Like skiing and ice-skating, the bobsleigh, luge and skeleton, or more generally, the bobsleigh, can be traced back to utilitarian uses of locomotion. The first sleighs were made by man prior to the invention of the wheel to enable the transport of heavy loads, and not only in snowy regions. The Egyptians also used this procedure, without skates, to enable the movement of stone blocks for the building of pyramids. In the Middle Ages the luge was frequently used recreationally. Nevertheless, at the end of the 19th century, the sports of machines began to really develop, thanks mainly to the existence of winter sports resorts. The British were predominantly at the root of this movement, and then the alpine countries took over the continued development of these sports.

Introduction and use of sleighs

The first sleighs: a utilitarian vocation
In prehistoric times, apparently the first Scandinavian machines were developed from a hull of boat adapted to firm ground. The "pulken" of the Lapps, which are pulled by a reindeer and outfitted with one single skate bear a striking resemblance to this device. Different types of sleighs were used throughout Europe, but it seemed difficult to place the exact origins. In 800 AD, the sagas mentioned the use of luges by the Vikings in the area of Oslo. In Western Europe and particularly in the Vosges mountains, the "schlittes" (from the German "schlitten", or sleigh) with two skates were used by the loggers to transport wood or hay on hilly regions, in winter as well as in summer. As an aside, this type of sleigh is still used today, particularly in the region of Madeira.

The Luge: a new type of amusement
The luge did not always have a strictly utilitarian vocation. In the Middle Ages, it was commonly used as for fun. The city archives all continually mention strict regulation in their use, particularly in the form of tournaments. A figurine of bone representing a toboggan (undoubtedly a toy for children) was found in the 16th century. Numerous texts and stories tell of the pleasures of sledding in Norway (1480) and in Central Europe (Hans Sachs in 1520), particularly in the Ore Mountains (Conrad Schwartz in 1552). In the Netherlands, the luge was used on ice and pushed by a skater. The sleighs (or troikas) were also very popular in Europe around 1600. Harnessed to an animal (horse or reindeer), they were high-class luxury objects, replete with many decorations and most commonly reserved for the wealthy classes.

The use of the luge for amusement continued into modern times, particularly in large cities. It was even found in the small artificial snow and ice hills, in St. Petersburg at the end of the 18th century and even in Berlin in the park of the Bellevue Palace in 1844. In the beginnings the sport of luge was practiced in a raised area of the plains and on hills, and then it quickly became popular in mountainous regions, mainly in the areas of the Germanic peoples (Eastern Alps, Bohemia, Saxony,...). Eventually, the luge would become a fixture in those regions and develop into a type of bobsleigh event. In North America, the wheel was unknown before the European conquest. The Indians and the Eskimos used a sleigh called "odoba-gan" (or "otobanask") year-round which rested on one single very large skate, mainly for utilitarian purposes but also for sport. Adapted by the European colonists, it gave birth to the toboggan, a sporty type of North American
luge. In the second part of the 10th century, this practice became very popular among the population, particularly in Canada, and numerous artificial toboggan runs were constructed. The Montreal Toboggan Club was created in 1870, and competitions were organised in the nearby foothills. The pistes were first laid out in fresh snow, and then sprayed with water that would freeze overnight. This practice would also catch on in the USA, and such a piste was constructed sometime later in New Jersey by the Country Essex Toboggan Club.

The beginnings of bobsleigh sports

The first steps: a sport initiated by the British in the winter sports resorts

As with the development of the winter sports resorts in the second half of the 19th century, the British were the first to develop the bobsleigh sports. Around 1850, the luge was used in Switzerland for transport and for children’s amusement, but not yet as a sport. The tourists (predominantly British) were coming to the winter resorts in increasing numbers for their health (sun, pure air and the revitalizing nature of the mountains). Certain tourists thus practiced sports activities, including the luge, which they borrowed from the villagers for their own amusement. Little by little, the pistes became marked by luge tracks, in particular on snowy roads, and a few competitions were organized. John Adington Sysmonds, a British who had been sent to Davos by his doctor for health reasons, took great pleasure in this activity. In 1883 he founded the Davos Toboggan Club and in the same year organised the first international luge competition. This event took place on a 3.2km run between Davos and the village of Klosters and included 21 competitors from seven different nations (Germany, Australia, the USA, Great Britain, the Netherlands, Sweden and Switzerland). Following the success of this first competition, the “Sysmonds Cup” was created in 1885 (as well as the “Freeman’s Trophy” sometime later for women).

