

TOMASZ SAMOŻUK

# The Last Bison



TOMASZ SAMOŻUK

# The Last Bison



Mammal Research Institute Polish Academy of Sciences  
Białowieża 2009

The last bison  
Written and illustrated by: Tomasz Samojlik

Copyright © by Mammal Research Institute of the Polish Academy of Sciences, 2009  
Copyright © by Tomasz Samojlik 2009  
All rights reserved

Published by:  
Mammal Research Institute Polish Academy of Sciences  
ul. Waszkiewicza 1c  
17-230 Białowieża  
[www.zbs.bialowieza.pl](http://www.zbs.bialowieza.pl)

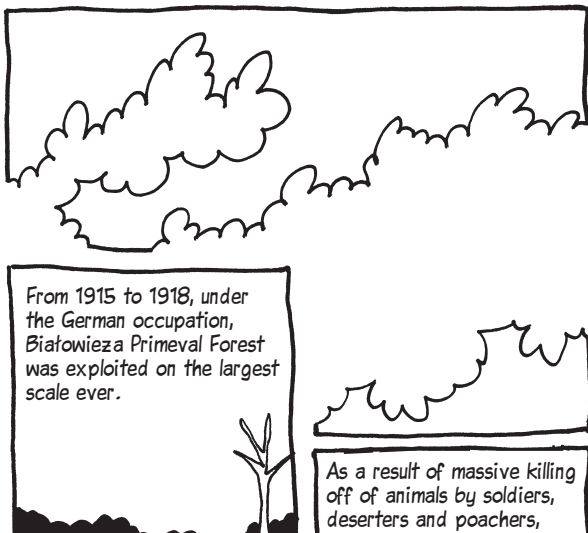


The book published by the Mammal Research institute PAS as a part of the project  
„Bison Land - European Bison Conservation in Białowieża Forest”, co-financed  
by the European Commission as a part of the LIFE Nature Program,  
and by the Frankfurt Zoological Society - Help for threatened wildlife.

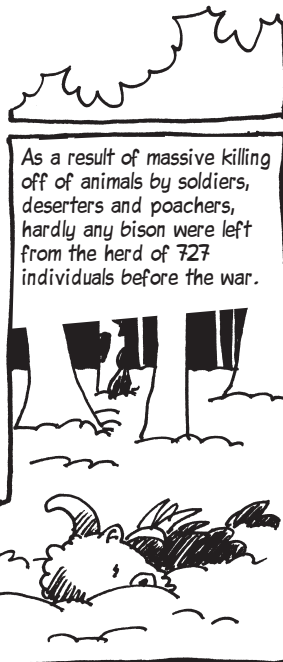
The 1st World War brought a lot of evil and suffering to inhabitants of Białowieża and its vicinity. In 1915, withdrawing Russian troops adopted tactics of burnt land.



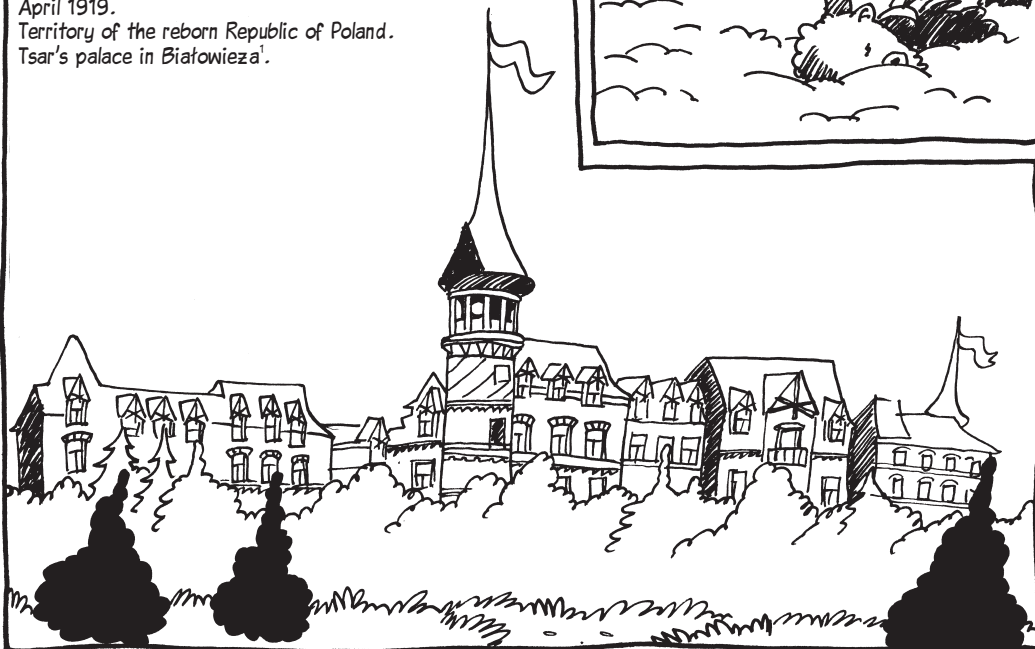
From 1915 to 1918, under the German occupation, Białowieża Primeval Forest was exploited on the largest scale ever.



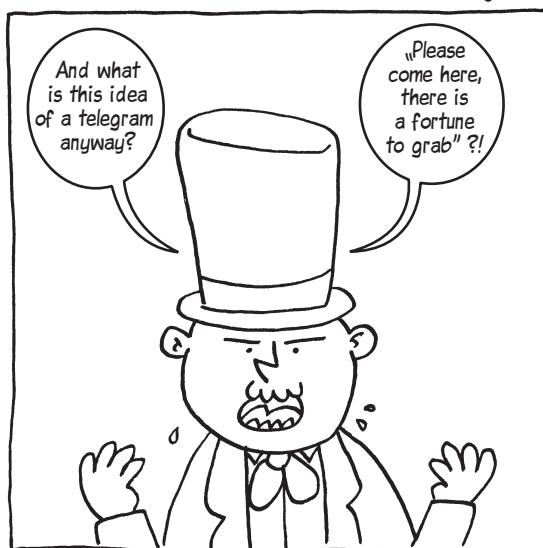
As a result of massive killing off of animals by soldiers, deserters and poachers, hardly any bison were left from the herd of 727 individuals before the war.



April 1919.  
Territory of the reborn Republic of Poland.  
Tsar's palace in Białowieża<sup>1</sup>.

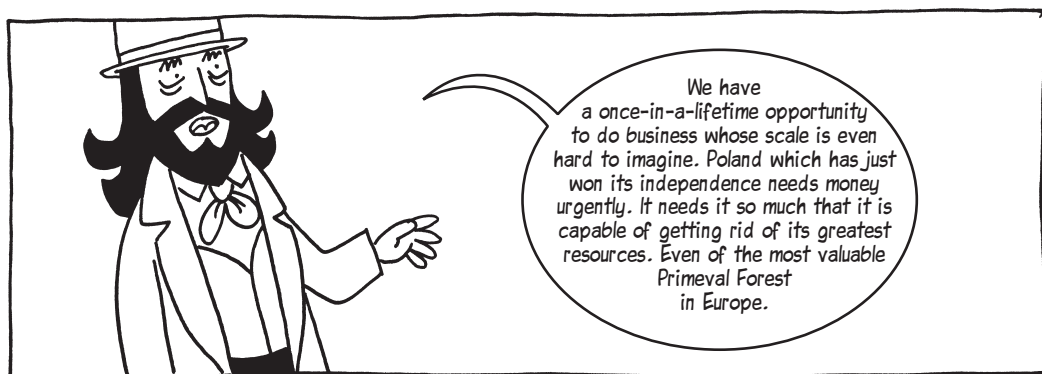


<sup>1</sup> Explanations for footnotes marked with numbers can be found at the back of the book.

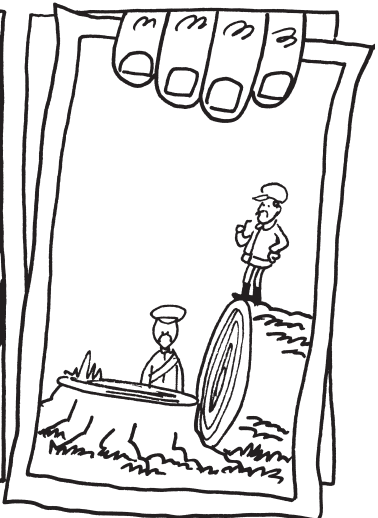
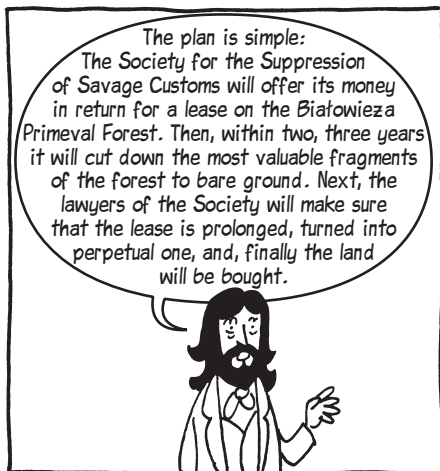


\* This was also the name of Joseph Conrad's „Heart of Darkness” protagonist, one of the most notorious ones on the list of 50 worst villains in literature.

\*\*Similar was the name of the evil-to-the-core villain of Charles Dickens' „Oliver Twist”.





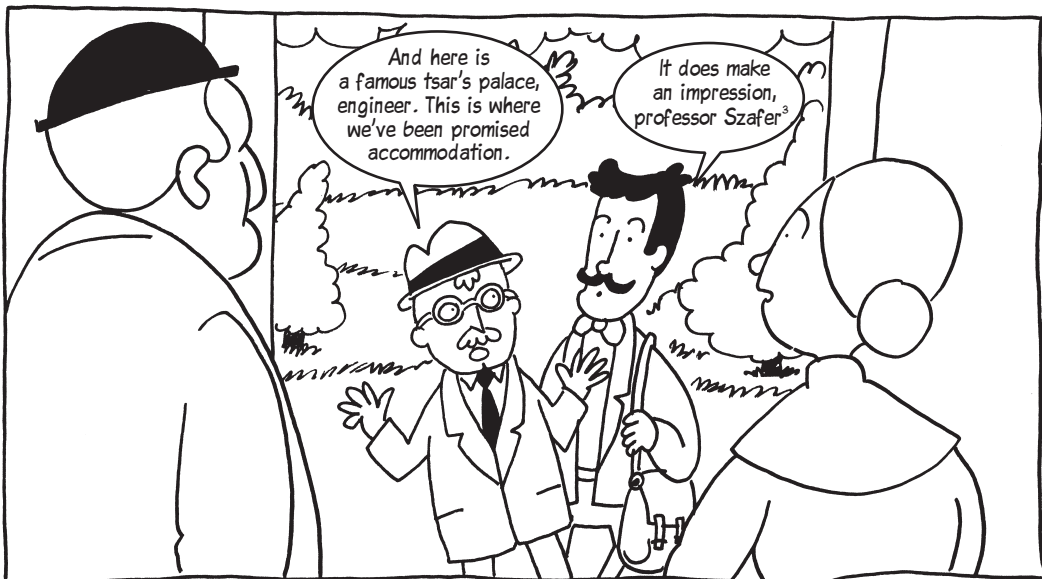
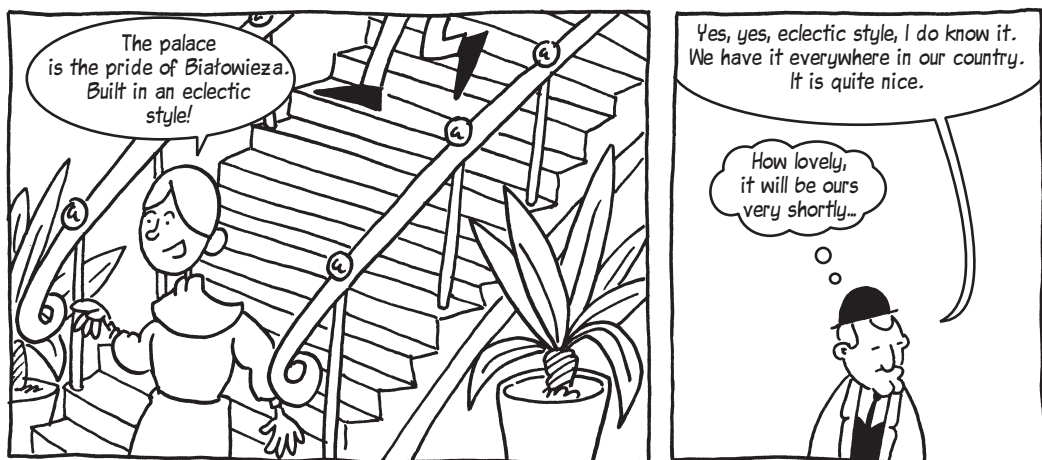


But there is one, small problem: the Polish government will not permit us to take over the Białowieża Primeval Forest as long as it is inhabited by this European buffalo of theirs.

Admittedly, there is only one bison left, but it seems to be a strangely important one. If the bison disappears from here, there will be no obstacles to our actions whatsoever.

There is only one question left then:







This Bill...  
He's like a guy who  
comes up from the gutter.  
Do you trust him,  
Mr Kurtz?

Listen, Woland.  
I once hunted in India with  
captain Farragut. The captain  
shot accurately, so did I, we  
brought the game down in hundreds.  
The natives, the savages with no hope  
of becoming civilized, threw those  
spears of theirs and shot with  
poisoned arrows, which we  
found somewhat amusing.

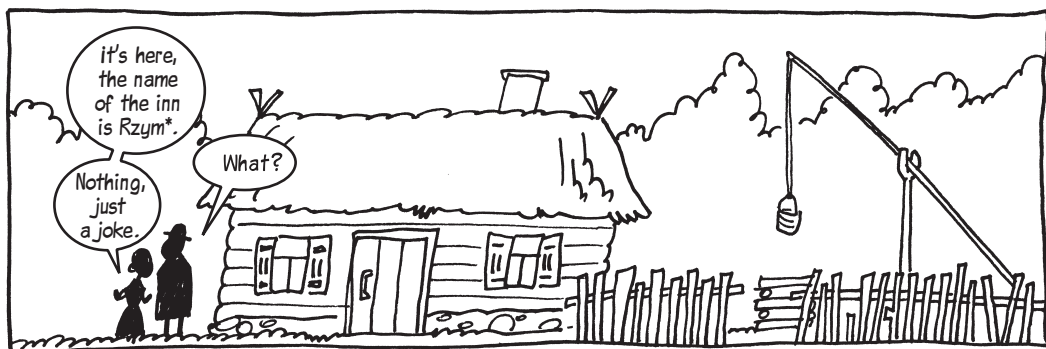
Suddenly, a tiger  
appeared. Shere Khan! shouted  
the natives when he attacked.  
The captain missed, I hit it, but  
to no effect. The natives shot with  
their arrows - one hit the tiger and  
brought it down on the spot.  
The second arrow hit me. On  
my buttock.

Everybody  
was frozen to the spot.  
I was to die within  
a minute. Just then  
Bill saved my life.

How?

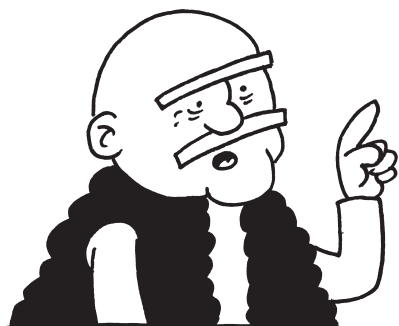
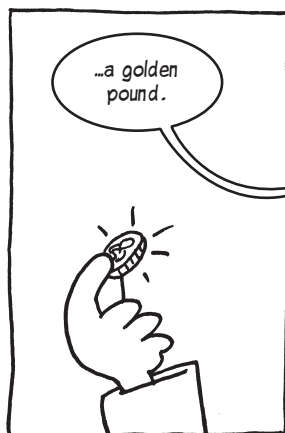
By sucking  
out the poison. Now,  
are you asking me  
if I trust him?

