

Bowhunting in France, an emergent city dweller leisure reconciling sustainable development and countryside management

Pierre GINET

Professeur des Universités

CEGUM-GEOPOL (EA-1105)

Université de Metz

E-mail : Pierre.ginet@univ-metz.fr

Abstract: Bowhunting appeared officially in France in 1995. It has become an increasing practice and a possible new way of wildlife and countryside management. Bowhunting is not only a new way for a come back to nature for city dwellers, but the best alternative to poison, always massively used by the authorities for vermin control. Therefore, bowhunting sits at crossroads of leisure and sustainable development. Moreover, its safety makes its use possible even in urban peripheries. Some financial and juridical aspects, typically French, however still slow down its spreading among the youngest.

Keywords: Bowhunting, rural-urban connexions, sustainable development, countryside management

Résumé : La chasse à l'arc constitue une activité cynégétique légalisée par les pouvoirs publics français en 1995 seulement. Inspirée d'une pratique en vogue aux Etats-Unis depuis 1865, elle connaît une expansion rapide auprès d'un public majoritairement citadin et aisé. Cet essor fait d'elle un paradoxe dans le monde de la chasse. Stimulée par l'essor des nouvelles pratiques sportives de plein air, elle constitue un révélateur original du désir de retour à la nature exprimé par une part croissante de la population citadine. Au-delà de ces premiers éléments d'analyse, cette communication tente d'évaluer la capacité de la chasse à l'arc à répondre aux critères d'une gestion durable de la faune sauvage et, en cela, de se positionner comme une alternative à des modes de chasse traditionnels. Elle cherche à révéler les obstacles qui ralentissent son expansion et les perspectives de développement qui s'offrent à elle sur les plans culturel, écologique et économique.

Mots-clefs : Chasse à l'arc, relations villes-campagnes, développement durable, développement rural

Introduction: France counts 1,65 million hunters, 3% of its whole population. This number is currently decreasing (1,4 million hunters in 1999)¹. One effect of this evolution is the remarkable development of the wildlife faun, with widespread correlative damages to the arable lands. For instance, the roe deer population, almost extinguished at the beginning of the 1970's, is now 1,2 million individuals and progresses both quantitatively and by the new territories it occupies²; and the coypu, introduced in France for its fur (nutria), has become since then a major destroyer of riversides and a vector of mortal diseases...

The regulation of the faun by the « traditional » hunting (with guns) is progressively replaced by the use of poisons, legal but antiecolologic and non sustainable regulation, or by original ecological methods but insufficient alone to allow a correct management of faun populations, when they are not, moreover, dangerous for the resident populations: reintroduction of great predators like the lynx in the Vosges in 1972, the wolf in the Alpes in 1992 and even the bear in the Pyrénées in 1996.

In this context, bowhunting, legal in France since 1995, appears as an alternative to the traditional hunting and both cranky and inconsistent regulation solutions experimented in the last years by the authorities. In full expansion, it finds its roots in the oldest human tradition and constitutes in the same time an astonishing modern activity, moreover source of economic development. It deals with an urban public, wealthy and cultured, and is a practice compatible in both rural and urban peripheries.

The method of participating observation, developed by Malinowski in the 1925's has been used for us to collect one part of the information of this paper. His author has been a member of a bowhunters association from 2003 to 2005. His practical experience of bowhunting, his knowledge of a relatively closed social circle, and his status of researcher give him an original point of view of this emergent practice and allow him to replace this last in a more general and theoretical perspective.

1 – Rebirth and spatial spread of an ancestral practice, from the United-States to Europe