Due to the success and popularity of these competitions, in particular with the winter sports enthusiasts, St. Moritz, the main winter resort to rival Davos, would react and develop bobsleigh events in its own fashion. During the winter of 1884/1885, a group of British undertook the construction of an artificial piste known as the Cresta Run. The ice was natural and renewed each year (the installation is still...
in operation today). The first competition was held in 1885 and the St. Moritz Tobogganing Club was founded two years later. That same year (1887), an important event took place that would significantly affect the future of this piste, in particular the overall practice of bobsleigh sports.

Bobsleigh and Skeleton: A North American Tradition

Indeed, the toboggan, of Amerindian origins, was introduced in Switzerland by and American, L.P. Child. This type of luge was a direct outcrop of the skeleton: skates of steel, which added weight and increased speed, replaced the skates of wood: the skeleton was practiced more and more on ice whereas the luge became more appropriate on snow. The toboggan would very quickly find its way to the two main Swiss ski resorts and demonstrate its superiority over the local luge. At Davos, the “Sysmonds Cup” would be won as early as 1888 (and the subsequent two years) by a competitor equipped with this new “machine”. In order to prevent such domination, the two types of luge are separated, a new cup having been created especially for the skeleton, the “Sysmons Shield” (and the “Ladies Bowl” for women). At St. Moritz, Mr. Cornish had the idea to descend the piste of the Cresta Run headfirst in the “Grand National” competition of 1887. Despite the difficulties that he encountered, his technique was adopted and became the standard from 1890 onwards (there had been no precise rules, each competitor could go down the runs, regardless of technique or equipment used): the Cresta Skeleton was born. This event differentiated itself only slightly from the skeleton, with the use of a type of rake at the end of the boots in order to slow down and to steer. It was practiced uniquely on the piste of the Cresta Run (it’s the kind of skeleton which was on the programme of the 1928 and 1948 Winter Olympics at St. Moritz). Women practiced this sport right from the onset. One woman, Ursula Wheble, even went on to win the women’s competition nine times, the first three in seated position and the six others head-first (in 1911, she completed the run in 61 seconds, the first-place male competitor completed the run in 59.6 seconds that same year).

The bobsleigh would arrive at the same period in time, having been imported by American tourist Mr. Stephen Withney in Davos during the winter of 1888/1889. This type of sleigh had already existed for a long time in the United States (it was mentioned in 1839 at Albany, capital of New York State); it had been used for goods transport, in particular wood. It was made up of two toboggans (or two skeletons) held together with bars. The first brake system consisted of a gardener’s rake and the steering was done with cords. Innovations would soon afford this device increased popularity. A steel model was introduced in 1889. In 1903, Mr. Roessinger, from Leysin added a steering wheel and a new foot-controlled braking system which would help guide the bobsleigh. Numerous other inventors would take their turn improving the functionality of the bobsleigh over the years, resulting in a sort of “Formula One” on ice.

The development of the bobsleigh

Alpine Resorts preferred locations

At the turn of the 19th century, the bobsleigh was enjoying a certain level of success, as
much in terms of the practice as of the event: it first became popular in Switzerland and then moved out to the neighboring countries. At St. Moritz, there were certain British tourists who were looking for a piste on which to practice the bobsleigh. They were welcomed into the Tobogganing Club in 1895, but soon the conflicts exploded over the use of the Cresta Run, where the skeleton competitions seemed to be more popular. The bobsledders founded the St. Moritz Bobsled Club in 1897, the first bobsleigh club in the world. In order to tackle the absence of their own piste, they decided to construct another one, with funds from donations of different members. The piste was inaugurated in 1904 (The Olympic Bob Run); it would be the first artificial bobsleigh piste with natural ice (it still accommodates major bobsleigh competitions today). Other artificial pistes would be constructed in turn at Davos (the “Schatzalp” in 1913) and at Chamonix, proving furthermore the popularity of these resorts.

