, it breaks the toe bones completely. The treatment of most of these severe cases, needs surgical intervention to amputate the damaged parts of the affected toes. Other traumatic injuries which happen during a falcon's life, could be related to the practice of hunting during the hunting season, or during the moulting season. Injuries which are related to the hunting season, could be due to a fight with a houbara, which is not that common, or very severe in most cases. It could happen due to hitting the ground when the falcon falls down in the air while it is grasping the houbara, or when the flying falcon collides with the spikes of iron fences which are used to surround private properties. Sometimes falcons are injured by the different sizes of spikes of the desert acacia. I have seen several cases of severe injuries which were caused simply by hitting the lure in a strange way. One case was so traumatic that it caused obvious brain or spinal cord damage, which led to the falcon being completely paralyzed for the rest of its life. Many cases have resulted in leg paralysis, which were incurable. Moulting season injuries could be summarized by the very common injury caused to the hind toe when the thin nylon/cotton jesses, which are used for the hunting season, circle the hind toe and constrict the blood vessels, causing a complete obstruction to the blood flow, which leads



*438- A severe injury of both inner toes mostly due to the trapping net which initiates it. The falcon starts biting on the wound until it reaches this degree of damage to the skin and underlying tissue, and expose the phalanx bone. Amputation of the toe is the only medical intervention that could be advised in a case like this. Tens of cases like this in different trapped falcons are seen every year.
Doha, Qatar 1993.*

*439- A minor injury of the inner toe which is curable if the falcon is prevented from biting on it and causing it to get seriously affected.
Doha, Qatar 1994.*



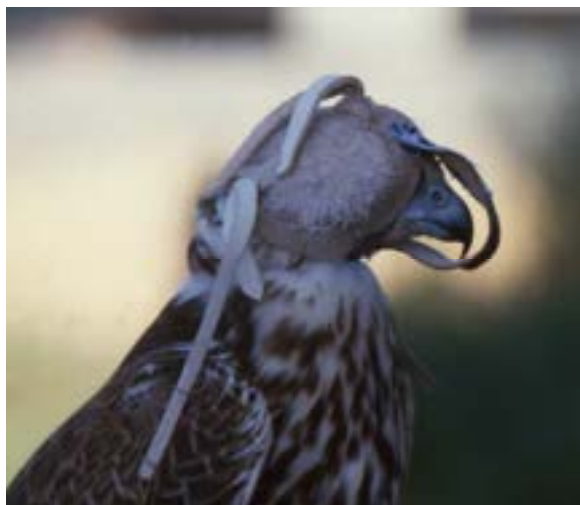
to swelling of the toe, damaging the skin, underlying tissue, blood vessels, tendons and nerves at that point. These cases are curable if tended soon after they happen, using the proper treatment of anti-inflammatory drugs and antibiotics.

Wild falcons do not usually settle down easily in captivity. Many newly trapped falcons, especially peregrines bite their jesses and toes which cause them severe injuries. Apparently such injuries irritate them so much that they will bite even more in an effort to scratch the injury. This leads to the same results which happen due to trapping net injuries. In all these cases, falconers usually underestimate such injuries and try to treat them simply with any kind of disinfectant or ointment, but this will not prevent the falcon from biting its injured toe which will be imprinted on its behaviour later on, even after it has gone through the first stages of taming and training. The first stage of treatment should therefore be to stop the falcon from biting its toes. This is sometimes achieved by adding a piece of leather to the falcon's hood to cover the beak.

In some countries, where the trapping and trading of falcons is illegal, falcon traders use different methods to transport falcons. These different methods mostly depend on restraining the falcons by using a specially made modified jacket "Guba". Restraining a falcon with the "Guba" without anesthesia or tranquilization will not sufficiently restrict its movements and it may try to get rid of it. As such falcons are transported by putting them directly on the rough surfaces of wooden boxes, they are likely to inflict different kinds of injuries to their breast and keel bones, due to the excessive friction they exert on their breasts. Excessive friction with the "Guba" alone will cause injuries and abrasions to the area of the wing joint between the humerus, radius and ulna. Sometimes such injuries could heal on their own, but usually complete and normal healing will never be achieved unless the wounds are sutured.