The invention of the bow comes from the mists of time. Arrow heads, dating from more than 50.000 years, have been found in Tunisia. Only 25 years, Inuit and Bushmen were still hunting big game with a bow³. If now gun replaces this weapon among first societies, white people of Quebec have conversely adopted the bow from the 1960's onwards to such an extent that bowhunting has become a popular leisure. Deer hunting has thus been legalized in 1959 by the Quebec authorities. Initially restricted to the Outaouais territory, this way of hunting has been stretched out to the whole Belle Province after 1972⁴. In the United-States, bowhunting can be practiced the whole year round, because of the great difficulty to hunt an animal with a bow and, as a result, the low cynegetic pressure level⁵. In this country, the use of such a material for hunting come back from the end of the American Civil War (1865), when the Southerners, defeated, had to lay down their (fire)arms. In face of firearms prohibition, the bow became a possible alternative for hunting, of course just as a food activity. Two brothers, M and W Thompson, set off on the production of bows for hunting inspired by American Indian techniques⁶. The passion of the American people for the brother Thompson stories ends up in the creation of National Archery Association in 1879. In 1911, an American Creek Indian called Ishi, last living person of his tribe, give away in extremis, trade secrets relative to the making of a hunting bow and to the way of hunting of his ancestors⁷. This handed down thousand year-old knowledge bring back to life any more, both north-american tradition and taste for wilderness. Nowadays, bowhunting counts four millions regular followers, and has an important economic impact. For instance, most of hunting bows sold in France every year come from the United-States, and Easton society is in a quasi monopolistic situation for manufacturing and trade of arrows all over the world.

France follows such a trend just for a short time. It shows the desire for a return to nature from an increasing part of people, not totally standardized by the big cities way of life.

Hunting practice then war activity before becoming leisure, tradition of archery in France, on sports plan, begins with the organization of archers companies which often had the advantage over English soldiers during the Hundred years war. In spite of the outdating of this weapon, later supplanted by the arquebus during the XVith Century, some archers always gathered to shoot together within the framework of an emergent leisure always alive.

¹ Fédérations des associations des chasseurs d'Europe, 1995.

² CNERA cervidés-sangliers, Bar-le-Duc, 1999.

³ BUCHMANN (Y) 1995, « L'arc et l'homme », Université de Bordeaux I, Mémoire pour le Certificat international d'écologie humaine, 82p.

⁴ GUARDO (G) 1993, « L'arc et la chasse », Montréal, Les éditions de l'homme, 352p.

⁵ A slight cynegetic pressure which allows, even in France, an increasing of the number of followers.

⁶ THOMPSON (M), 1879, «The Witchery of Archery ».

⁷ KROEBER (T) 1974, « Ishi », Paris, Plon, coll. Terre humaine, 350p.

In the same way, similar leisure activities, coordinated by the FFTA (French Federation of Archery), are in expansion (field archery, 3D archery). In the USA, prizes of 50.000 dollars are available for winners of certain great 3D competitions. This last is the main discipline in the field of archery, long way ahead of Olympic archery (concentric targets) which is perceived by the young as rigidly set in outmoded tradition.

French however just counts 400 bowhunters in 1995, if we take into account members of the FFCA (French Federation of Bowhunters), constituted this year. But they are 12.000 in March 2004 (if we take into account the bowhunters who followed obligatory trainings) including 5.000 regular members according to the FFCA¹.

From the rabbit to the elephant, every game has been hunted with a bow. Of course, the hunting bow (called “recurve”, “flat bow” or “compound”) distinguishes itself from this one used by sportsmen because of its more important strength and its armoured arrows, as efficient as bullets. Bowhunting requires a real proximity with game (less than 20 meters), a good shooting mastery and an important knowledge of wildlife.

2 – The role played by the FFCA in the french bowhunting organisation

The French Federation of Bowhunters (FFCA) is at the origin of the 1995 legislative text which legalizes bowhunting in France².

To go in for bowhunting not only needs now a hunting permit but also a special attestation obtained after a special course organized by a Departmental Federation of Hunters, about security, rules and technical features of such a form of hunting.

Bowhunting is possible and legal for instance within the framework of an association which only counts gun hunters. But seeing that cultural aspects and practice of both activities are however very different, a increasing number of hunters with a bow gather together in new exclusively bowhunters associations.

The FFCA has authority to gather bowhunter associations. It provides a representation for the adherent associations³ facing state authorities, European Union, Medias and world of hunters. The building-up of the FFCA is inspired by the north-american example, in which bowhunters groups have been set up for a long time⁴ to defend and develop, from a viewpoint respectful of the natural environment, bowhunting practice and induced economic fields.

This association is in charge of study and observation missions; bowhunters are thus invited to fill in a questionnaire after each kill. This measure must give a good knowledge of average shooting distances, efficiency of hunting arrow blades, minimal bow strength, etc. and is ultimately the structure which makes recommendations relatives to bowhunting ethic and practice. In order to reach this goal and on the basis of the US example⁵, the FFCA keeps up regular links with the journal « Le Chasseur à l’Arc » reappointed « Charc » in 2005, which is the main media in the circle of bowhunting.