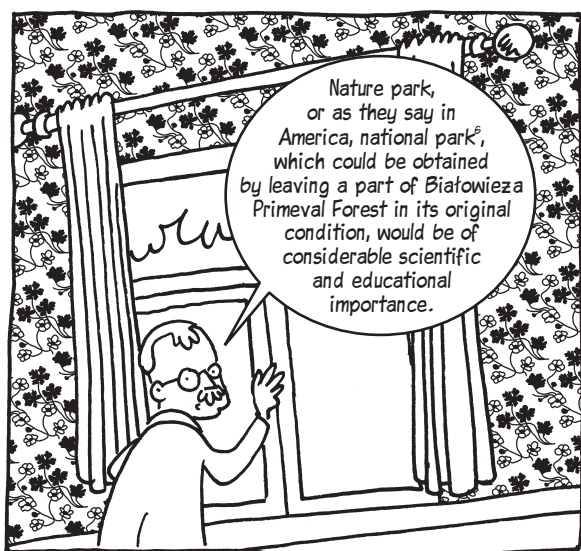
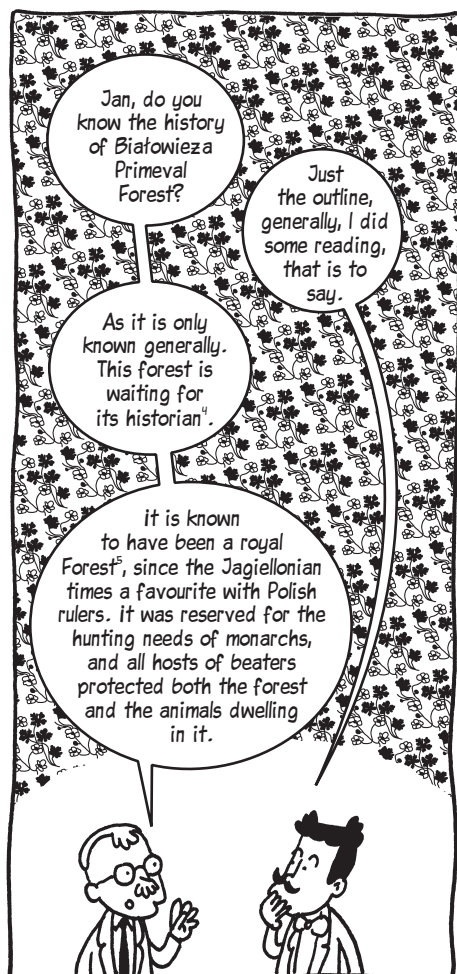


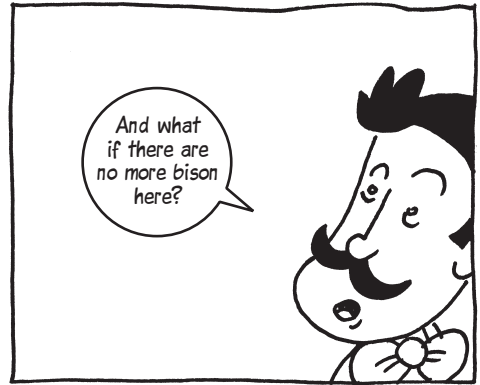


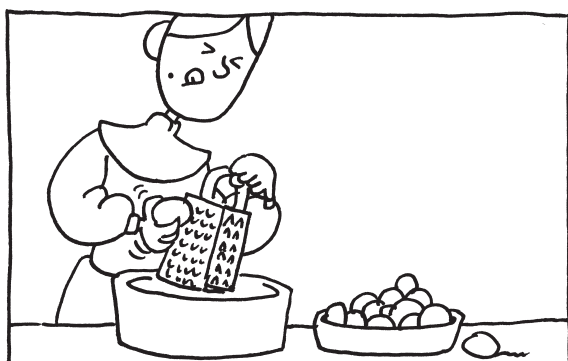
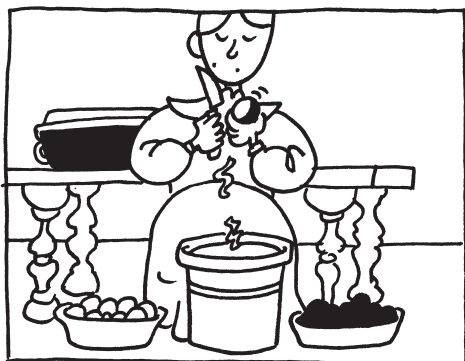


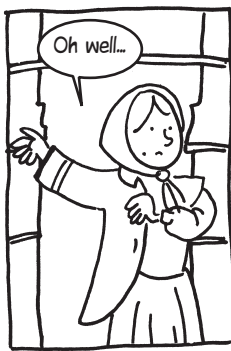
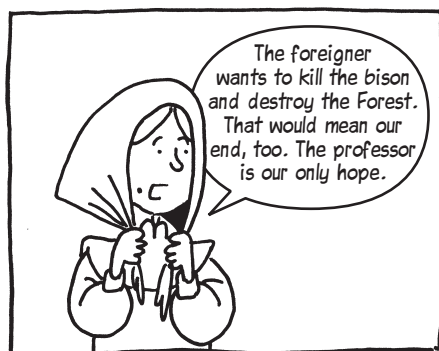
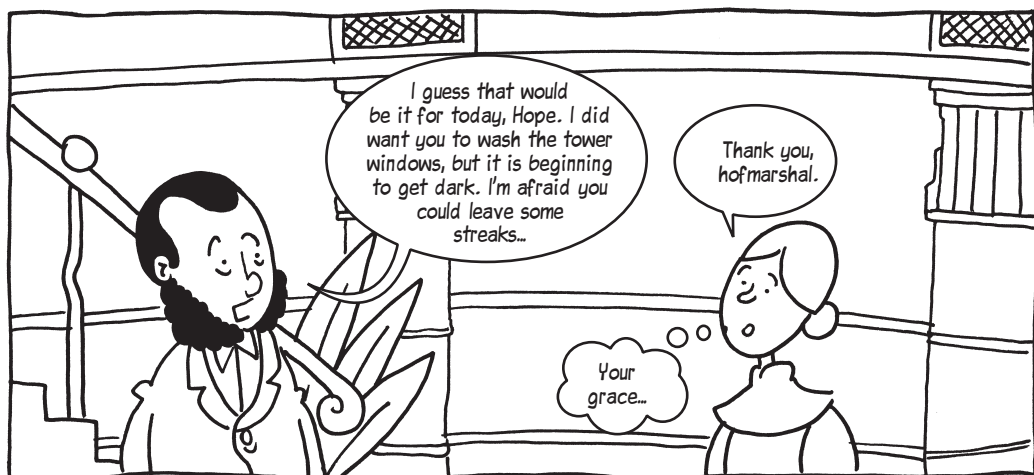
I've heard that in this Forest there are still animals living called bison. I'm very curious about it - I would also like to see it, or better - get its head. Would any of you gentlemen undertake to hunt it?

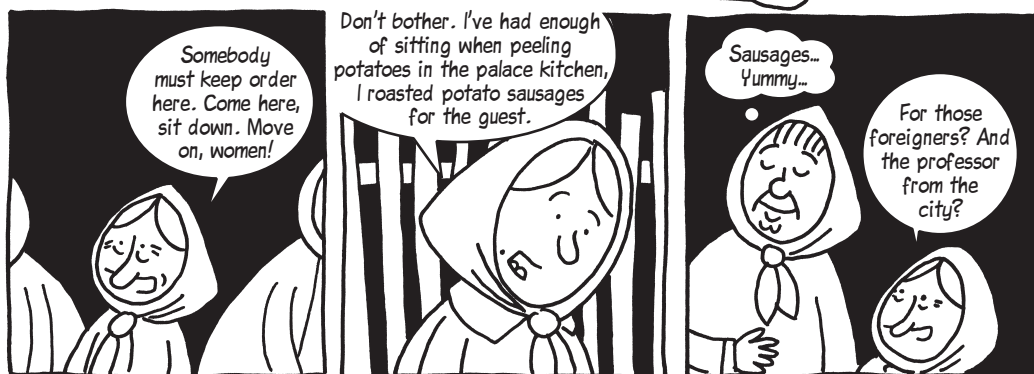
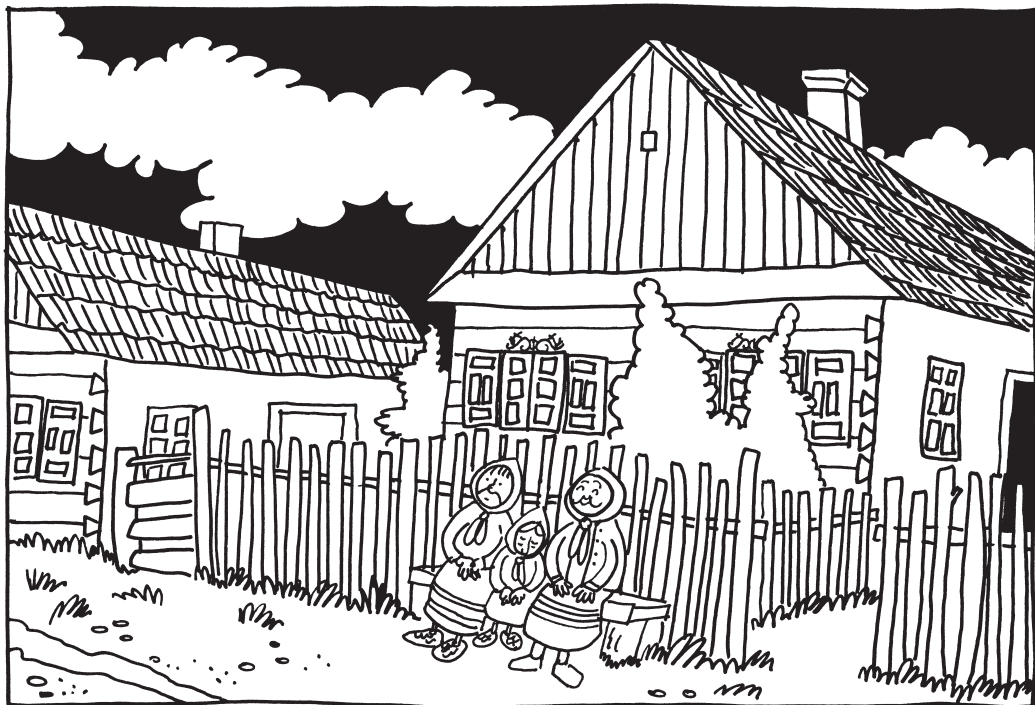


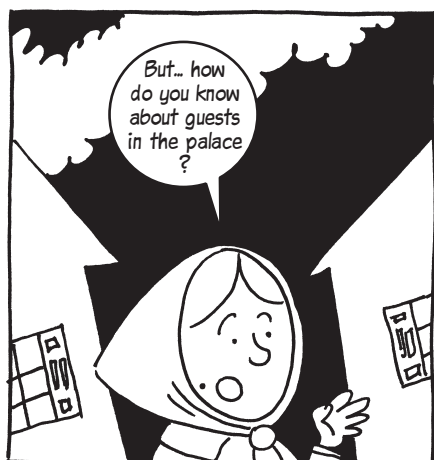


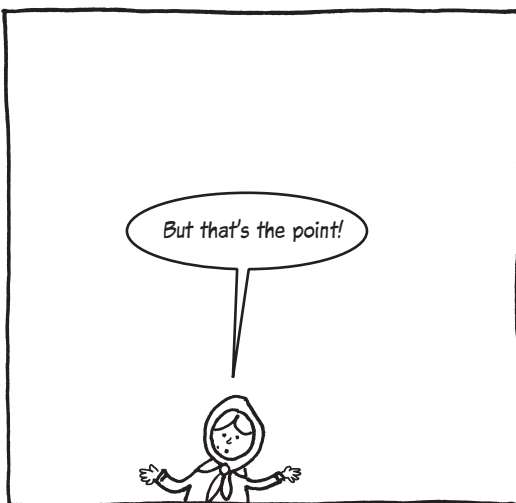


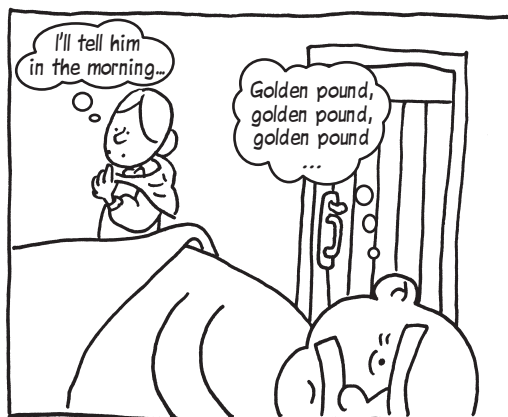




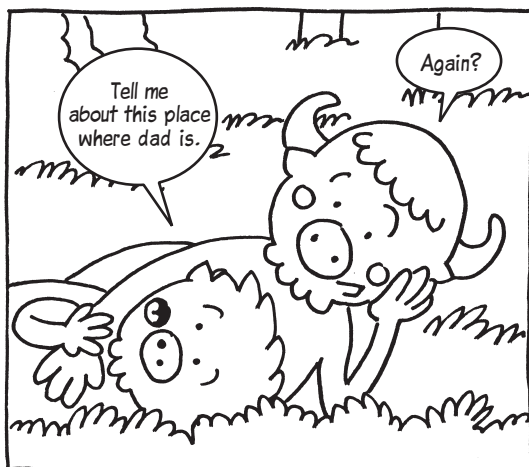
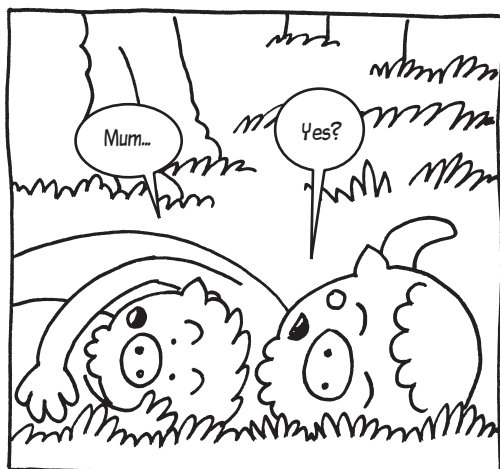


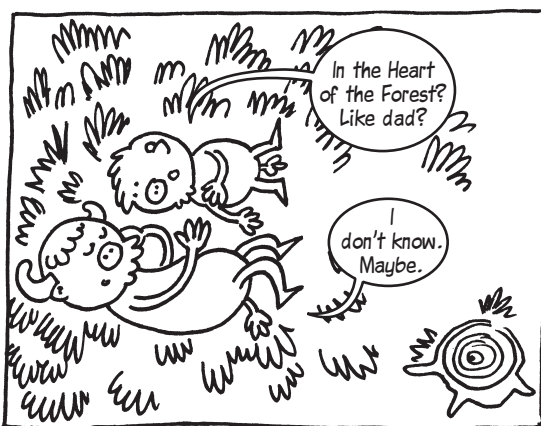
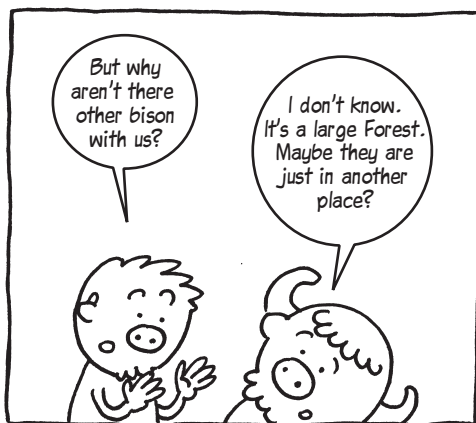
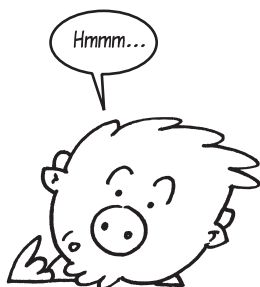


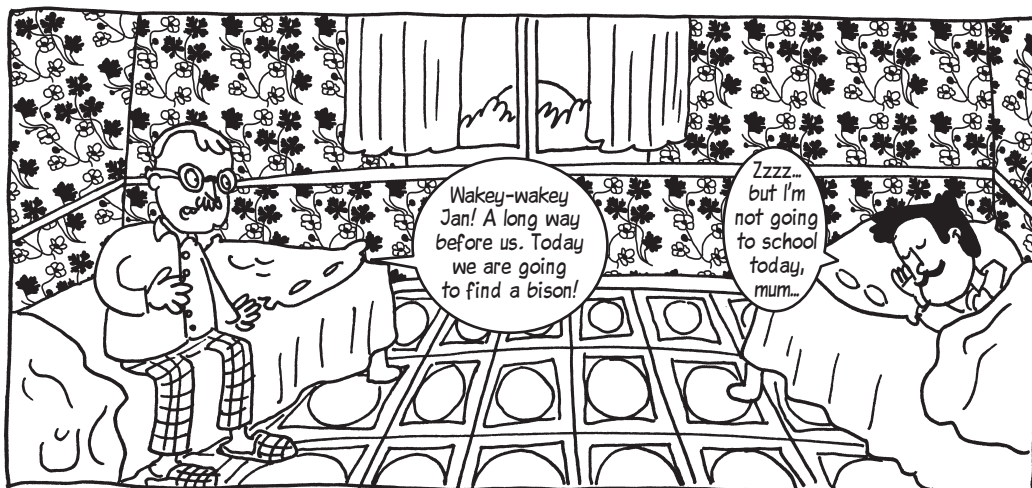


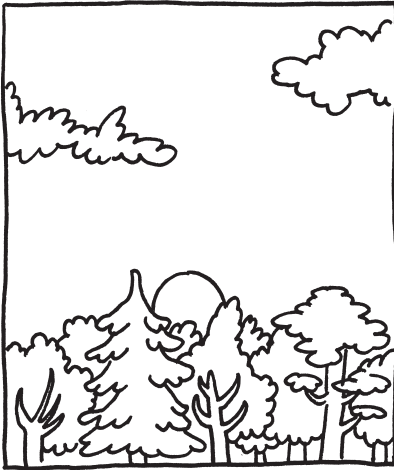


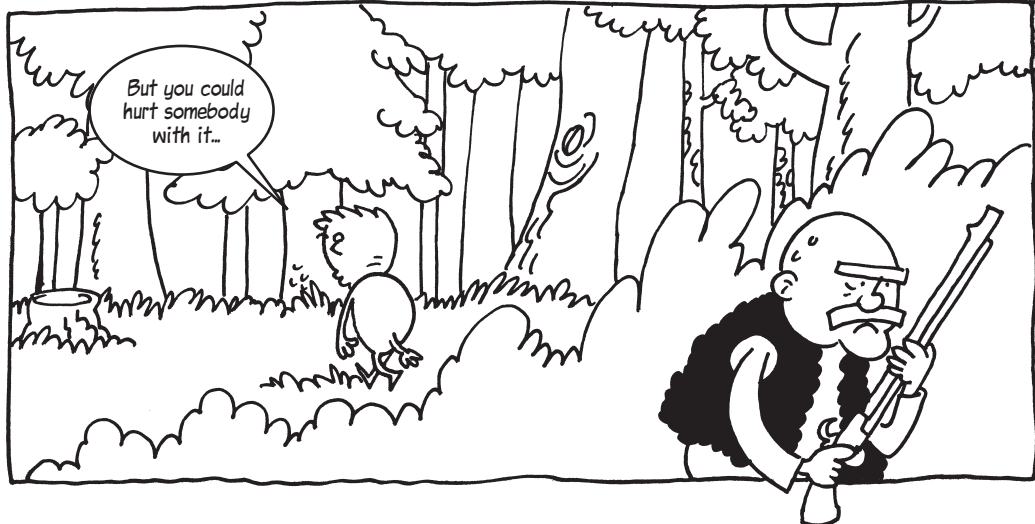
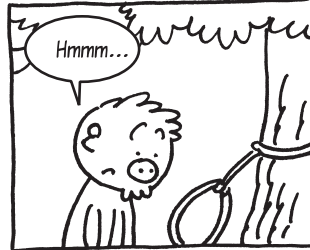
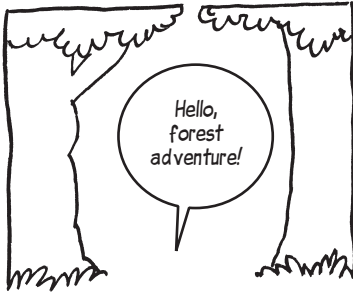