Injuries during the moulting season are re-

Falcon Diseases



440- The best, practical and easiest way to prevent a falcon from biting on its injured toes. This piece of leather is adjusted and stitched to the front of the hood. It could be removed soon after healing of the injury. This was the first time (1985) I saw this simple and effective method, and cannot recall who it was who suggested it to me. Since that time it has been extensively used by many falconers who happen to have a falcon that has the same problem. However, one must be sure that the falcon does not drop its hood off its head. Doha, Qatar 1985.



442- A case of an adult saker with abnormal, weak and deformed, depigmented feathers which are newly growing during the moulting season. The cause of this case, which is not uncommon, is not clear, but it is certainly not infectious and does not affect the general health of the falcon.

Hormonal or environmental causes could be involved.

Doha, Qatar 1987.



441- An injury of the wing joint, which in most of the cases I have seen was caused by excessive friction of the wing joint with the "Guba'a". An appropriate course of antibiotics with an anti-inflammatory is mostly sufficient to treat the case. Sometimes it recurs and therefore, surgical intervention might be necessary to evacuate the inflamed exudates and clean the wound, which could be deep and affect the joint area. The continuous movement of the wing plays an important role in delaying the complete recovery.

Doha, Qatar 1986.

lated to the jesses and perches used. There are two kinds of jesses which are commonly used. The thin light weight ones, which are used for hunting and the thick ones, which are used during the moulting season. Both of these are made of a nylon-cotton mixture. At the beginning of the moulting season the falconer usually replaces the falconry jesses with thick moulting jesses. The moulting jesses rarely cause injuries to the hind toes by getting caught around them. This happens when the falcon is tied to its perch for moulting without changing its falconry jesses, which can easily twist around the hind toe and cut off the blood circulation. The twisting of the falconry jesses during the moulting season is a very common problem and it is usually already too late when it is discovered. The toe will be severely swollen and curved towards the sole of the foot, which eventually leads to a severe injury to the sole of the foot caused by the hind talon. Tendonitis would be the common sequela to the twisting of the falconry jesses around the hind toe. These cases are mostly incurable. The affected falcon will be unable to use its hind talon normally, which in turn affects its hunting performance. The best way to place the perches during the moulting season is to be just within the reach of the falcon, as far as its leash allows. For example, the distance should be about seventy to one

hundred centimeters from the spike to which the leash is tied, depending on the length of the leash itself. The best perches in this respect are those with smooth surfaces which do not allow the leash to get tangled to the perch and reduce the free movement of the falcon. However, AstroTurf could be used to cover the surface of any kind of perch that is used.

Feather Abnormality and Repair

Feather abnormality occurs in adult falcons during the moulting season. The abnormal feathers could occur during the first year in captivity, or at any later stage. The occurrence of abnormal feathers is not necessarily related to the apparent general condition of the falcon, nor is it related to certain kinds of food. In fact most of the falcons which have had abnormal feathers were in a very good condition and there was no evidence of any disease affecting their general health. In most cases which I have examined, the problem was restricted to the primary feathers and occasionally to the tail feathers. These feather problems were more common in saker falcons.

Feather abnormalities can be divided into two kinds: abnormal feather growth and retarded feathers.

Abnormal feather growth: The feather in this case, appears weak or curved either at the base or at the end. The vane of the feather does not spread uniformly on both sides of the shaft and cracks might appear in the shaft. Moreover, the colour of the feather is usually paler than normal and in many cases it shows patches of a powdery grayish colour spread along the vane, or sometimes it is even almost completely gray.

Retarded Feather: This kind of abnormality can appear in two sub-forms:

(a) The shaft is very small, weak and does not exceed 2-3cm in length. It dries and falls later on, or it could easily detach from the skin. The base of the shaft (quill) is too small and constricted.

(b) An apparently healthy, strong and generally normal feather that grows to only half or less of its normal full growth, then falls off or detach from the skin. Another feather will usually grow as a natural replacement in the same place, but it will also fall when it reaches the same size or even less.