A wealthy clientele drawn into bobsleigh
Before World War One, these sports, in particular the bobsleigh, would become very fashionable among the well-off clientele in the luxurious winter resorts. Very numerous competitions were organised, with rewards in several prize categories. The luge would be developed, but with an aspect of fun and amusement. The bobsleigh would be monopolized by the “sportsmen” who were on the lookout for greater thrills and fame. The good drivers were courted and the races were particularly favored by the high society. Each country had its own cup: The Coupe de France, the Manchester Cup, the Cup of Emperor William II,... the aristocrats were especially fond of the sport, which had become within a few short years a synonym for daring and courage, and reserved for the elite.

A significant female presence
Women have been very well admitted to this sport. In the creation of the first bobsleigh club at St. Moritz, the British organisers, with a certain notion of female emancipation in mind, stipulated in their regulations that each team would have a minimum of two women (out of a total of 5 members per team). Four years later, this ruling would be taken down to a minimum of one female member per team. This ruling would be effective internationally until the 1920s. Nevertheless, there were bobsleigh teams that were exclusively masculine, but also some that were exclusively feminine. The presence of women in the competitions benefited primarily the well-being of the representatives form the alpine countries, in particular their economic interests (it’s important to remember that the British and American clientele were the most valued during that period).

From hobby to competition

The first competitions
The bobsleigh was not the only sport to be developed, even if it appeared to be the most charismatic at that period. In 1913, The International Union of Luge Sports was founded in Dresden by Germany, Austria and Switzerland. From the following year onward, it would organise the first European Championships at Reichenberg, in the kingdom of Bohemia (today Liberec, in the north of the Czech Republic), with nearly 80 competitors. Also in 1914, the first European Skeleton Championships would be held in Davos. However, Germany would be home to the most popular competitions, in particular the Ore Mountains would prove to be the home of the national championships from 1912 onward and then continuing after the war until 1938.

World War One would put the development of all sports to a standstill. Following the conflict, the development and institutionalizing of the sports would pick up again. The FIBT (International Bobsleigh and Tobogganing Federation) is created in Milan, Italy, in 1923. The next year, the bobsleigh would be integrated into the programme of the Winter
Olympic Games in Chamonix. The first World Championships would be held in 1930 in Caux/ Montreux in Switzerland. In luge, the three founding countries would regroup and in 1927 create an International Foundation for Sled Sports, and would later be joined by Poland (where one of the first pistes had been constructed, at Krynica). The second European Championships would be held in 1928 at Schreiberhau in Germany (today Szklarska Poreba in Poland), with a first-time ever female contingent. In 1935, the luge would become part of the FIBT, which would then form a special six-country section (the four above mentioned countries plus Norway and Czechoslovakia).

The progressive exclusion of women
The years between the two World Wars (1918-1939) would see a strong decline in the number of women participating in all bobsleigh sports except the luge. During the 1930’s, the American Athletic Union (AAU) required that all bobsleigh teams be composed of two men and two women. Many women have great success as sleigh drivers. But in 1938, Katherine Dewey would win the AAU national championship much to the dismay of that organization, which decided to prohibit women from participating the following summer. Women had already been prohibited from the Olympic Winter Games and the World Championships since the FIBT had decided to exclude them prior to the first Games in Chamonix in 1924. It would not be until 1995 that the FIBIT organised the first Women’s World Bobsleigh Championships. The Bobsleigh was not the first sport of its kind to exclude female participants. Women were first excluded from the Cresta Run in St. Moritz in 1925. Then, they would be prohibited from practicing four years later following heated debates at the centre of the tobogganing. One of the reasons cited for the interdiction was that the sheer descent down a piste could lead to breast cancer! Women are still not permitted at the Cresta Run, which remains a discipline reserved entirely for men.

The recent development: different trajectories
The Second World War was to signify the origin of a major decline in luge and skeleton, the latter of which had practically disappeared (except for the cresta skeleton at St. Moritz). Indeed, the two countries (Germany and Austria), where the practice of these disciplines was the most widespread, emerged particularly hurt by this conflict.