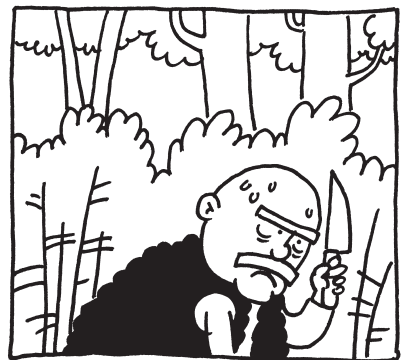


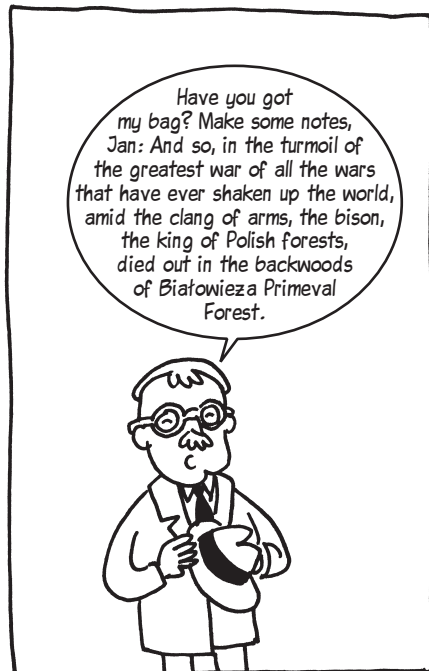
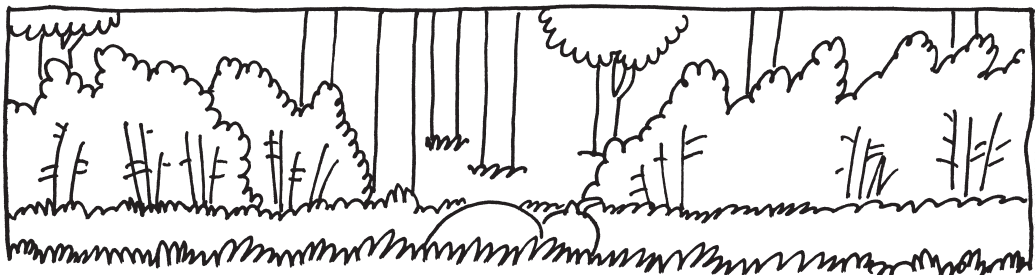
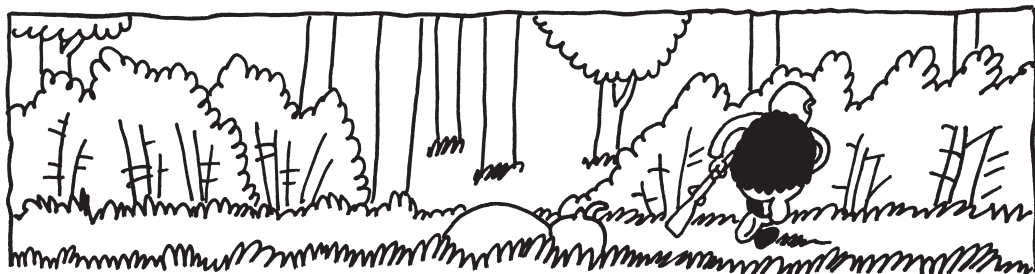






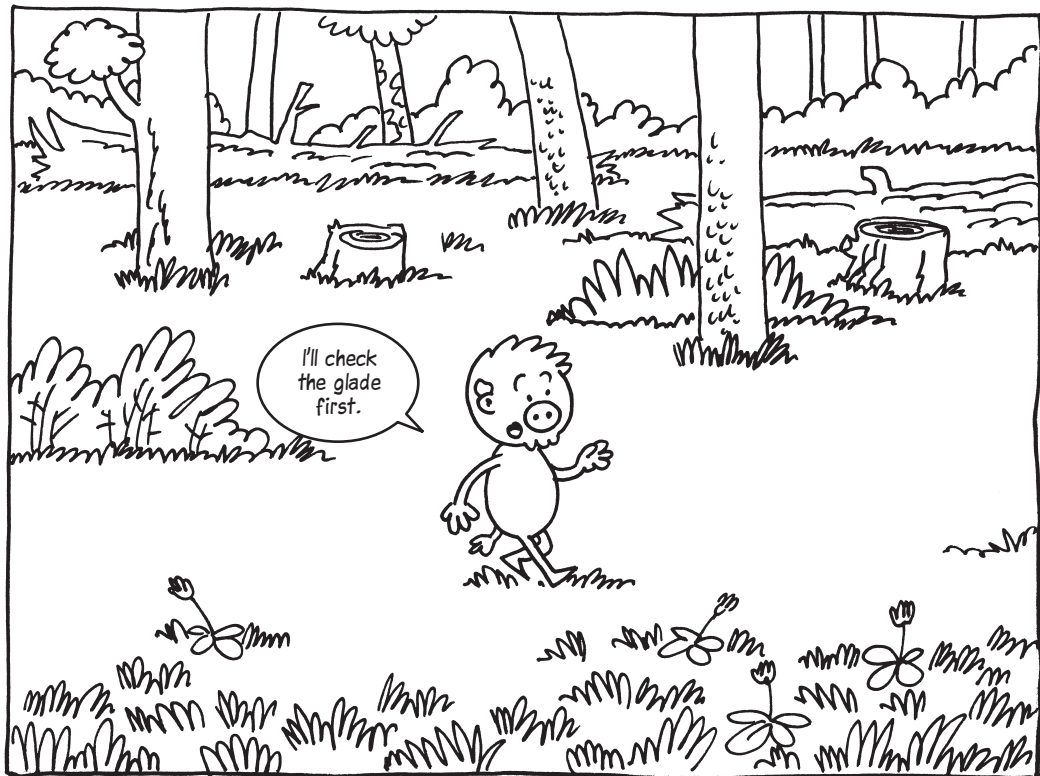
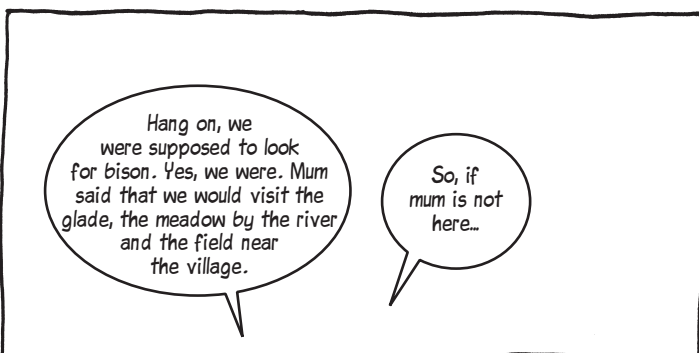
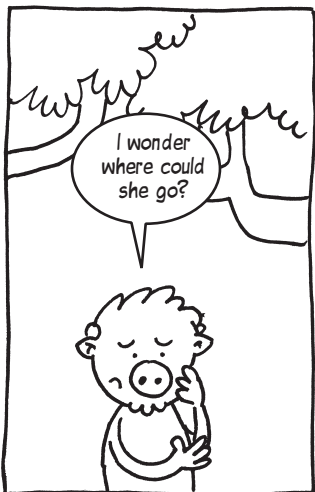


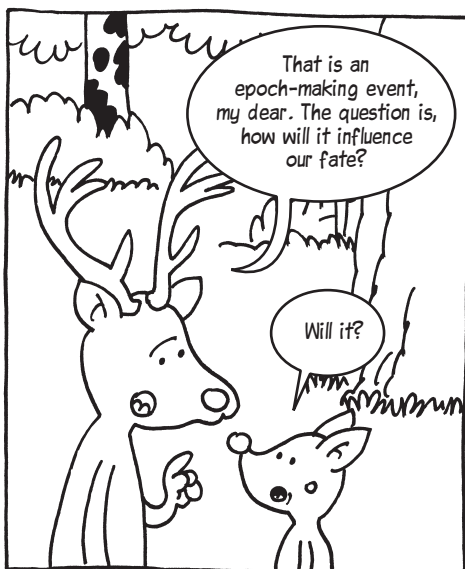




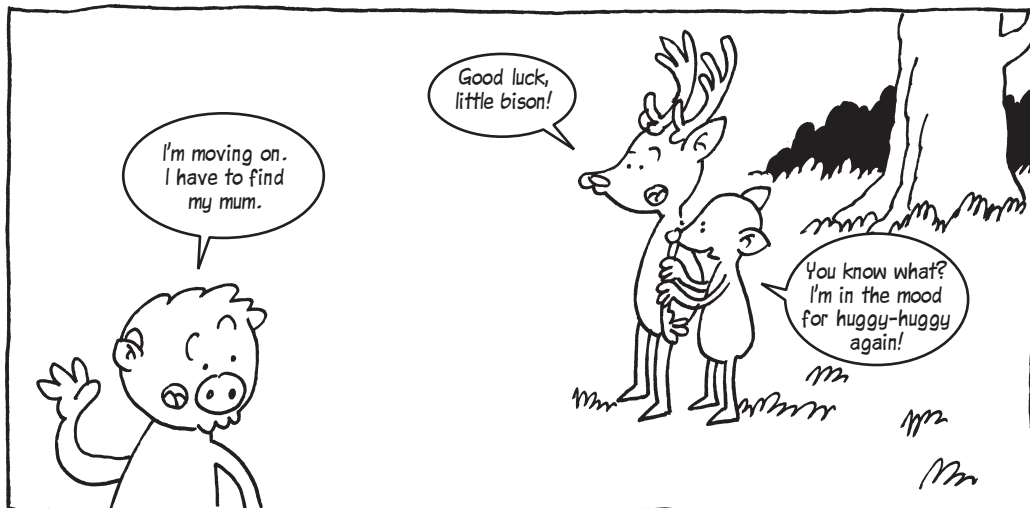
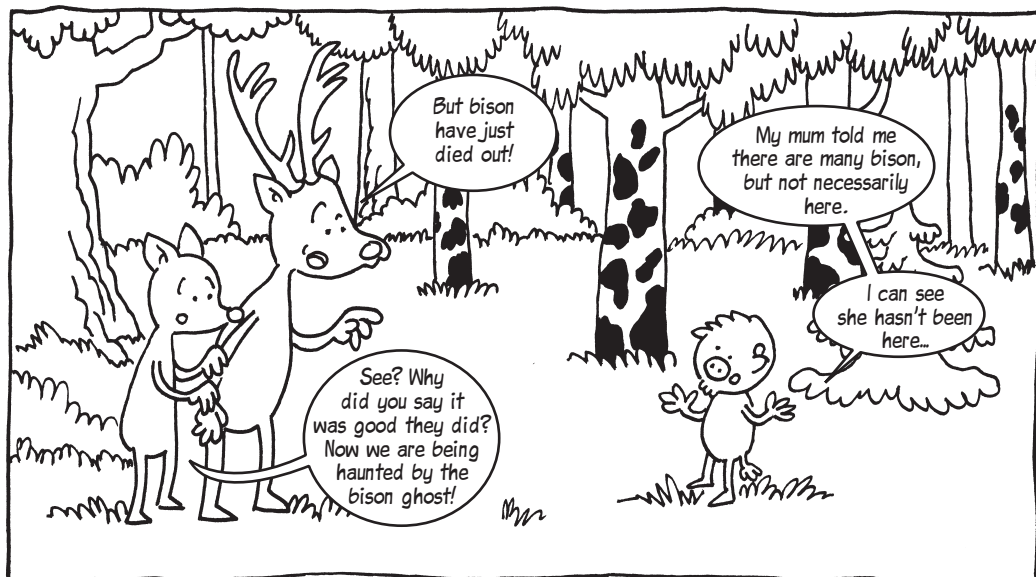




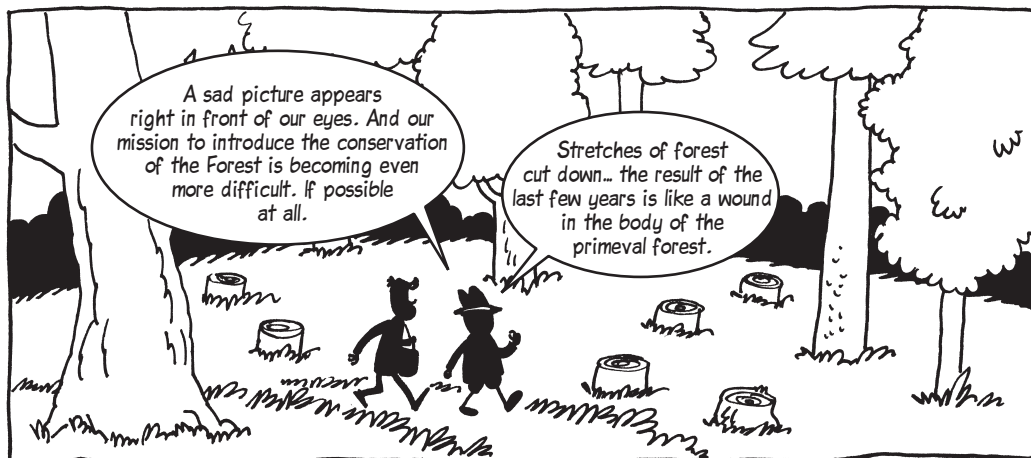
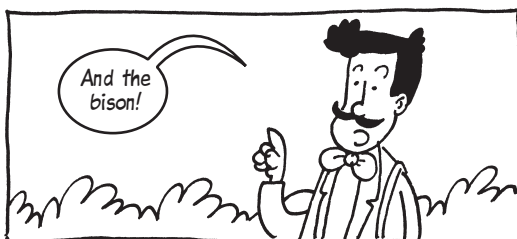
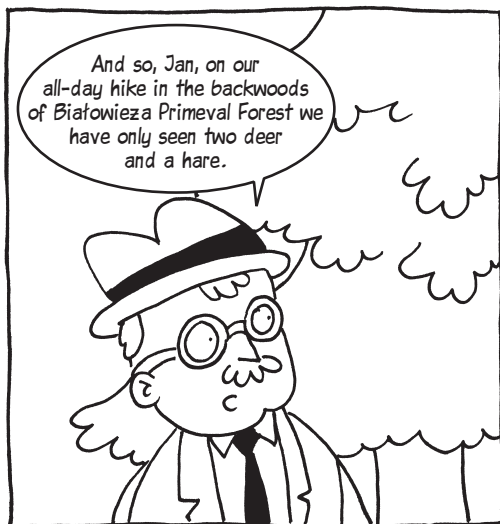