Last but not least, FFCA has an “Ethic Committee” in charge of the broadcasting of good practice rules, and a “Training Committee” at the origin of a special bowhunting training channel, supervised by registered staff.

3 – The bowhunter : a city dweller « closely related to the nature »

Bowhunting is paradoxically a modern hunting style. Bowhunters are in the main city dwellers and not countryside gun hunters converted late in life to another hunting practice. They also form a younger public than the traditional hunters one does, with moreover different purposes. A comfortably off public regularly trained to archery, sociologically and

¹ Fédération Française de la Chasse à l’Arc, 2003.

² Arrêté du 15 février 1995 relatif à l’exercice de la chasse à l’arc, précisé par le décret du 13 février 2002 (JO n°39 du 15 février 2002, page 2993), puis par l’arrête du 7 février 2003 (JO n° 51 du 1 mars 2003 page 3646).

³ 72 associations in 62 french Departements, at the first quarter of the year 2004.

⁴ International Bowhunting Organisation, International Field Archery Association, National Archery Organisation, Archery Trade Association (ATA) = Archery Manufacturers and Merchants (AMO), World Bowhunting Association, Bowhunting Preservation Alliance, US Fish and Wildlife Service, Pope and Young club...

⁵ ...in this country, journals focused on bowhunting are numerous (Traditional bowhunter magazine...).

intellectually often well-situated, throw into disused spaces where just live an ageing population rooted in an outdated agriculture: « *Traditions of archery concerns as well present intellectual classes, but with an other aim than just socialisation; they do have the taste and genuineness of the traditional French country¹ culture. At the roots of this stream, is nostalgia of the high and middle urban social classes for the loneliness into the forest, for wilderness and for the noble memory of such hunting practice. Ancient longbows, with their historical touch and the beauty of their shape are well designed for such customers* »².

In some French regions, bowhunting is the more often practiced in suburban spaces, as in the Nord-Pas-de-Calais Region, in which the population density is higher than 320 inhabitants per km². The ancient interweaving of urban and countryside spaces, the presence of fallow lands in relation with the collapse of old industries, contribute historically to the production of a very complicated landscape, in which only short range shootings are possible and where bowhunting is particularly well fitted (cf. map).

The Centre Region Hunters Union, in partnership with the FFCA, has made a survey about the bowhunter profile³. In spite of its local value (The Centre Region, where Sologne is located, does have an important hunting « luxurious » tradition: private marshes and forests, “chasse à courre”, etc.), this survey shows trends we have also seen in the Nord-Pas-de-Calais Region:

- Bowhunters are rather young, the less than 40 years old population represents 55% of the whole bowhunters. Such an age structure is a hope for further development of bowhunting, and may stop the decreasing of new licences delivered every year.
- Bowhunters belong to the active population at 95%. Pensioners, who form the main population of traditional hunters (with a gun) are here a minority with only 9% of the total number. It is because this specific practice supposes to be in condition and to train for shooting every week all over the year.
- The bowhunter is also a “pluridisciplinary” follower. 88% of them keep their guns and only 10% are exclusively bowhunters. Some of them do have even four different types of hunting practice (small game hunting, hunting with a goshawk, unearths hunting, bowhunting...).
- The bowhunter is rarely a farmer (13%) but often belongs to social classes which do have their professional activity in big cities: 26% belong to the managerial staff category, 25% are civil servants, 13% students. It is a leisure paying by urban dwellers.
- The bowhunter is infrequently a specialist of one unique game (25%) but rather an opportunist (75%)⁴.

4 – Relevance of bowhunting for the environment management

4.1 The case of the lead pollution.

As quicksilver and cadmium, lead is one of the more noxious metals⁵, responsible for a potentially lethal poisoning called saturnism. However, almost 250 million cartridges are shot in France every year: 3/4 for hunting (more than 6.000 tons lead per year), and 1/4 for ball-trap (2000 tons per year).

Most of the 200 to 300 pieces of lead shot contained in each cartridge end up scattered into nature, with, nevertheless, some important places of concentration (humid areas⁶, ball-trap sites...).