The competitive luge: a sport that became Olympic
Under the influence of Austria and in particular that of Bert Isatitsch (president of the Austrian Federation and the luge Department of the FIBT), the luge would once again become popular in Central Europe. Starting in 1952, the luge would fight to gain autonomy from the ever powerful bobsleigh. The inclusion of Canada and of the United States in luge events would contribute to this independence. In 1954, the luge on artificial pistes would earn the designation of Olympic Sport following the session of the IOC in Athens, and would replace the skeleton. The first World Championships would then be organised in 1955 in Holmenkollen (Oslo), with 8 nations participating. Two years later, the International Luge Federation (FIL) would be founded in Davos, with delegates from 14 countries, with Bert Isatitsch as president. Finally, in 1959, during the IOC session in Munich the luge would become part of the programme of the 1964 Winter Olympics in Innsbruck.

This sport has had the distinction of being practiced by only a few nations. Three countries represent three-quarters of the World and European Championship finalists: Germany, Austria, and Italy. Germany is by far the strongest in this respect, obtaining 45% of the prizes with the inclusion of the RFA, the RDA and the GER. While the mere fact of the strong luge tradition in this country helps to
account for a large part of Germany’s domination in the sport, other reasons actually contribute to the success. Indeed, during the period of the divided Germany, the two NOCs were in the midst of a fierce Olympic medal rivalry with each other, and the luge was a fitting battleground. Extremely strong investments were made on each side of the Berlin Wall to achieve the Olympic medal goals. Italy’s presence compared to that of the two Germanic forerunners in this sport may have appeared insignificant. In fact, about half of the Italian participants were Northerners, mainly from South Tyrol, a region where German was still spoken and where the majority of the family names were of Germanic origin. This part of Italy had been Austrian before 1919 and the population had remained very close to its traditions, particularly that of the luge.

Generally speaking, the other countries had weak results in the events, but certain among them would put in an effort to reverse that tendency. The sport had been largely underdeveloped for a long time in the United States. The first US Olympic Luge Team consisted of American soldiers who had been stationed in Germany and who had picked up the sport as a recreational activity. With the advent of the 1980 Winter Games at Lake Placid, the means were established to develop the sport. The United States Luge Association was founded in 1978. With aide from sponsors, the budget grew from $48,000 in 1982 to $1.8 million in 1994, thereby enabling the funding of a team of 50 athletes and four levels.

Natural Luge: a regional sport

There exists another discipline but it does not belong to the Olympics: The “Natural” Luge. This represents the unique fact of being totally dominated by two countries, Austria and Italy, who manage to account for 95% of the finalists at the major competitions. These two countries are also home to most of the natural pistes. What can be thought of a sport that is so monopolized? The absence of Germany in the prizes may appear troublesome, especially given that country’s dominance in the sport. And what should be thought of the RDA, such a strong force in the other type of luge (on artificial terrain), and who had never sent even the slightest athlete to participate in the World Championships? It would seem that her absence in the Olympic programme had a crippling effect on the country.

The revival of the skeleton

After having practically been wiped out as a sporting event, the skeleton was reborn in Bavaria in 1967. The “Bavarian Skeleton Club” (BSC) would be founded in Munich in 1969. That same year, the first artificial piste was opened in Königssee in Germany, originally for the luge, and then later for the bobsleigh and the skeleton. The BSC would organise national and international competitions in order to popularize the sport. The 1974 construction of the artificial piste in Igls (Austria) for the 1976 Winter Games in Innsbruck underscored this development. A skeleton race to open the piste consisted of 55 German and Austrian athletes. The Swiss also invested in the sport, with the creation of a club in Zurich in 1976. Skeleton events began being held at the bobsleigh piste in St. Moritz in 1977. The
European Championships (the previous ones dated back to 1914) took place in Igls in 1981, and the World Championships one year later at St. Moritz. The World Cup began in the 1986/87 season, and was not solely dominated by Europe as far as organization was concerned (Calgary in 1988 and Nagano in 1999). The will to integrate into the Olympics was strong, and in order to achieve this goal, the discipline had to exist in 25 countries and on three continents. The Europeans were nevertheless the largest group to participate in the events at the World Cup, in particular the three original bobsleigh countries (Germany, Austria and Switzerland), and then Great Britain and Italy. The North Americans very quickly became interested in the sport, as were the Japanese, especially the women. The relative youth of the skeleton (all the more so due to the recent interest) undoubtedly permitted seeing certain prospects of success. It seemed indeed easier to rise to a high level in this sport than in the sports where the competition was very strong and had a long history. The same countries shared the top places, but this time the spread between them and the others much greater. Austria (only the men), Germany, Canada and Switzerland had the strongest results. Surprisingly, Italy, who had a very strong participation, did not manage to win a single medal. Could this mean an investment in the future, particularly for the 2006 Winter Olympics in Turin?