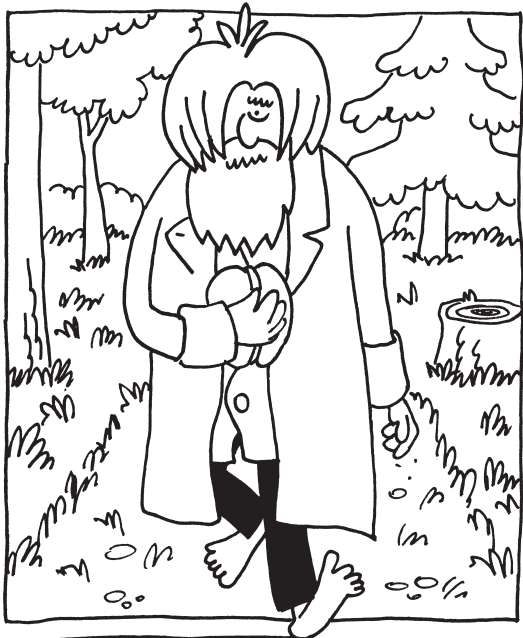


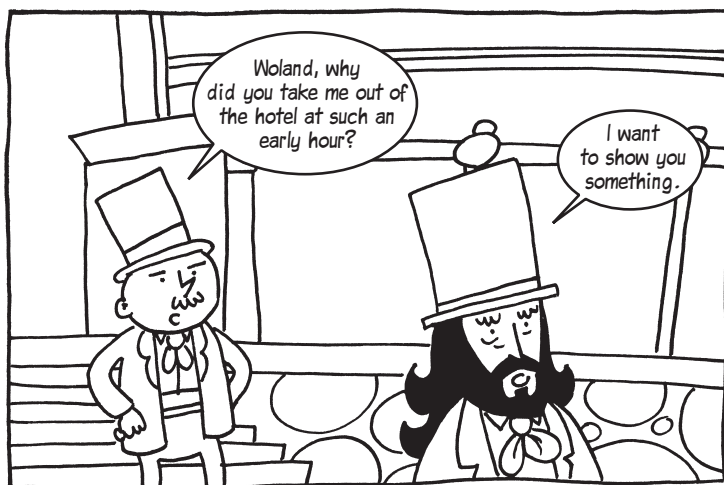


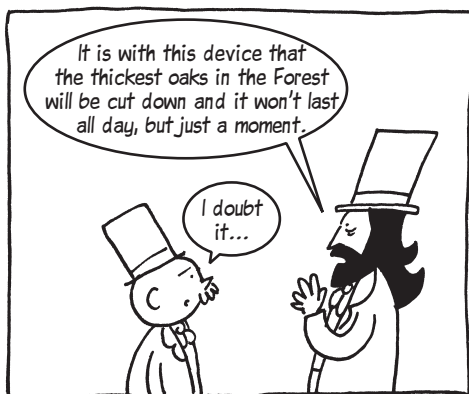
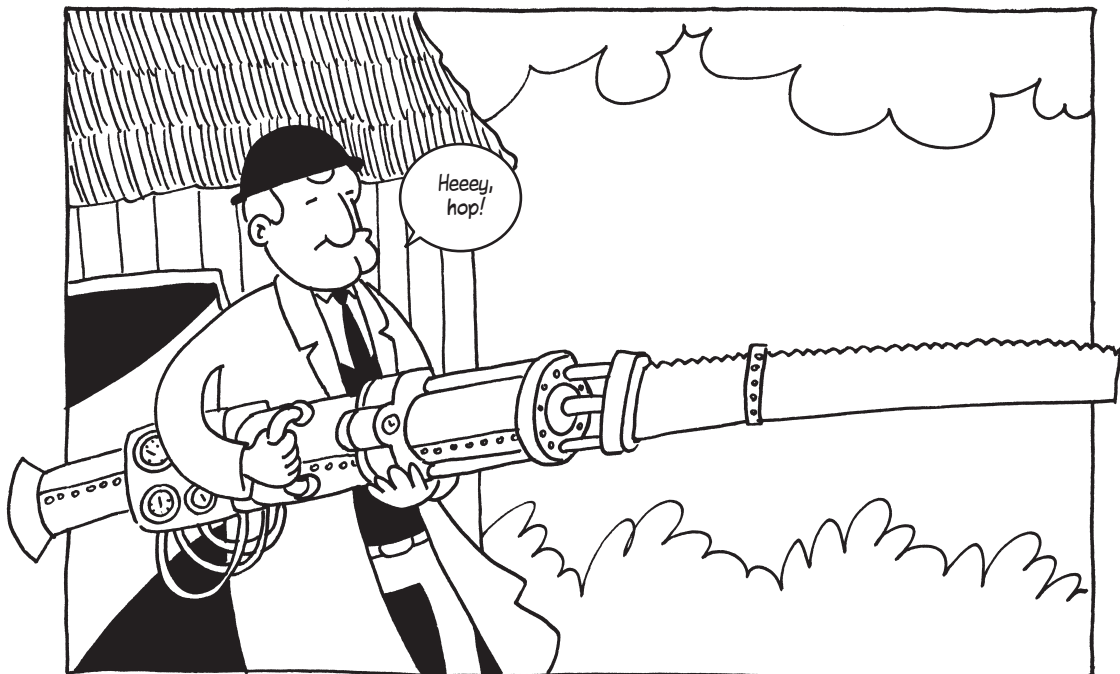


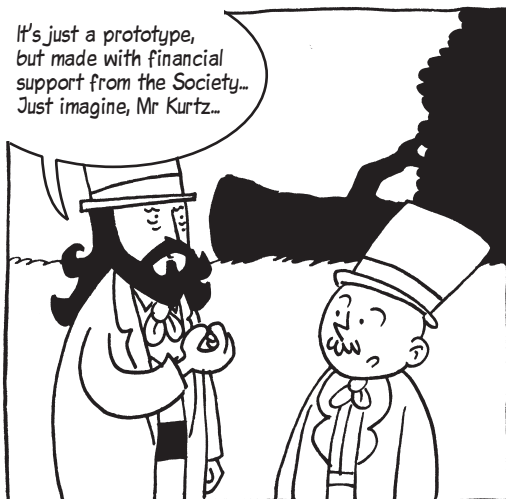
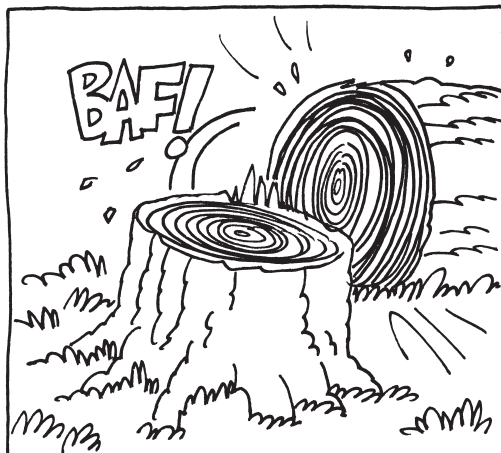
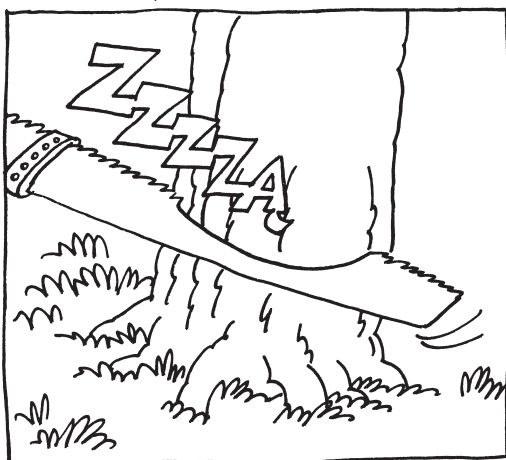
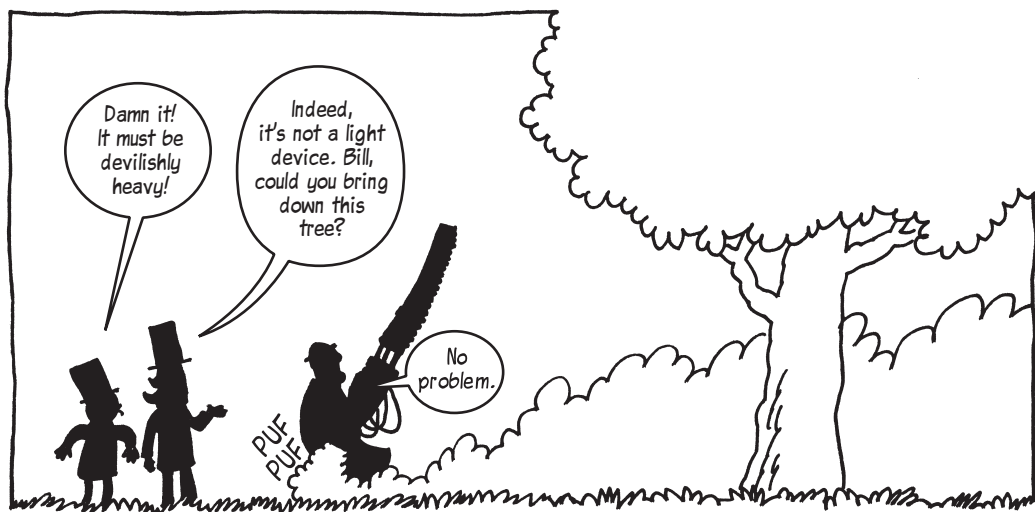


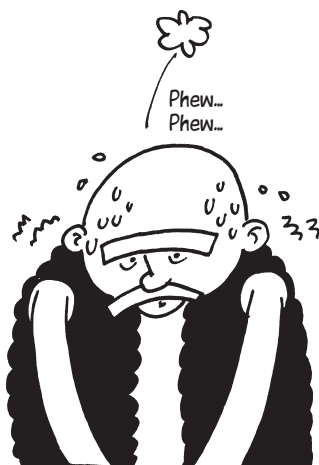
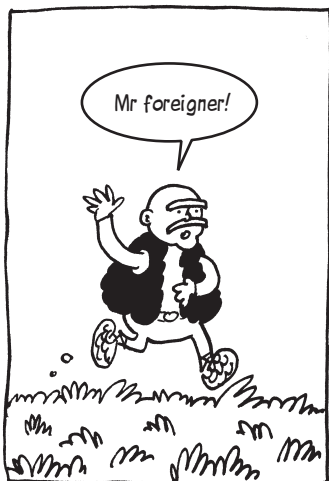
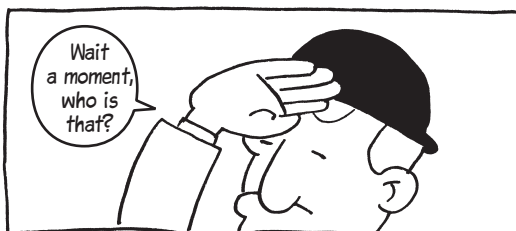
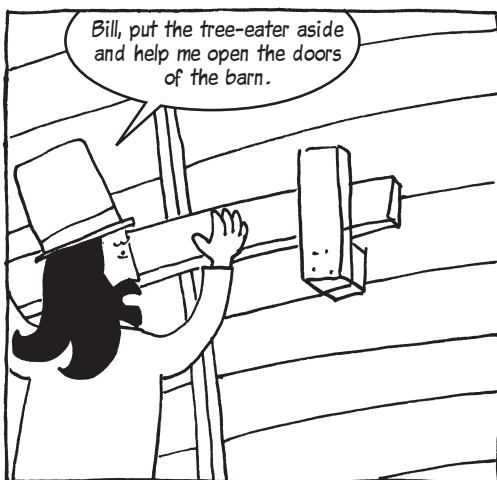


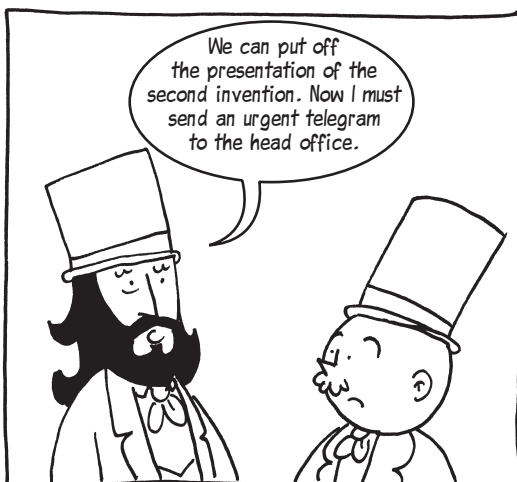








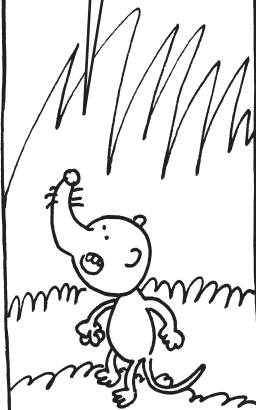




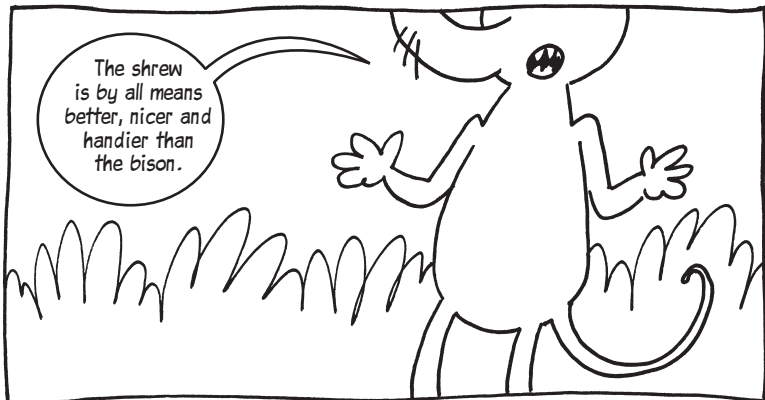


The last  
bison killed off!  
The last  
bison...

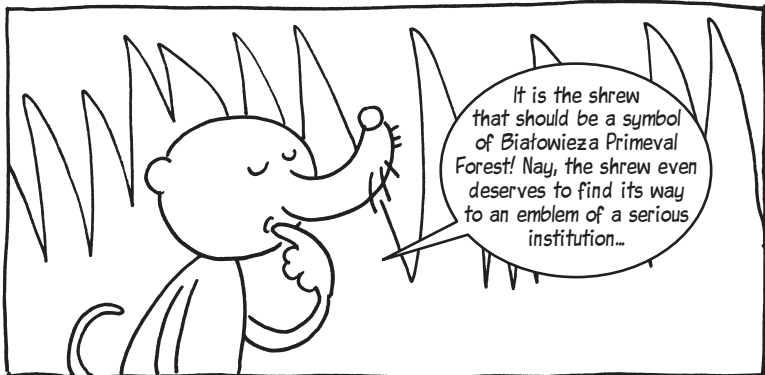
So much  
the better! All  
I can hear is bison  
and bison. Bison this,  
bison that. Maybe now  
the eyes of the world  
will turn to other, not  
less noble animals.  
Shrews, for example.  
Does anybody know  
that the skull of the  
shrew gets smaller in  
winter? Huh? And do  
bison have anything  
getting smaller? I  
don't think so.  
Only their stomachs  
are getting bigger,  
as simple  
as that!



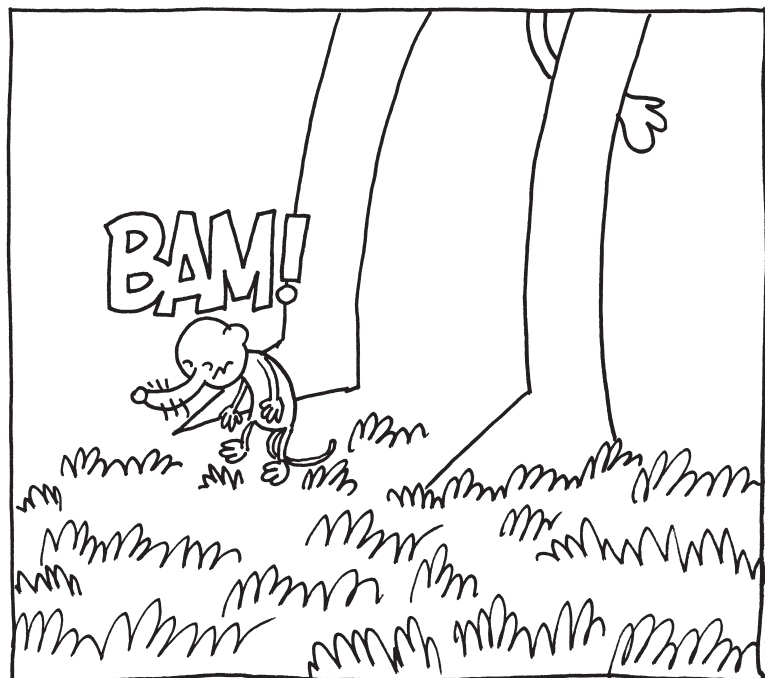
The shrew  
is by all means  
better, nicer and  
handier than  
the bison.