In all cases of feather abnormality, there was no evidence of mites, nor was there any more lice than normal. Treatment by additive multivitamins has been tried and many cases have shown different degrees of partial recovery. Complete recovery is not easily achieved. In many cases, falconers do not commit themselves and their falcons to a very long course of treatment, or give me a chance to find out what happened to their falcons in detail. Hormonal imbalance could also be contributing to the cases of this kind of problems. Thyroxin tablets and progesterone injections have also been tried to induce moulting in both sakers and peregrines. Sakers responded fairly well, but peregrines did not respond that well to low, safe dosages.

Feather Repair:

Feather repair is a very important process which the falcon needs very frequently, because falcons do not grow new feathers in place of those which have been pulled out by force, as is the case with pigeons and other domestic birds. Broken feathers, therefore, are considered a problem during the falconry season and they should be mended in any way so as not to adversely affect the falcon's fitness in flight. Feathers could break at any point along the shaft. Breaks or damage at the centre of the shaft are the

most frequent kinds of damage that could happen to the last three of four primary feathers in particular. The technique, as well as the instruments which are needed to mend the feathers, depends entirely upon where the damage has occurred. I have used two techniques to mend the damage which occur at different positions on the shaft.

Damage to the Upper Two Thirds: When the feather is not extensively damaged it can be mended without the use of another feather. If the broken piece of feather has been lost we can choose another feather of the same wing (left or right) and position. An equivalent piece can be cut from it to match the lost piece. The pointed end of a fine needle about one inch in length is introduced into the shaft of the broken piece, while the other end is inserted into the shaft of the original feather. The needle should be covered with a quick drying adhesive before introducing it into the shaft. The two damaged ends of the feather should be matched so that the feather can lie in its normal position. A small piece from the hollow shaft of an old feather is prepared and painted with the adhesive, and then placed and pressed on the damaged point. This will act as an additional splint to strengthen the point of repair in case of any extraordinary pressure the feather might be exposed to when the falcon attacks or fights its prey. It is also important to keep the two ends of the damaged point close to each other, to achieve a better looking and non-friction result otherwise a rough surface could result. When the broken piece of feather has not been completely cut from the rest of the feather and is still attached to it, an incision with a sharp surgical scalpel is made along the median groove of the shaft of about the length of the needle on both sides of the broken point. The needle used for mending is then covered with adhesive and should be pressed to lodge into the incision. Afterwards, the rest of the procedure is carried out as before.

Damage to the Lower Third: This part of the feather is the one with the hollow lumen that occupies this part of the shaft. This hollow lumen plays an important role in mending the damaged feather at any point of this part. Instead of using the needle solely, which obviously cannot fit into the hollow lumen of the shaft in this part, I would have to select a piece of shaft from an old feather of a thickness which could be introduced into the hollow shaft at the point of damage. Before introducing this piece of shaft it is better to guarantee its strength by passing a needle through it. The rest of the technique used for imping the feather at this point, is as in the imping technique described previously.

GLOSSARY

Abu Fatila: The name of the Flintlock hunting gun which was used during the 18th to the early 20th century by the Bedouins in the area.

Abu Leilah: Refers to a wild trapped peregrine falcon and means that it usually does not need to be tamed for very long time, not more than one night (Leilah).

Adham: Refers to the general dark colour of the saker falcon, but lighter than the real black colour which is represented by the Sinjari.

Ahmar: Refers to the general colour of the saker falcon, which is mostly a light brown-chestnut colour. Also, in some cases it is used to describe the colour of some juvenile peregrines.

Akhdar: Refers to the general colour of the saker falcon which is not as dark as the Adham.

Al-Abd: Means in Arabic “the slave”, which refers to the peregrine falcon, describing its quick response to taming and its tendency to be obedient.

Al-Areen: This is the Arabic name of the National Wildlife Park in Bahrain.

Al-Hur: This is the Arabic name of the saker falcon, which means “The Free”.

Al-Khizanah: This is the equivalent to the Ministry of Finance during the early Islamic ages.

Al-Khobar: The capital of the Eastern Region of the Kingdom of Saudi Arabia, where the falcon clinic has operated since October 2002.

Al-Mugamma’a: The local Arabic name of the Matchlock rifle which was used during the 18th, 19th and early 20th century.

Al-Qatari: The name given to the few juvenile peregrines which are trapped every year in Qatar.

Ashgar: This means blond in Arabic, and refers to the blond general colour of the saker falcon.