France just becomes now aware of this question, long time after the United-States, and first country in 1991, to forbid lead shot for water game hunting. In Europe, the banning of lead in humid areas concerns Great Britain, Finland, Belgian Flanders, Norway and Sweden. Lead shot cartridge is totally forbidden in the Netherlands and in Denmark since 2000.

¹ In French, the word, which doesn't exist in english is « terroir ».

² DIDRIT (M) 1996, « Le tir à l'arc : Etude socio-ethnographique d'un groupe d'archers de la banlieue parisienne », Université Paris V, Mémoire de Maîtrise d'Anthropologie sociale et culturelle.

³ FFCA statistical survey realized in 2003 with 1.000 bowhunters of the « Centre Region » all ancient participants at the 1995 to 2003 obligatory training sessions.

⁴ ...but the environmental diversity of the « Centre Region », where the survey has been made, may explain this result...

⁵ GINET (P) 1989, « Contribution à la mise en place de l'observatoire de la qualité des sols dans le département du Nord », Université des Sciences et Technologies de Lille, Chambre d'Agriculture du Nord, 150p.

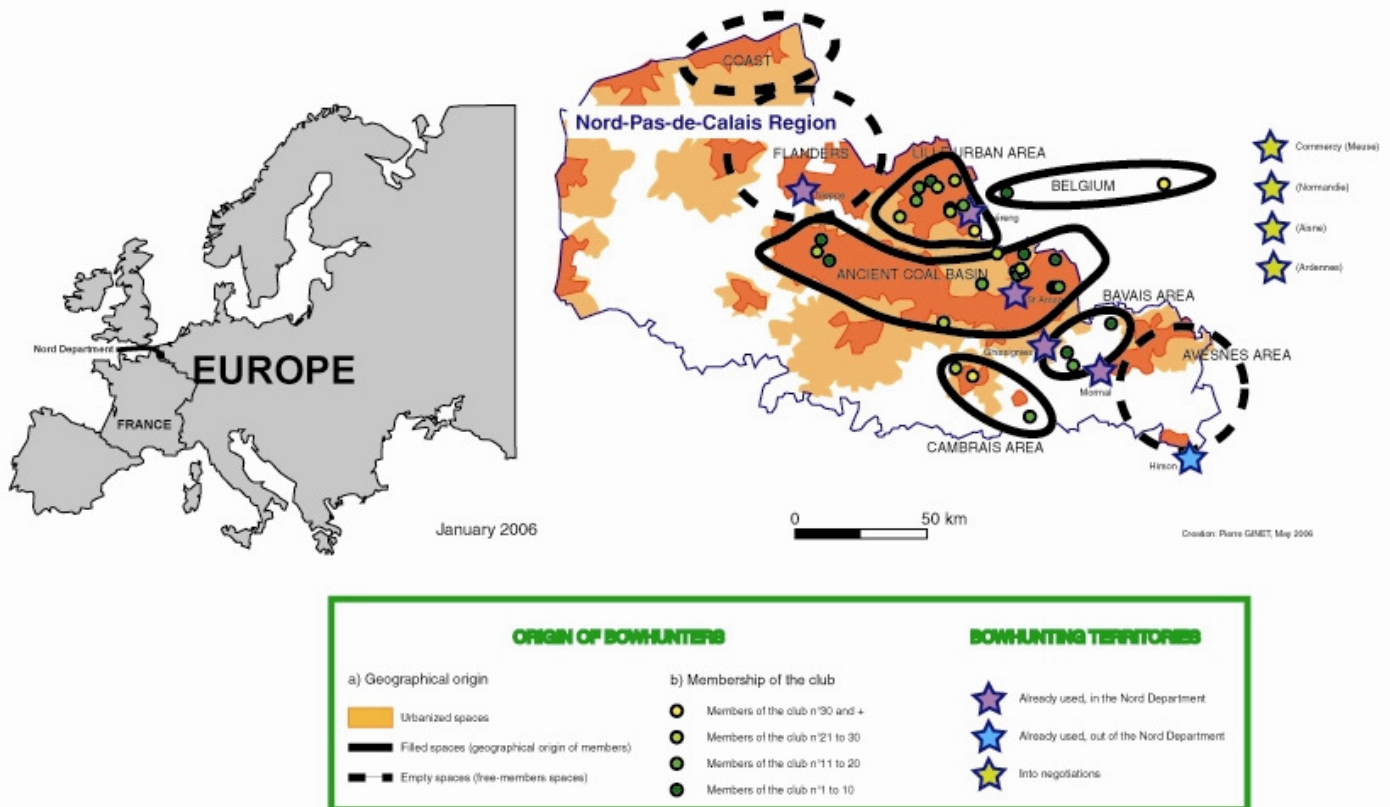
⁶ According to the Bird Protection League, 200 million lead shot (18 tons), are therefore scattered each year in the Camargue area.