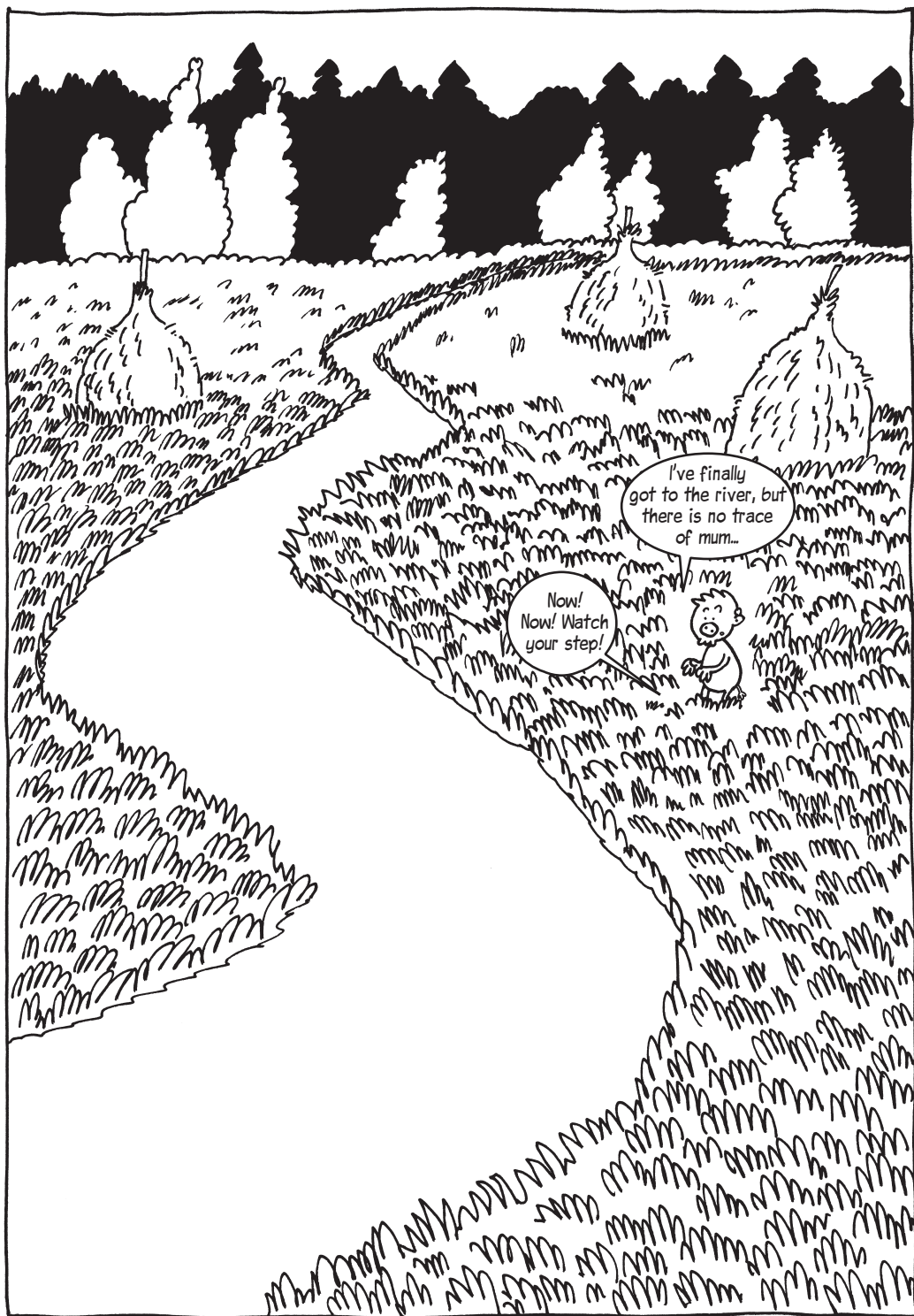


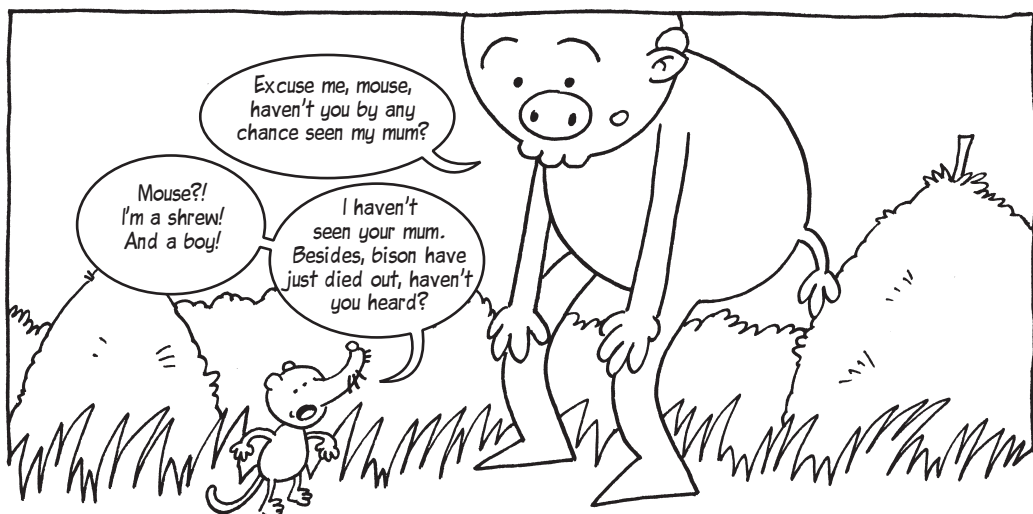
It is the shrew  
that should be a symbol  
of Białowieża Primeval  
Forest! Nay, the shrew even  
deserves to find its way  
to an emblem of a serious  
institution...

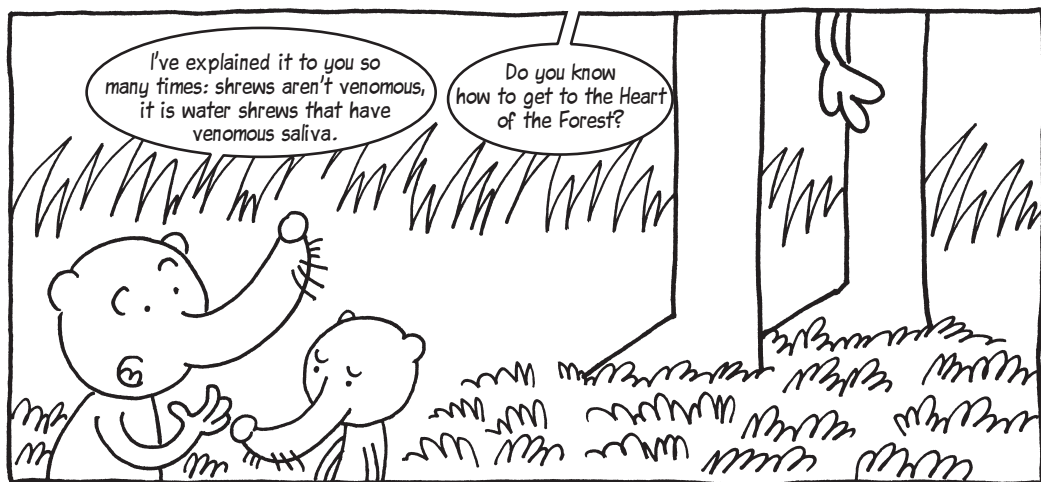
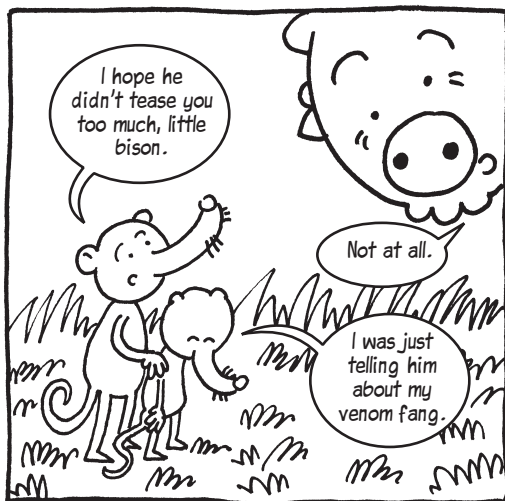


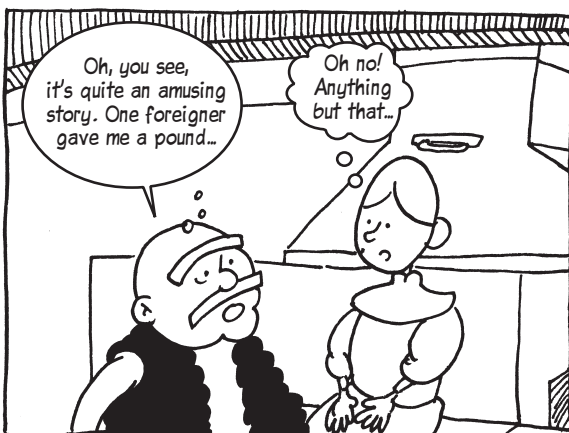
**BAM!**

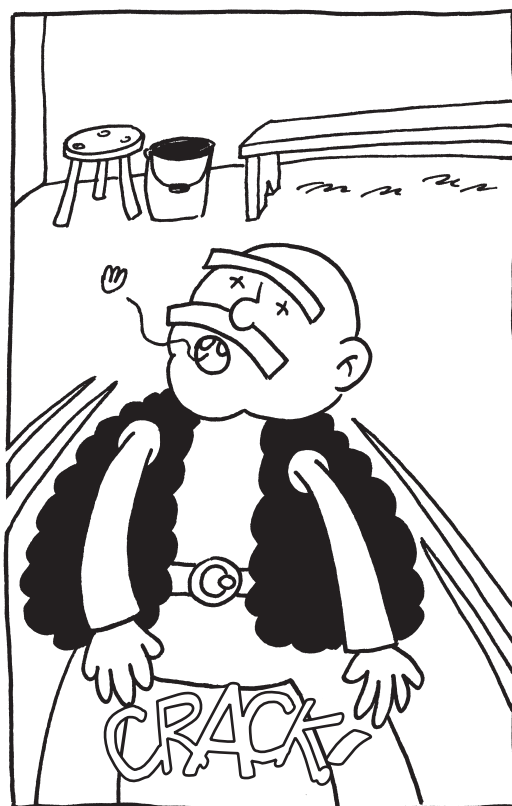
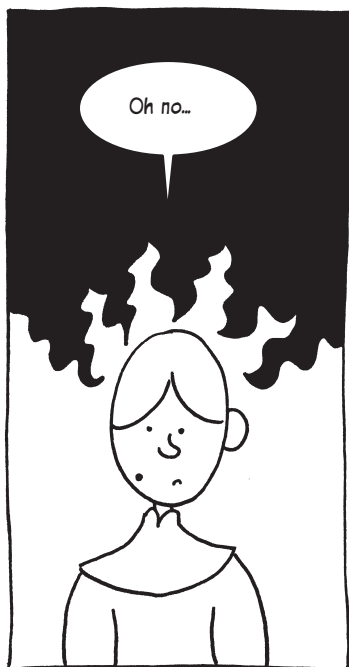


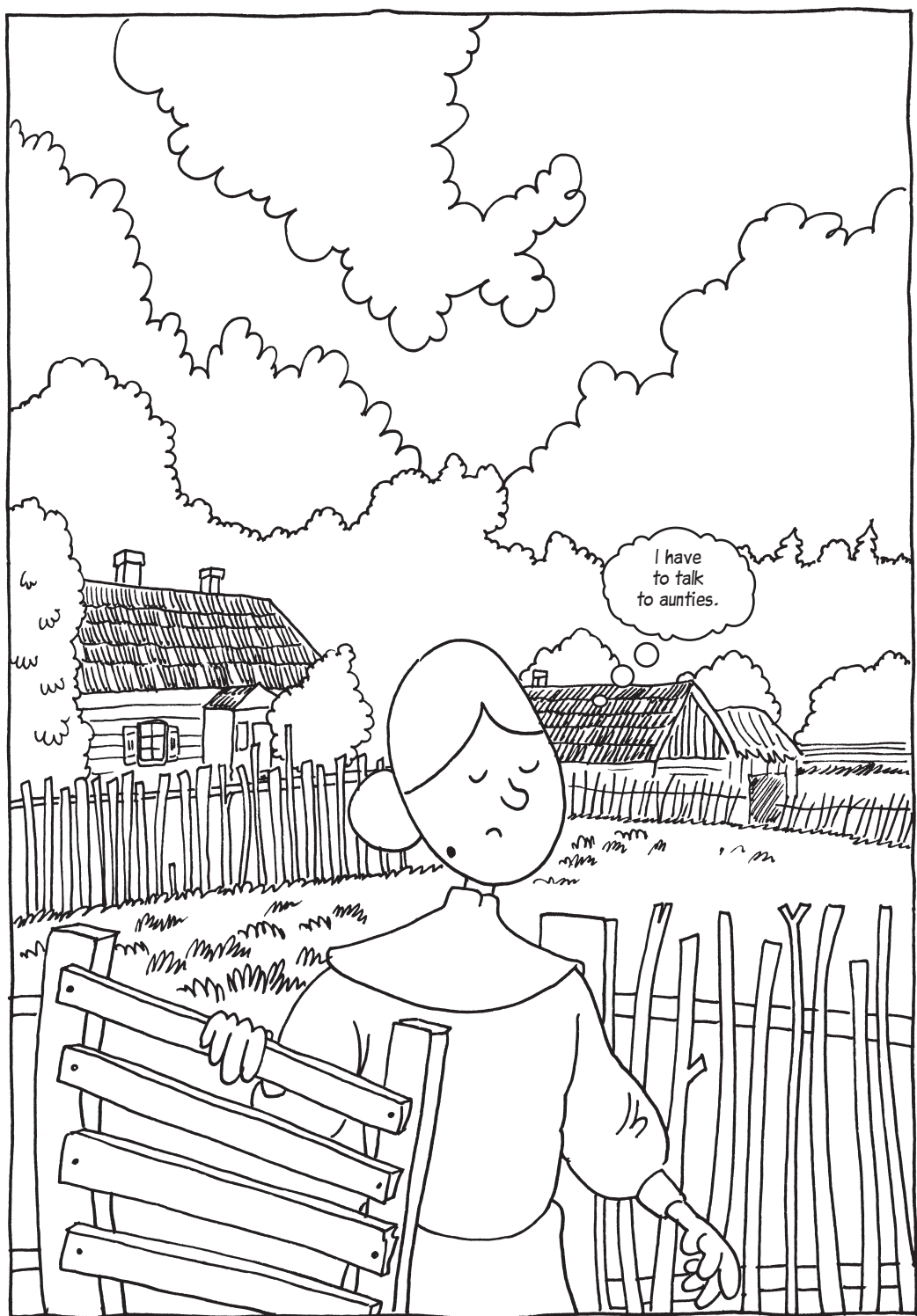


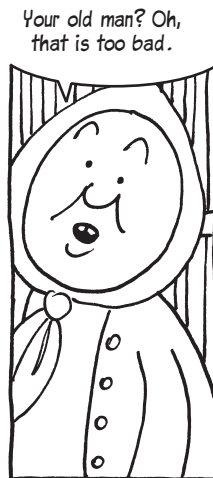
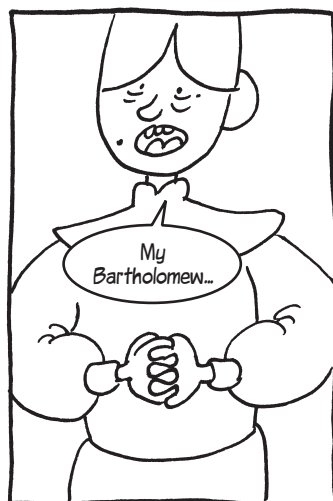