Rare and Expensive Infrastructures

Before the Winter Olympics in Innsbruck in 1976, the pistes set up for the practice of bobsleigh, luge and skeleton, although artificial, were not refrigerated. This situation posed quite a number of organisational problems, not least the fact that some competitions had to be postponed, or even cancelled (the 4-man bob event at the World Championships in Alpe d’Huez in 1967 had to be cancelled because of a thaw). Artificial refrigeration of the piste makes it possible to combat the weather conditions, at least partially. However, one of the main obstacles to the development of these sports is the prohibitive cost of such infrastructures. An artificial piste is not only excessively expensive to construct, but also to maintain, and poses the problem of how it will be used.

The piste constructed for the Nagano Games cost 9.3 billion Yen (approximately 81 million Euro), and its maintenance costs are estimated 290 million Yen (2.5 million Euro). However, in Japan, there are only 150 athletes involved in these sports, and their use of the piste only brings in a couple of million Yen per year. Therefore Japan has undertaken the organisation of several major international competitions in order to make the maximum use of their piste. Nonetheless, it is very difficult to make infrastructures such as these pay, and to perpetuate their use, particularly outside of Europe, home to the large majority of athletes in these sports.

In conclusion, bobsleigh, luge and skeleton occupy a very particular place in winter sports. They are very specialised sports, requiring expensive infrastructures, and yet, they are marked by the participation of a number of very small countries, in particular islands. The very specific nature of these sports no doubt makes it easier to attain a high level while remaining far from the elite; for example, a bobsleigh team can be constituted of athletes...
from other disciplines such as athletics, whereas this cannot be done in any other ice- or snow-based sport.

The World Push Championships organised in Monaco since 1994 have been characterised for some time by the continuing success of smaller countries, most notably Jamaica, which has won 4 titles (2 men’s and 2 women’s titles). This just goes to show that they already have significant talent, and more regular training on the ice would without a doubt make them considerably more competitive. The amount of time spent training on the ice seems to be a determinant factor, as shown by the excellent results achieved by the French bobsleigh team after the construction of the bobsleigh run at La Plagne. There again, however, there are financial problems; not only the cost of the infrastructures, but also for the equipment, and the cost of training time on the piste.

When one examines the finalists of bobsleigh, luge and skeleton World Cup events since the last Olympics in Nagano in 1998, one can easily see that there is a clear disparity between the different countries that practise these sports. The majority of the best performances are given by countries who specialise strongly in one particular discipline. Germany and the United States are the only countries to be good all-round performers. The Germans have benefited from the reunification of their country, and also from their long years of experience, while the Americans have really thrown themselves into it in preparation for the Salt Lake City Games. The other countries of the elite all have two strong disciplines, with the exception of Italy, which distinguishes itself in luge only. Apart from a few mediocre countries specialising in one (France and Japan) or two disciplines (Lithuania, Great Britain, Russia), the rest of the countries taking part in these competitions are virtually not in the running at all.

In order to further the development of bobsleigh, luge and skeleton, two main phases are necessary. Firstly, aid must be given to countries with limited financial means in order to allow them to train correctly using the proper infrastructures, which, it must be noted, are not growing in number with any remarkable speed. Secondly, the number of events at the Winter Olympics must be increased, a reflection of the growing interest of many countries. This is the direction that the FIL wishes to take, by adding to the programme of the Turin Games for 2006 a luge event on a natural run, as well as a team luge event on the artificial track (consisting of one man, one woman, and a double). A 4-woman bobsleigh event could also be added to the programme.
Bobsleigh, luge and skeleton: From alpine traditions to specialist strategies

NOCs affiliated with IF of bobsleigh sports: a more complete internationalisation for the FIBT, but still fairly limited

NOCs participating in international bobsleigh events: a fairly large spectrum

NOCs’ finalists: few medalists and over specialisations

A very large variation in the levels of development

Bobsleigh, luge and skeleton in 2002