The 5 April 2001, a report of a working party appointed by the French Ministry of planning suggested a substitution for lead shot by other substances like steel, glass or wolfram carbide. But such a hurried substitution was too much expensive for hunters (new barrels are required, high price of new ammunitions). That is why the success of this project is still limited out of humid areas, only territories now entirely sheltered from this scourge¹...

The bow could be an alternative to lead shot use. Usable both for big game (wild boar, dear, roebuck) and small European game, each shoot arrow can be identified. The law requires each bowhunter to write with ineffaceable ink his hunting permit number on each arrow carried on the hunting ground². Arrows don't contain any environmental noxious component and are moreover recovered after each shoot. They are aluminium or carbon made and sometimes wood made, then biodegradable. Blades are steel made. In any case, the number of arrows shot by each hunter is very slight, like the number of lost arrows. Arrows marking and specific hunting ethic forbid bowhunters risky shooting.

Taking rate is moreover very smaller with a bow than with a gun. Bowhunter shoots seldom and wounds rarely³. An average of 11 hunting days is required for the capture of a wild boar, 19 for a roebuck! The Coypu is easier to be hunted, the average rate is 1,41 animal a day⁴.

BOWHUNTERS ASSOCIATION OF THE NORD DEPARTMENT (FRANCE) Association affiliated to the French Bowhunters Federation



4.2 The exemplary case of the anti-coypu poison pollution.

¹ The 4 April 2002, French Ministry of environment officially announced the ban on lead for hunting in humid and coastal areas from 2005.

² GRAS (Philippe), BARBIER (Luc) 1996, « Manuel de la chasse à l'arc », Editions du Gerfaut, Office National de la Chasse, 80p.

³ CHASTE (Daniel), CHAPTAL (Frédéric) 1996, « Le monde de la chasse à l'arc », Editions du Gerfaut, 277p.

⁴ Statistical survey FFCA 2003.

Coypu, which came from South America, has been introduced in France at the beginning of the XXth Century for his fur. If nutria is nowadays old-fashioned, coypu is now present on the whole French territory. Without any natural predator, it is now regarded as vermin.

This big herbivorous rodent attacks cultivations and eat every day a third of its weight in vegetable form. Aquatic mammal, it digs 3 to 4 meters long tunnels in rivers banks. This last threatens banks, hydraulic structures and roads of falling down. Coypu is at last a leptospirosis vector, infectious disease owing to bacterium located in the urine of this rodent. This bacterium can survive several weeks in water or near a river (picnic sites, amusement parks, fishing areas, etc.). 534 cases of leptospirosis have been registered in 2000. Among the 127 cases registered by the National Institute of Health Watch¹ between July 2000 and February 2001, 105 were relatives to a hospitalisation. 23 concerned a resuscitation service. And 5 persons died.

Facing human risks owing to the coypu, massive poison use has become nowadays the main meaning for its growth control.

The Ministry of Agriculture, Ecology and Health has legalized, with the 8th July 2003 Ministerial order, the use of two anticoagulants (bromadiolone and chlorophacinone), for the struggle against coypu and muskrat². These poisons, previously used for several years, had however been forbidden in 2002.

Before this date, several tons of poisonous bait was spread each year in France, causing important collateral damages, because of a pollution of the whole trophic chain: in the Aquitaine region, a study³ among a wide number of others, has shown that 10 % of aquatic mammals (European mink, otter), caught for studies or found dead, presented a bromadiolone or chlorophacinone intoxication.