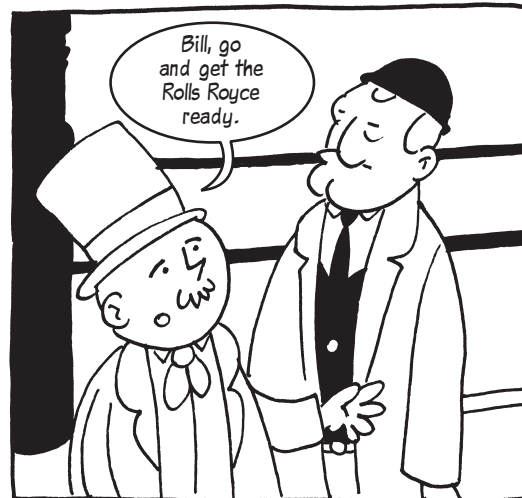


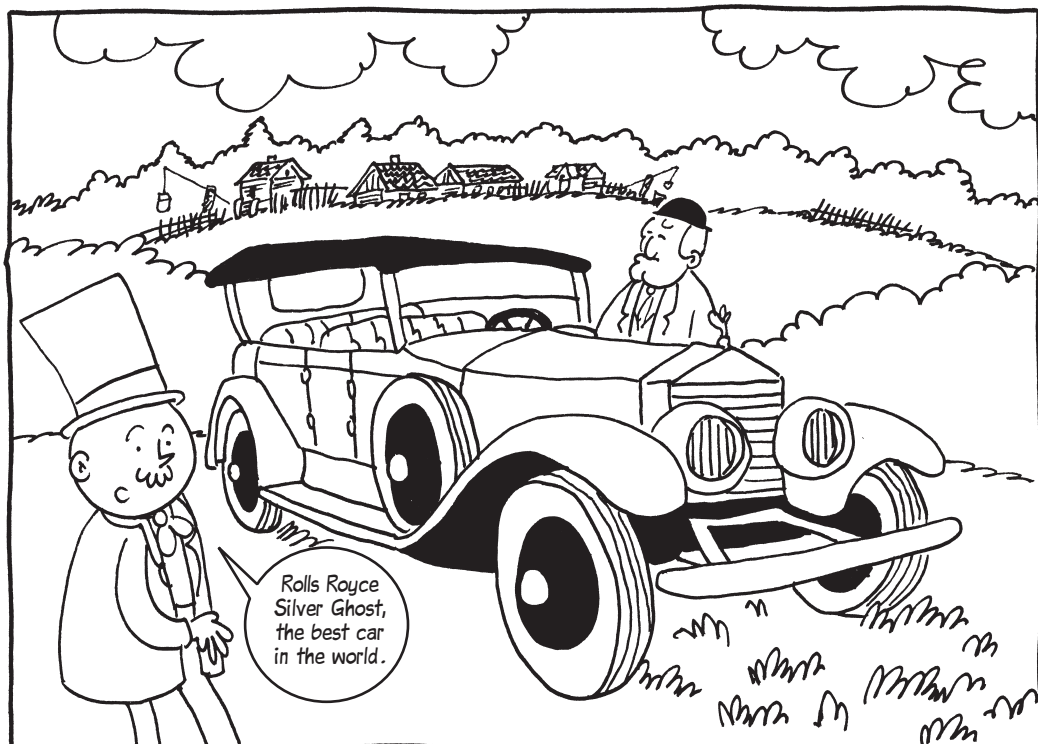


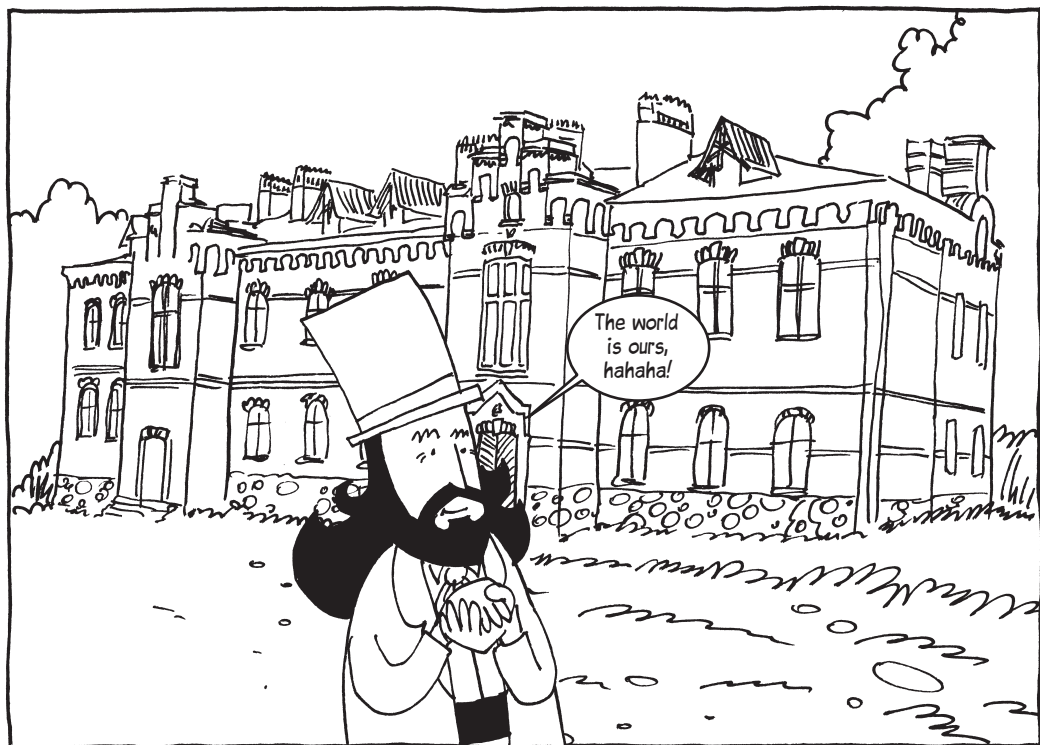




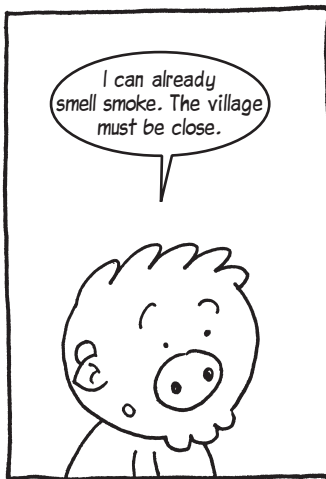
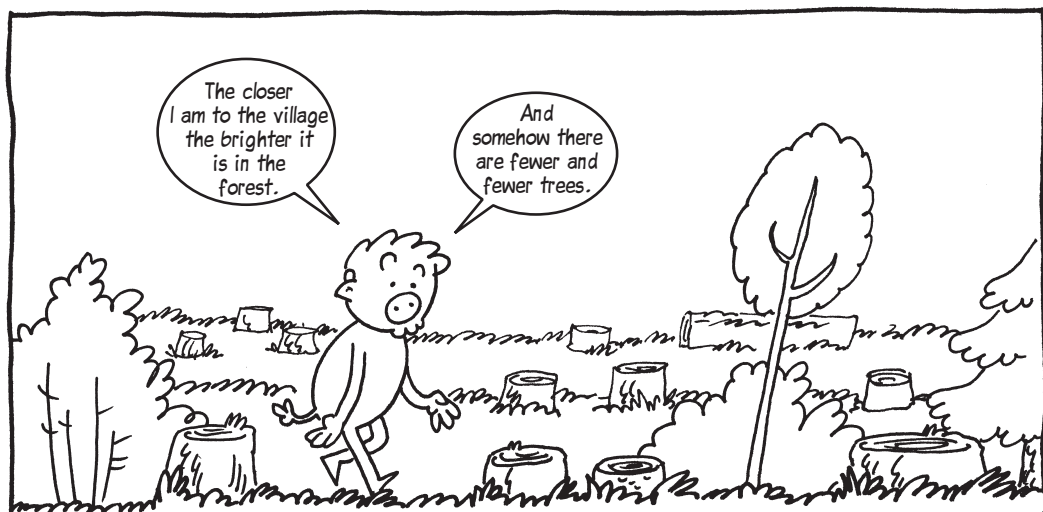


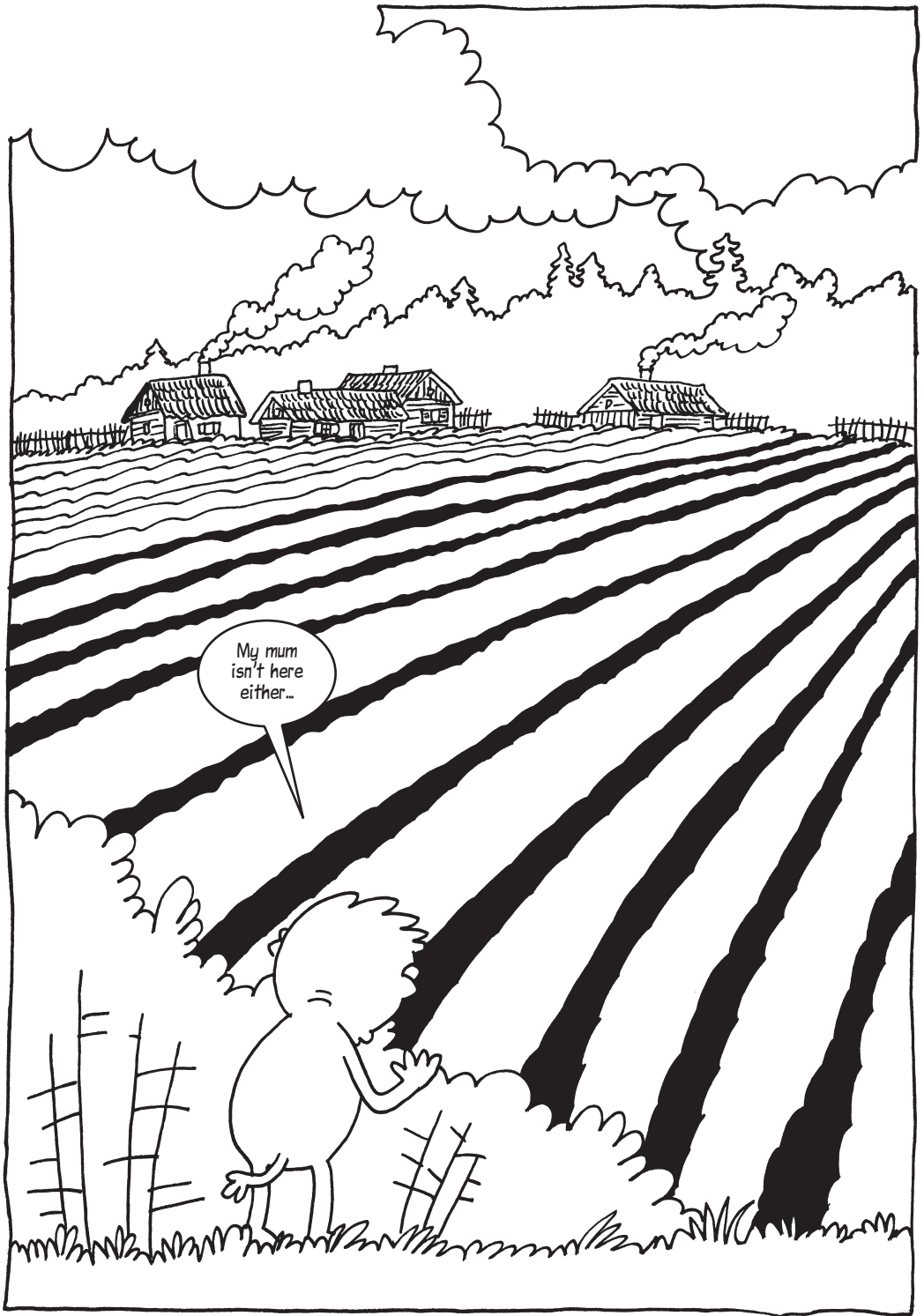


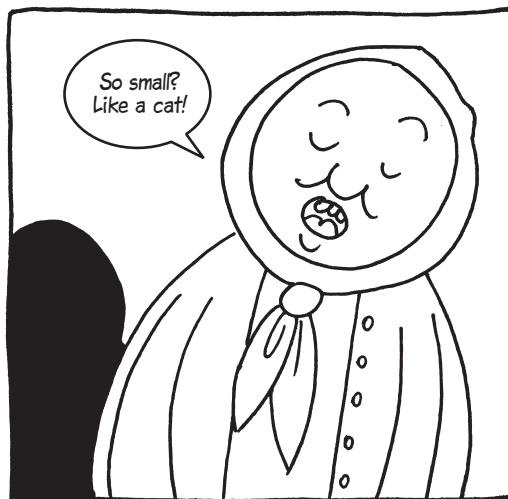
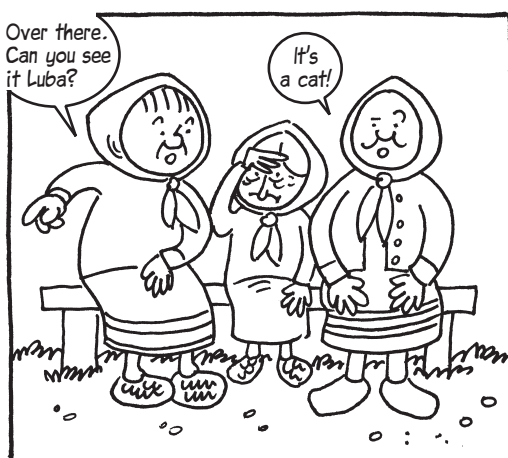
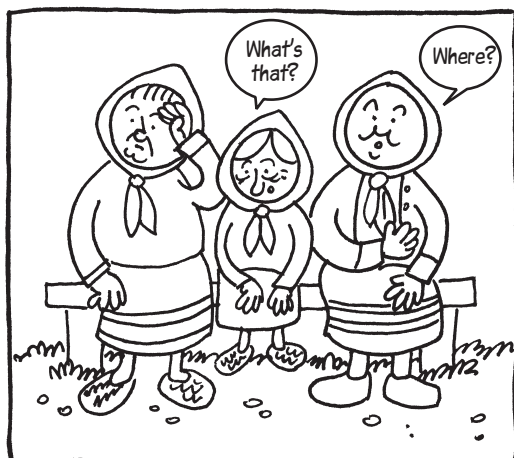


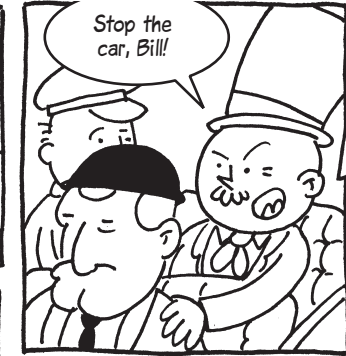
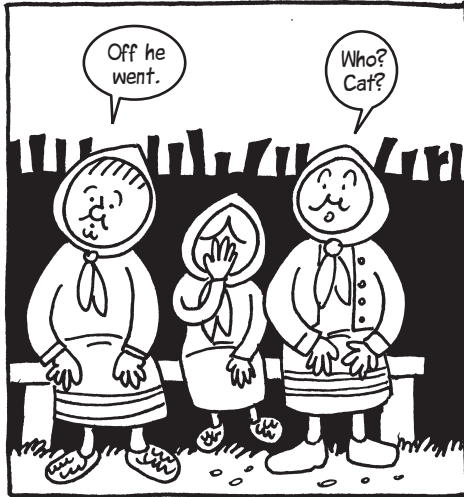


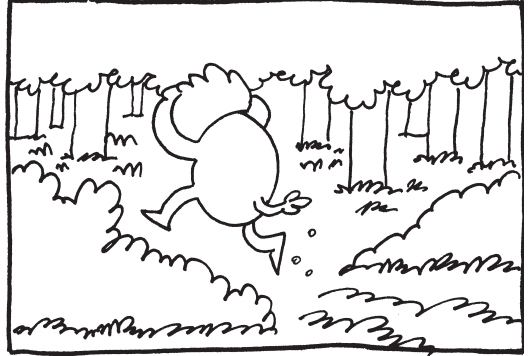
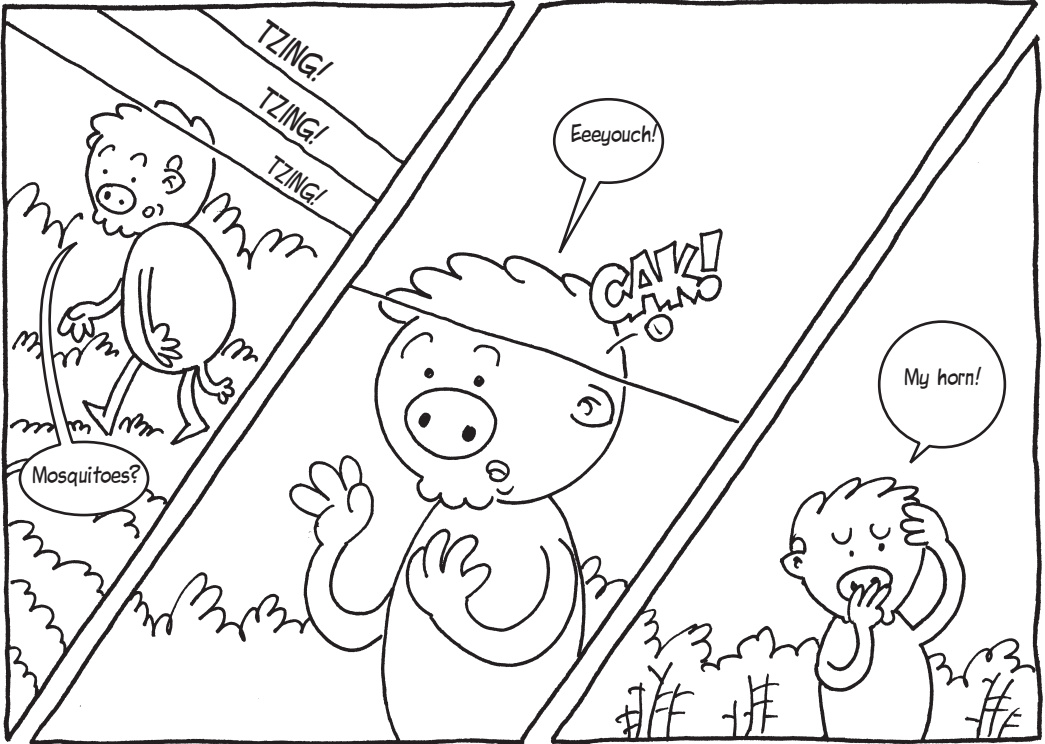


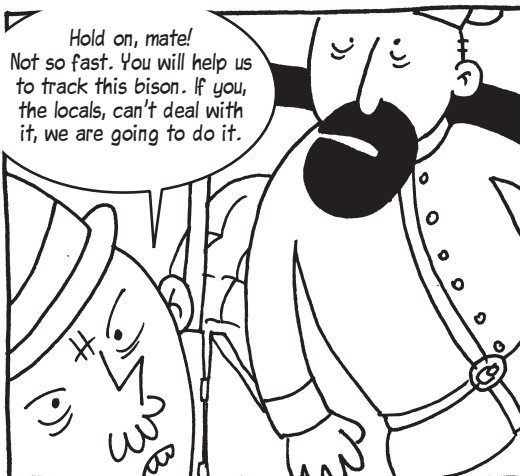
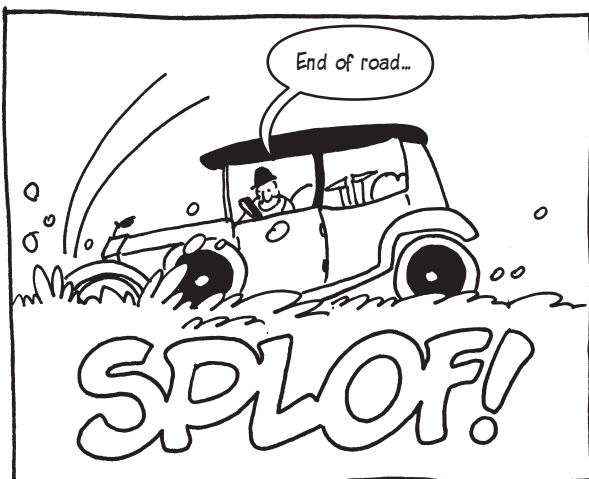
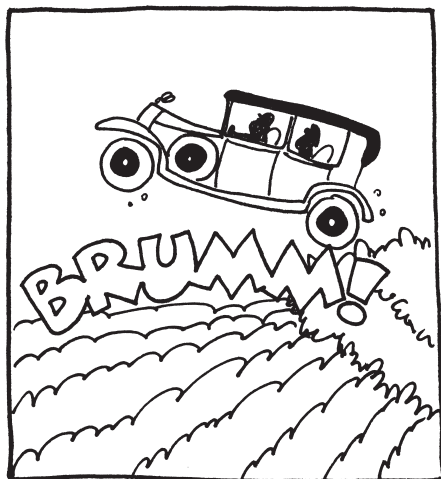