Bahriyah: This means in Arabic, “related to the sea”, which is referring to the different peregrine subspecies that live close to the sea. The features of these falcons are not always agreed upon by all falconers. These are small size falcons and their juvenile colour is generally light, while the adult plumage is very light bluish-grey. It is very confusing when we want to distinguish it from other peregrine subspecies which are called Bajja and Jibaliyah.

Bajja: Has no clear meaning in Arabic. It refers to one of the subspecies of peregrine falcon, like the aforementioned.

Foreigner: Refers to the forms of peregrine falcons which are not used to come to the Gulf, although they could be pure peregrines. It is rarely used in the recent years since the number of hybrids which come to the Gulf every year have increased lately.

Full Crop: It refers to the falcon which has been fed to the limit that its crop is bulging and could be recognized from a distance.

Guba: This is the modified light weight jacket which is made of cloth and used to restrain and transport falcons when anesthesia is not available.

Inna: This is the main camp of the large hunting trip party, where the heavy trucks and the other heavy equipment would settle. This is where the service people, who are not participating in the hunting, stay until the whole camp

Glossary

moves to a new place.

Izba: This is the place where few hunters spend a few nights away from the Inna where the rest of the people camp. The decision to spend these nights in the Izba depends on the availability of prey where they could be tracked and hunted without the need to move the whole camp to this area.

Jibaliyah: Means “related to the mountain” in Arabic. It is related to the aforementioned Bahriyah and Bajja. There are no clear differences between these three forms of falcon.

Jurudi: This is the subspecies of saker falcon which shows in its adult plumage the clear transverse lines formed of wide light coloured dots.

Kobaj: The male saker falcon.

Kurwan: The Stone Curlew.

Learned Falcon: This is a falcon which has passed the stage of capturing a houbara which has been released by the falconer for the purpose of its training.

Majalis (P): Means the guests sitting rooms, whether large or small. It is where the Majlis (S) owner receives his guests daily without appointment or notice.

Mangala: This is the old traditional tube-shaped structure which was used by Arab falconers to transport falcons before they started to use falconry gloves. Usually it is made of padded carpet, while some falconry furniture makers started to make it of good quality leather.

Mathlooth: This is the name given to a small sized female or a large male falcon. It is applicable to both saker and peregrine falcons. In Arabic, it means “two thirds”.

Ni’airy: This is almost another term used to describe Mathlooth.

Ridad: This is the term used by the old Arab falconers to describe a severe, advanced case of a Respiratory Disease.

Scissor Wings: This describes the wings crossing each other near to their ends. It is mostly related to a broad breasted falcon and the Arab falconers take it as a feature of a fast flying falcon.

Shabba: This is the long wooden perch which is used to transport several falcons at the same time. It is also used to exhibit the falcons in the falcon market where the floor is constructed.

Shanather: This is the Ammonium Salt which is used by local people to polish the bronze coffee pots. It is used by the falconers to dislodge the fatty layer off the falcon’s stomach.

Sharha: This is the gift given by the master to his falconers and other helpers who have participated in the hunting trip. It could also be given by some wealthy Sheikhs and people to their occasional visitors and guests. It might be money or any other valuable goods.

Sinjari: This is the darkest form of saker falcon.

Snake Head: This is the term used to describe the elongated head of a peregrine falcon.

Tala’a: This means the falcon which has accurate and long eyesight, and has the ability to discover the presence of a houbara in the area when the falconers cannot track its footprints.

The Friend: The word which is only used by a falconer to praise a saker falcon which has accompanied him for

years.

The Slave: This is the word used to denigrate the character and behaviour of the peregrine falcon.

Tiba'a: This is the male peregrine falcon.

Wakir: This is the wooden or the Aluminium single perch.

Wakri: This is the name given to the lanner and lagger falcon.

Wakri Abu Ras Ahmar: This is the name given to the lanner and lagger falcon, which means the red head Wakri. It is meant to differentiate it from the different forms of sakers that are not considered by Arab falconers to be sakers, which are given the name Wakri Al-Harar.

Wakri Al-Harar: These are all the forms and subspecies of saker falcons which are generally small in size and do not represent the ideal colours of the saker falcons.

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