Consumption of poisoned game presents a serious risk for the human health, as no picked up game corpses in state of decay in nature does. Legalization of poisons is a short-sighted (electoral?) view about sustainable countryside management. This re-establishment opposes to the European order « Habitats »⁴, which condemns poisons as non-selective meaning of faun control. The Government, with its decision, takes the opposite course to the National Council for Nature Protection⁵ and to the National Council of Hunting and Wildlife⁶.

Alternative ways to poisoning do already exist. Besides trapping, effective but not devoid of undesirable effects (capture of no vermin classified aquatic mammals or capture of domestic animals such cats...), bowhunting has an important role to play.

Selective hunting mode, non-polluting, noiseless, and leisure in full expansion, it finds here an evident role for the community. The Prefect of Indre et Loire proved his understanding of such an interest by his 2003 order, legalizing the proposal of the « Chasseurs à l'Arc de Touraine » association (ASCAT), which demanded an earlier opening up of the hunting time for destruction of coypu and muskrats on the whole department territory, including rivers and private lakes. This initiative could fructuously be extended over the other departments similarly concerned by this plague.

5 – Economic dimension of bowhunting

5.1 Economic inducted driving forces...

The economic strength of the French hunting world, every type of hunting included, is indubitable. It is an economic sector which brings important incomes to State, a big employment supplier, especially for the countryside. The average outlay by hunter⁷ adds up, in 1992, to 1.174€¹ and the hunting sector directly generates, in 1992, 23.348 jobs².

¹ Institut de Veille Sanitaire.

² Article published in the Journal « Le Progrès », 2002 October 11th

³ France Nature Environnement, Fédération Française des Associations de Protection de la Nature et de l'Environnement.

⁴ Directive 92/43/CEE, European Council, 1992 May 21th, about preservation of wildlife settlements - Journal officiel n° L 206 du 22/07/1992 p. 0007 - 0050

⁵ « Conseil National de Protection de la Nature ».

⁶ « Conseil National de la Chasse et de la Faune Sauvage ».

⁷ Fédérations des associations des chasseurs d'Europe, 1995, values converted into euros.

Within the whole hunting world, a specific bowhunting economic sector can be individualized. In full expansion, it concerns both basic equipment like bows and arrows and the huge range of accessories (camouflage clothes, training targets, tree stands, sharpener...). The United-States are as well ahead of France. We can put a figure to this economy.

Each January, the United-States welcome the biggest exhibition specialized in the field of bowhunting in the world: the AMO Show. The AMO³ (incorporated into the ATA⁴ en 2003) is the world biggest producers and retailers archery group, founded in 1954 for the United-States then worldwide diffusion of their products.

It takes place in a city located in the core of the USA in order to make the access easier for the largest number of retailers of archery equipment.

The city of Indianapolis⁵ welcomed in 2002, 1.200 exhibitors, more than 10.000 visitors including 3.000 professionals on 120.000 m². Bowhunting in the USA represents 13,5 billions dollars (equipment sales) and almost 400.000 jobs. This figure is increasing. In the USA, 75% of bowhunters use a "mechanism bow" and 95% use arrows made in aluminium. But the demand in carbon arrows explodes: the technological innovation at service of speed up renewal of products in the field of archery in a way.

Techniques used for such materials production are a matter for high technology. Important knowledge is required. For instance, as objects created in the middle of the 1960's, "mechanism bows" or "compounds", easy to be used and then favoured by beginners, are very complex devices in the structure of which are included modern materials and sophisticated know-how. Branches are made with glass fibre, carbon or other synthetic materials. Handles are for the most part aluminium or magnesium made. Adjustments are frequent and are a matter only for the specialist, moreover equipped with specific tools.

Classic bows ("recurves" and "long bows") are not outside this technical permanent improvement. In spite of their simple feature, they are not only wood made, but also contain synthetic material (resins). Their production requires both real personal talent and trade secrets.

Most hunting arrows are aluminium alloy made, material gradually replaced by carbon fibre. Nevertheless, some people would rather shoot arrows made in cedar wood with a classic bow⁶. Each hunter chooses from his experience and means.

Hunting with a bow requires specific camouflage clothes each fitted to definite biotopes. But the choice of an odour mask is in the same way possible in the huge range of gadgets offered by archery retailers... An authentic bowhunting economic channel undoubtedly exists!