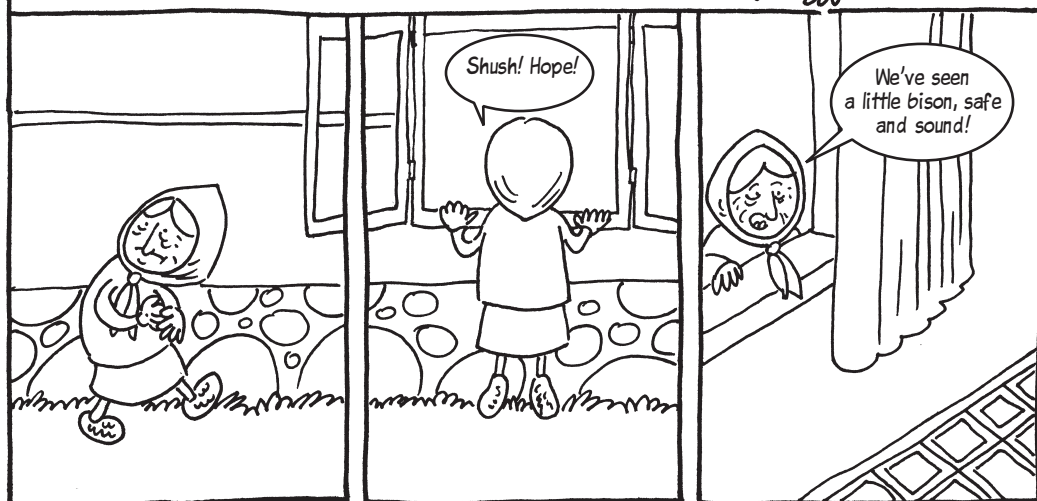
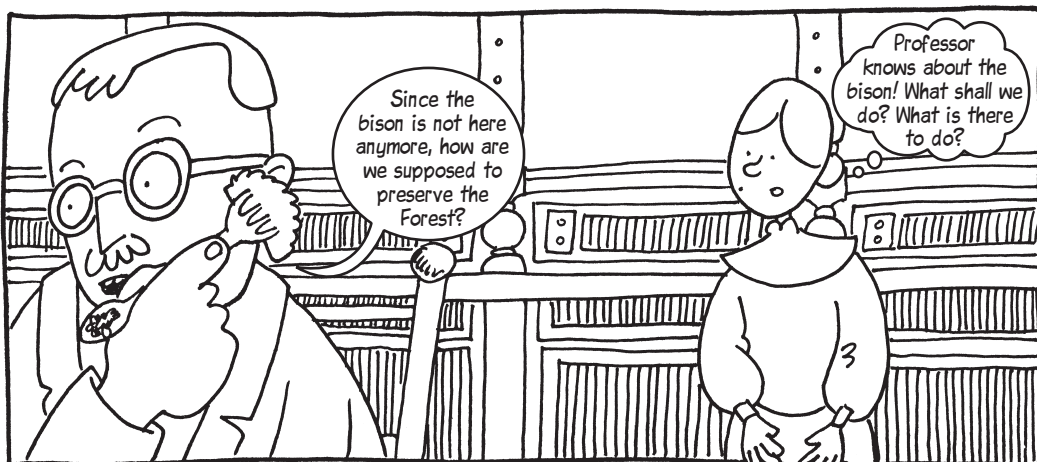
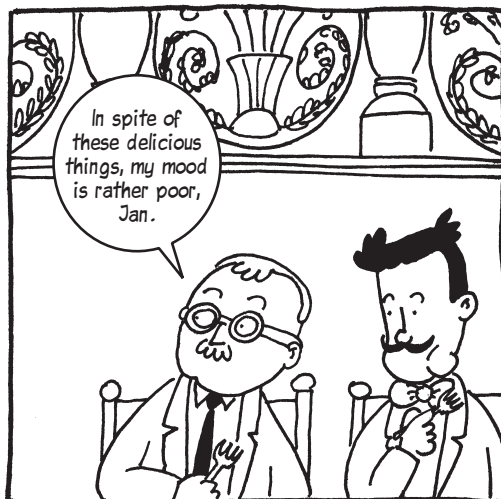
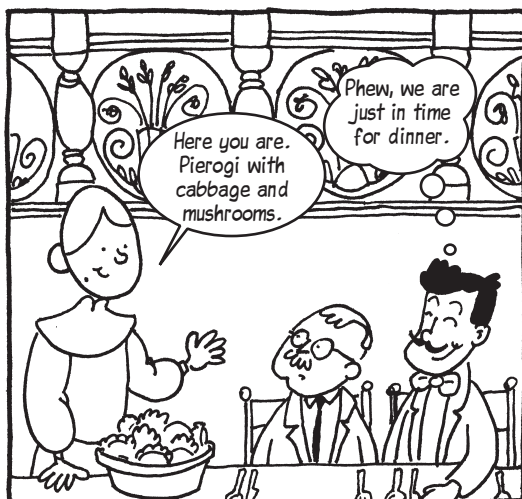


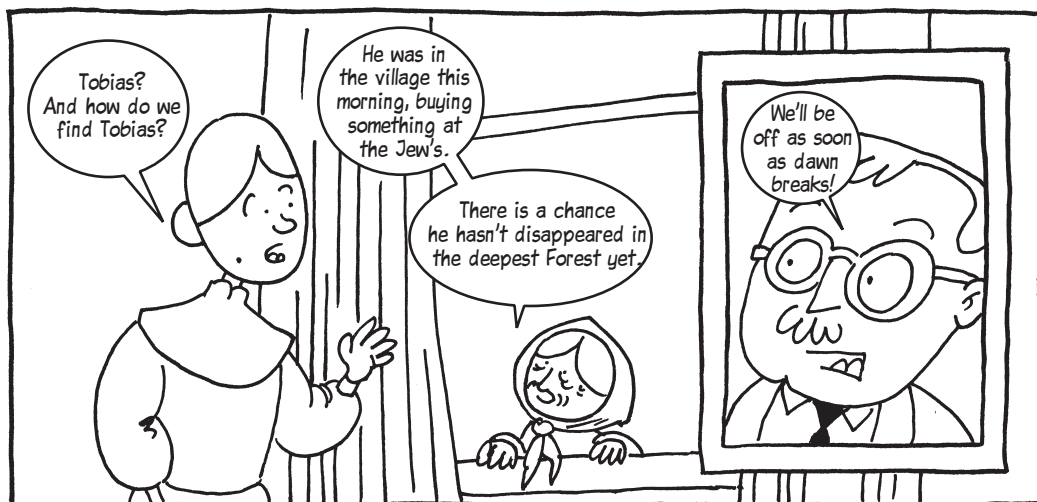


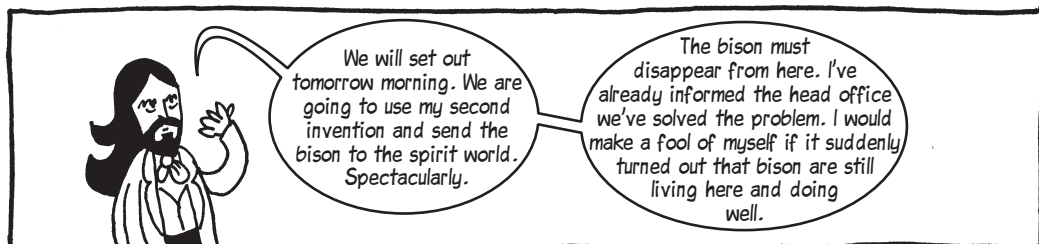


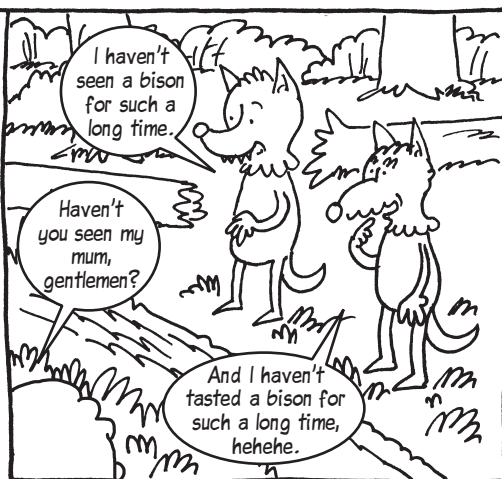
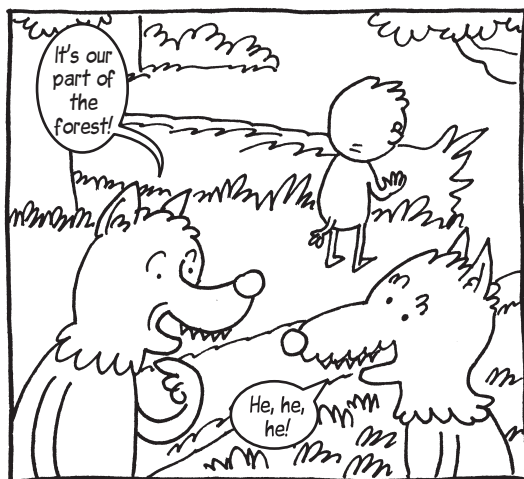
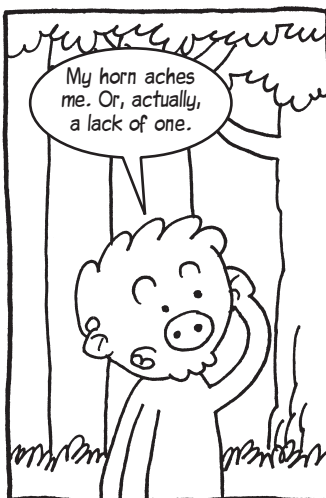




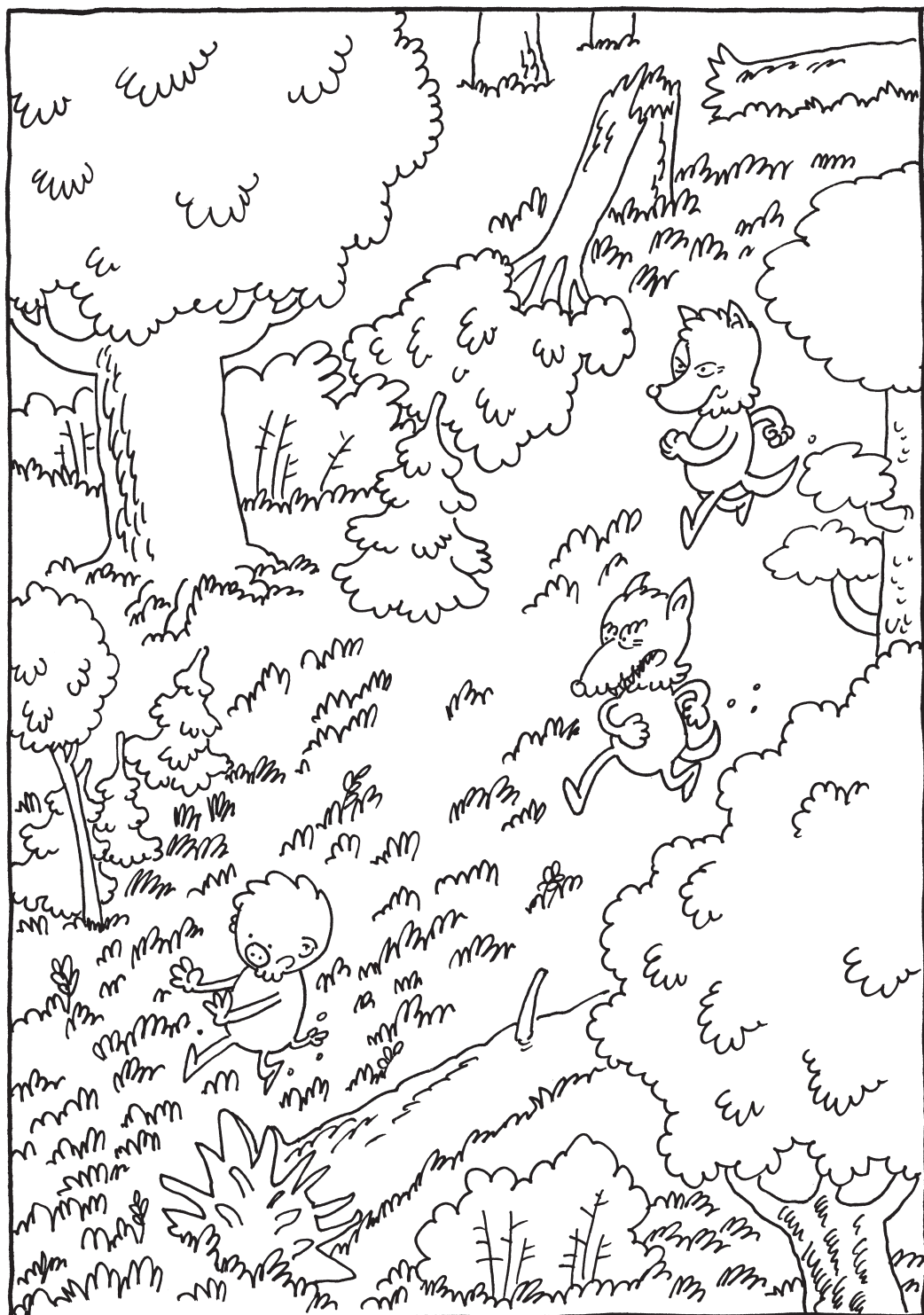


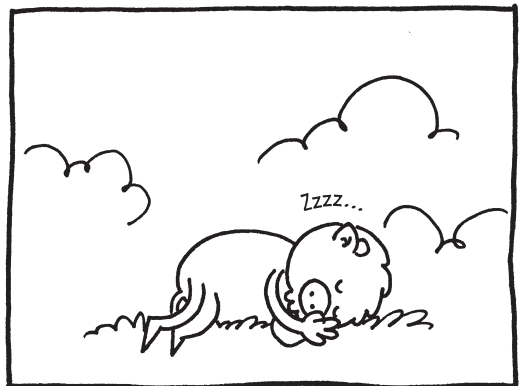
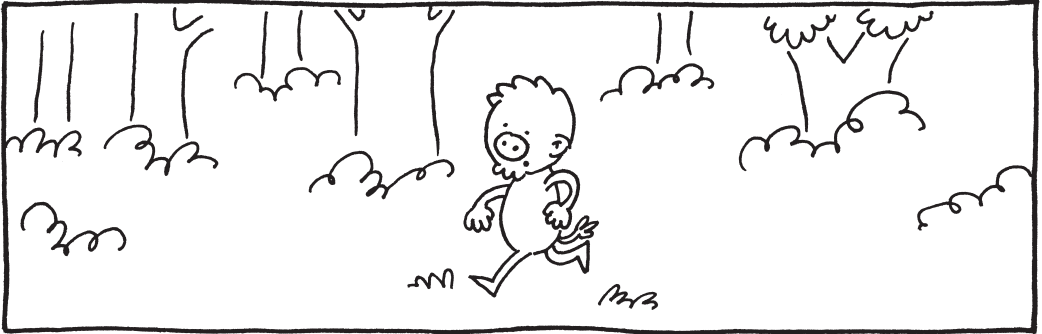
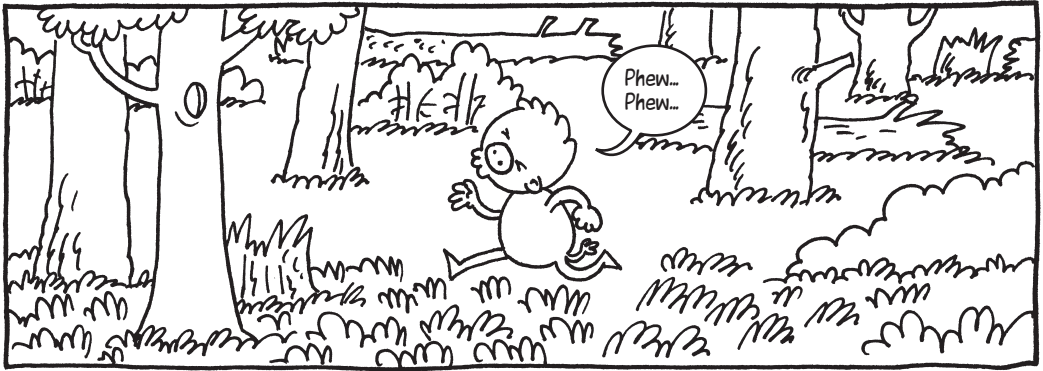