40% of French bowhunters devotes each year 150 to 796€ to territories renting. 10% spend more. 54% of investigated bowhunters spend each year more than 150€ for their equipment. Among them, 39% spend from 150 to 460€ per year, and 6% more than 760€⁷. As an example, a Great Plains (trade mark) hunting bow (one piece recurve), made in Texas, was sold in France for almost 850€ in 2004.

The expansion of bowhunting in countryside contributes towards a new development of fallow spaces. A great number of hunting bows producers is hence located in rural areas (Coche, Merlin...).

5.2 ...but an elitist leisure because of feudal soil rights.

¹ Including : dogs : 409€, travel : 287€, hunting fees : 286€, weapons : 134€.

² Including : ONC Authority : 102, ONC Technicians: 101, National Guards : 1.422, Administrations: 373, Hunting fees : 8.250, Weapons : 5.200, Dogs : 4.550, Private Guards : 10.000.

³ Archery Manufacturers and Merchants Organization.

⁴ The Archery Trade Association (ATA) integrate in 2003 the AMO and the BPA (ArrowSport and the Bowhunting Preservation Alliance).

⁵ Tape, Le Chasseur à l'arc Vidéo Magazine n°1, La Compagnie des Rocheuses, Une production LCR, Aubervilliers.

⁶ LECAILLE (Jean-Max), MENU (Jean-Pierre) 1998, « Chasse à l'arc », Editions du Gerfaut, 159p.

⁷ FFCA statistical survey 2003.

In France, hunting law has theoretically been a part of property law since the French Revolution. This general rule is however partly applied. It limits bowhunting development and could even tarnish its image.

Thus 10 July 1964 Verdeille law requires owners of less than 20 to 60 hectares plots of land, to bring them in the territory of a Hunting Village Association¹. Landowners concerned by this law (one third of the whole French territory) are thus dispossessed of their ownership without any compensation. And to cap, landowners against hunting can not forbid it on their own pieces of land!

Other characteristic of French law is that when a landowner makes the decision to rent one piece of land to a farmer (farming lease), he does not lose his hunting right but must only share it with the tenant of his land. However, this last can only use his right on his own. Neither his family nor his relatives can use it, except with a formal agreement of the landowner himself...

Landowners, not only violate legally the property right and confiscate the hunting right, but also define its financial value, according to exclusive market criteria, this last becoming a huge source of profit for them.

This hunting right value, sometimes very high, affects in the end the price of hunting rights every hunter must pay to be authorized to practice his leisure. The balance between supply and demand contributes, in a number of territories, to a decrease of the number of hunting permits available correlated to an increasing value.

It is obvious that these feudal heritages and money selection of hunters, also concerning the world of bowhunting, tarnish its image and reduce its diffusion among the middle classes.

Conclusion : The bowhunter manage to resolve differences between hunting and ecology. His way of hunting, equitable, viable and liveable is, to a large extent, well-matched with the notion of sustainability.

- Equitable (social and economic scope) because bowhunter creates economic development without continual conflicts with the other countryside users (hikers, riders, families with children, picnickers...), who belong as he does, to the urban society.
- Viable (economic and environmental scope) because bowhunter expenditure is not made against nature (lead, poison) but contributes to its better management. Bowhunting doesn't correspond to the exploitation of an inexhaustible natural resource but to a clever management of the countryside (faun, land, forests, urban parks, nature reserves), not as easily possible with traditional hunting.
- Liveable (environmental and social scope) because cynegetic management (of depredators for instance), allowed with a bow, does not expose populations to a risk as important as with a gun (a stray bullet can kill at more than 3.000 meters...). The use of such a weapon, moreover silent, for faun management in high density space (urban peripheries) is so directly possible.

The present analysis of bowhunting shows a very recent activity, with an important development potential, but unfortunately always concerned by malfunctions threatening its durability. Young people are more especially appealed to this way of hunting. This last is moreover an opportunity for the authorities to manage the faun (predators and depredators) less catastrophically than today. But some supplementary recommendations can be made:

- Research: development of reflections about ethic of bowhunting. These reflections already exist (FFCA do have an "Ethic Committee") but the role played by bowhunters in a quick evolution society needs to be consolidated and methodically mediatized.
- Recruitment: development by the FFTA of "field archery" (outside shooting, 3D shooting), best way for initial then continuous training of future bowhunters, and excellent promotion tool towards the youngest. Relationships between FFTA and FFCA must be established.
- Cohesion: reinforcement of the role played by FFCA as a representation of the 12.000 French bowhunters (at least those who do have the special qualification required by the 1995 decree). Only almost 20% of French bowhunters belong to an association affiliated to the FFCA... Individualism is however risky nowadays, even if the majority of bowhunters like better hunting on their own... The question of durability of this rising practice (ecologically justified but still too young and fragile for a plurality of points of vue) is asked. Strength through unity!

¹ In French : Association Communale de Chasse Agréée (ACCA).

- Training: strengthen training of bowhunters with thorough shooting tests and more specialized training in ecology. In return, why not, in recognition of their abilities and usefulness, a reducing of outgoings required for their leisure (exemption from hunting fees, assistance for depredators eradication... when state cut down on poison budget...).
- Social and financial justice: bowhunting practice is regulated by an outdated law, survival of a period coming from before the French Revolution (1789) and which need to be reformed. Because of these "legal injustices", bowhunting remains a leisure reserved for the rich.

Bibliography :

- ARBORIO (A-M), FOURNIER (P) 1999, « L'enquête et ses méthodes : l'observation directe », Nathan Université, Paris
 Arrêté du 7 février 2003 (JO n° 51 du 1 mars 2003 page 3646)
 Arrêté du 15 février 1995 relatif à l'exercice de la chasse à l'arc
 BUCHMANN (Y) 1995, « L'arc et l'homme », Université de Bordeaux I, Mémoire pour le Certificat international d'écologie humaine, 82p
 Cassettes vidéo, Le Chasseur à l'arc Vidéo Magazine n°1, La Compagnie des Rocheuses, Une production LCR, Aubervilliers
 CHARLEZ (A) 1997, « Le droit de chasse, le droit de propriété et l'environnement », Droits de propriété et environnement, Falque et Massenet, Dalloz
 CHASTE (D), CHAPTAL (F) 1996, « Le monde de la chasse à l'arc », Editions du Gerfaut, 277p
 CNERA cervidés-sangliers, Bar-le-Duc, 1999
 COENEN-HUTHER (J) 1995, « Observation participante et théorie sociologique », L'Harmattan, Paris
 COPANS (J) 1998, « L'enquête ethnologique de terrain », Nathan, Paris
 Décret du 13 février 2002 (JO n°39 du 15 février 2002, page 2993)
 DIDRIT (M) 1996, « Le tir à l'arc : Etude socio-ethnographique d'un groupe d'archers de la banlieue parisienne », Université Paris V, Mémoire de Maîtrise d'Anthropologie sociale et culturelle
 Enquête FFCA 2003 (concerne 1.000 chasseurs de la Région Centre ayant assistés de 1995 à 2003 aux sessions de formations obligatoires).
 Extrait de la cassette vidéo Le Chasseur à l'arc Vidéo Magazine n°1, reportage sur l'AMO Show, La Compagnie des Rocheuses, Une production LCR, Aubervilliers
 Fédérations des associations des chasseurs d'Europe, 1995
 GINET (P) 1989, « Contribution à la mise en place de l'observatoire de la qualité des sols dans le département du Nord », Université des Sciences et Technologies de Lille, Chambre d'Agriculture du Nord, 150p
 GRAS (P), BARBIER (L) 1996, « Manuel de la chasse à l'arc », Editions du Gerfaut, Office National de la Chasse, 80p
 GUARDO (G) 1993, « L'arc et la chasse », Montréal, Les éditions de l'homme, 352p
 HAMM (J) 1994, « L'arc indien », Nigel Gauvin éditeur, 180p
 KROEBER (T) 1974, « Ishi », Paris, Plon, coll. Terre humaine, 350p
 LECAILLE (J-M), MENU (J-P) 1998, « Chasse à l'arc », Editions du Gerfaut, 159p
 Le chasseur à l'arc, revue trimestrielle, La compagnie des rocheuses éditeur
 Le Progrès, 11 octobre 2002
 PERETZ (H) 1998, « Les méthodes en sociologie, l'observation », La découverte, Paris, 129p
 THOMPSON (M), 1879, «The Witchery of Archery »