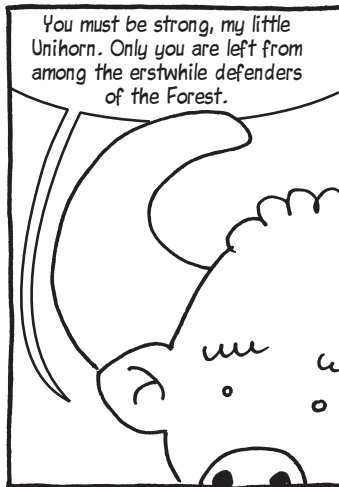
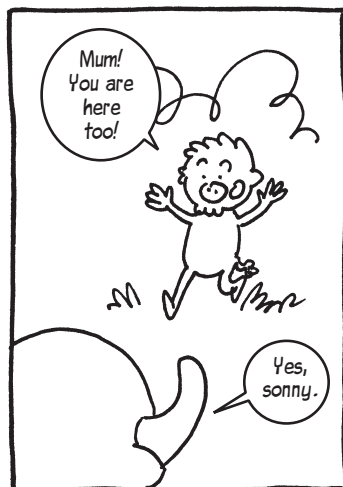


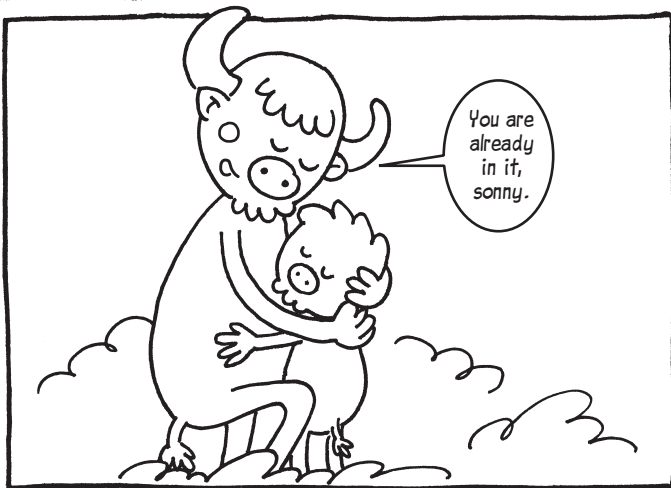
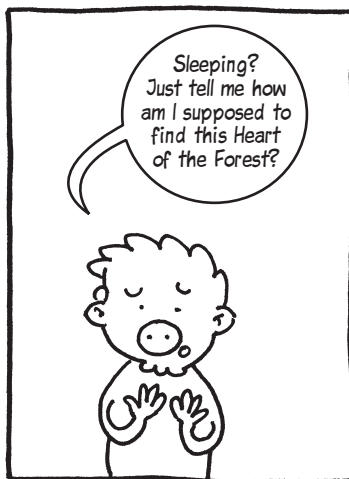
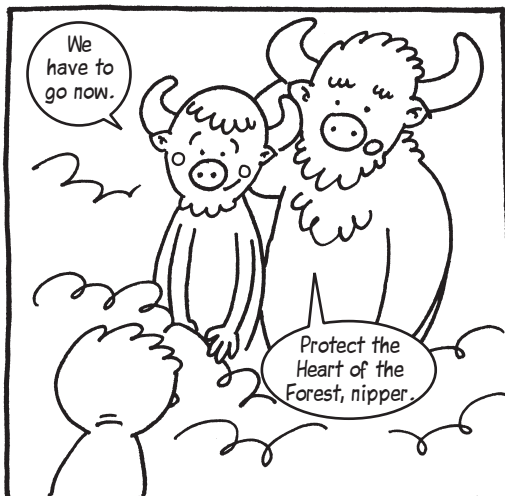




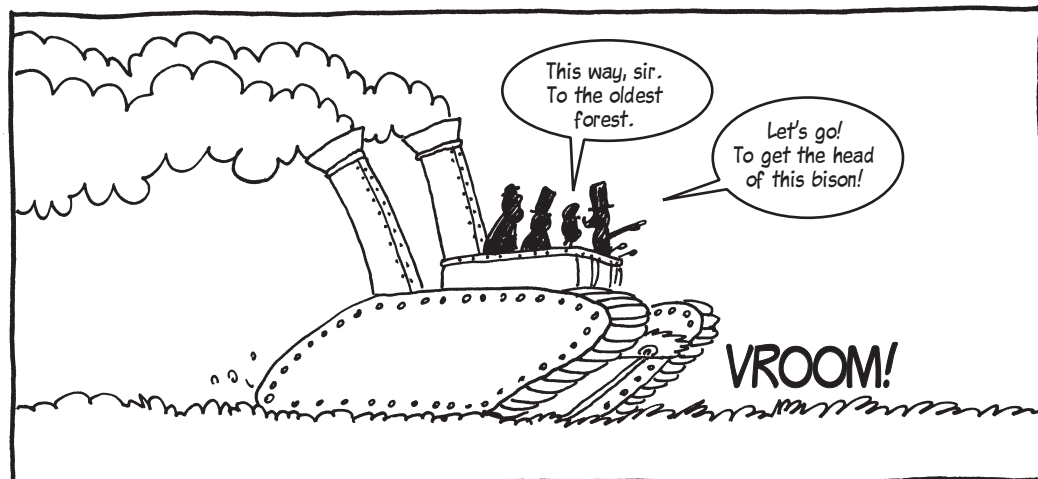
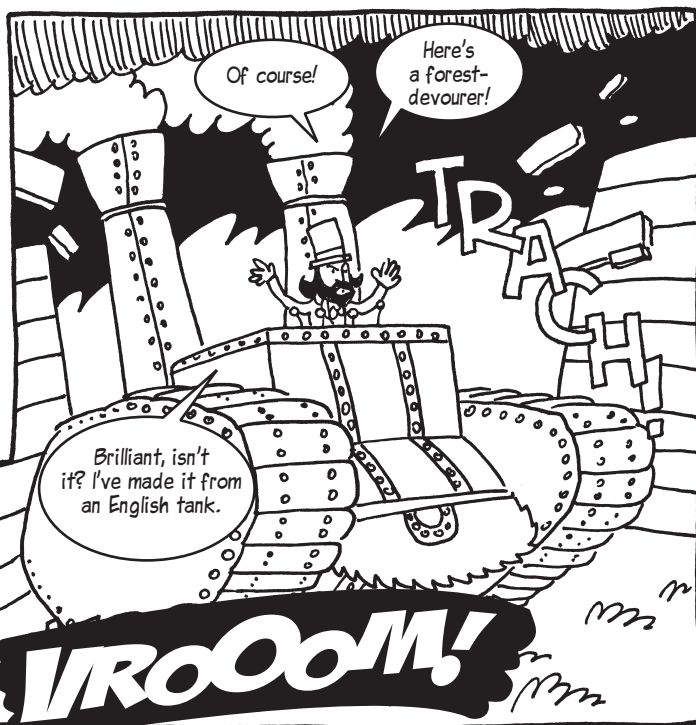
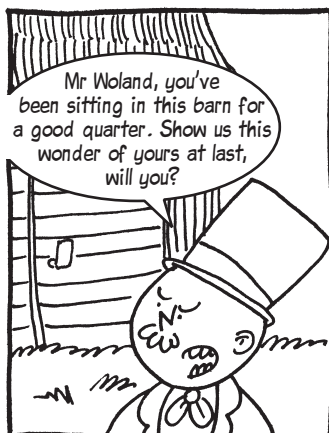


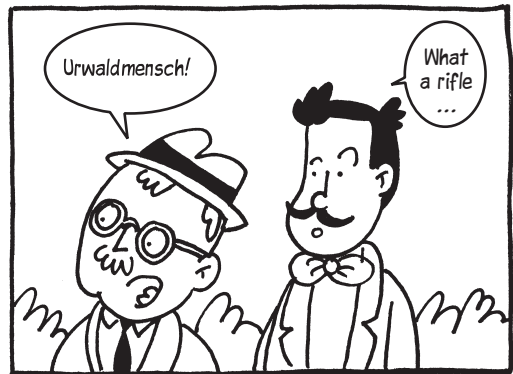
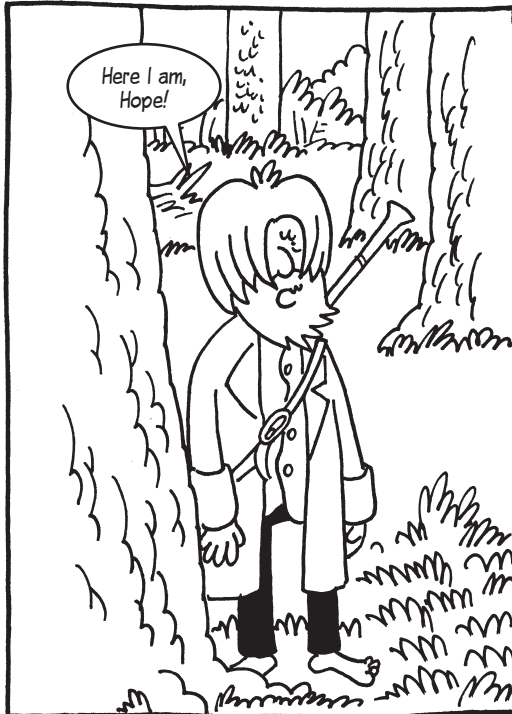
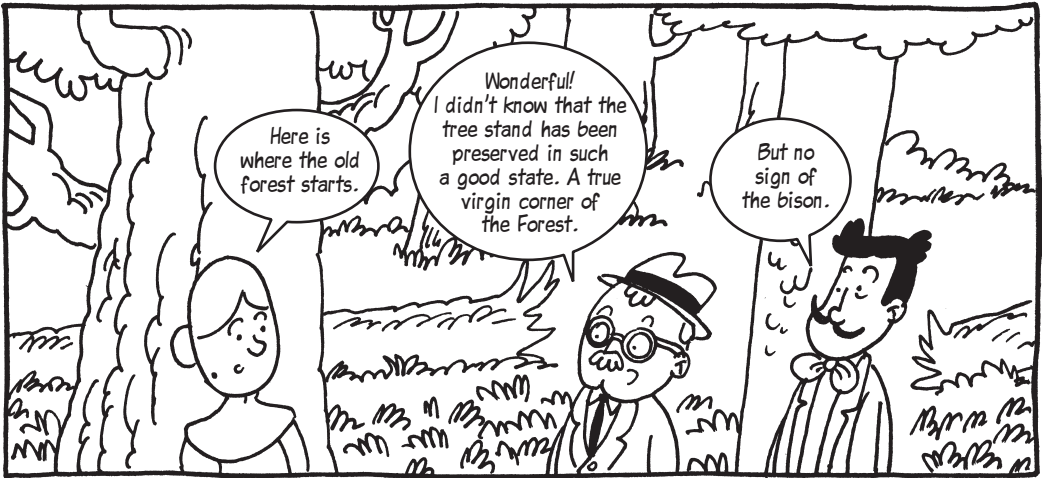


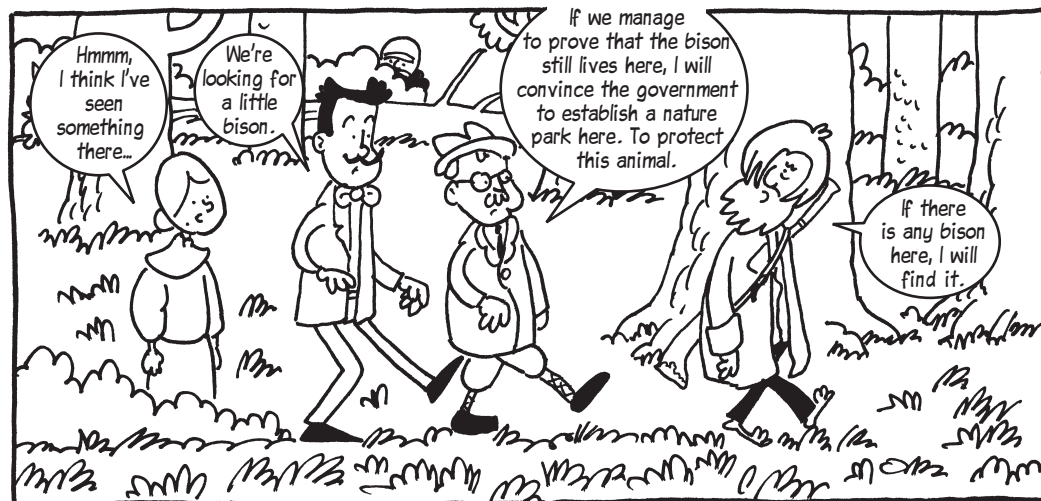
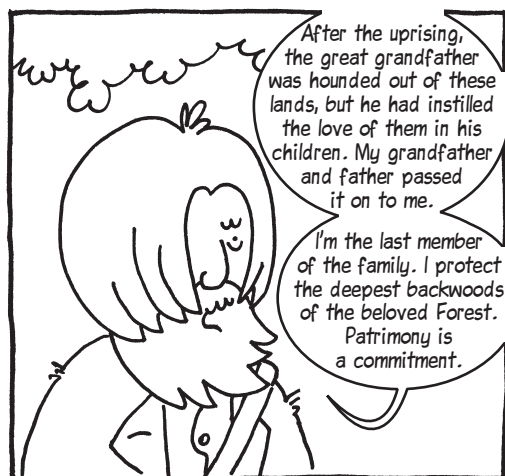
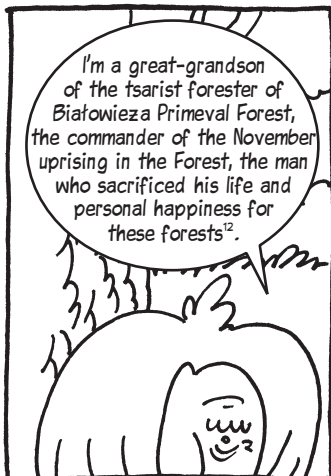
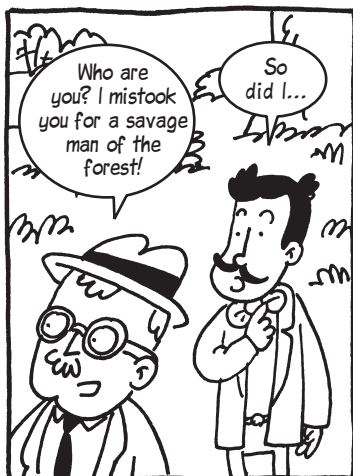


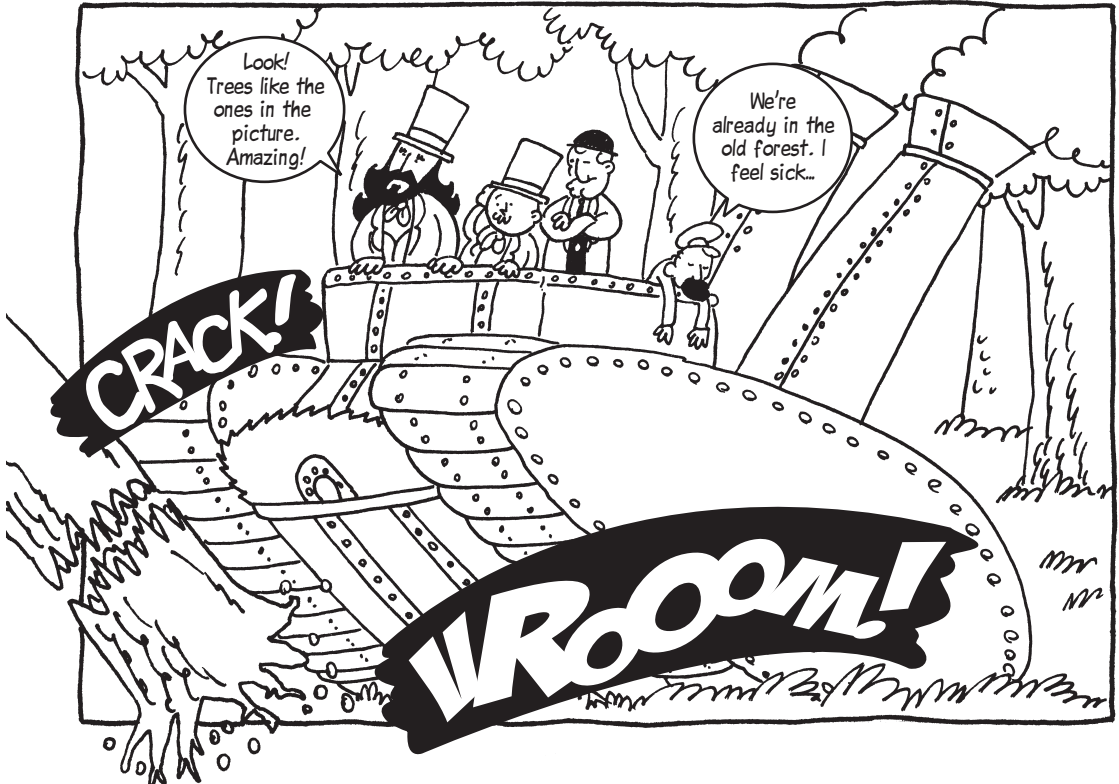
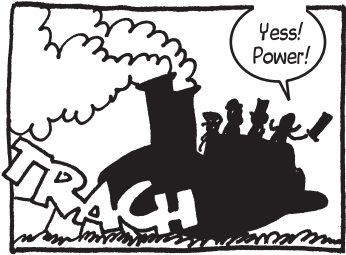
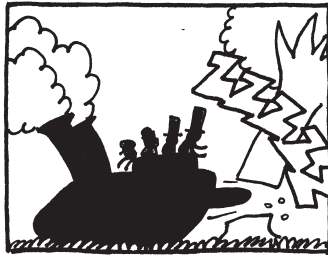


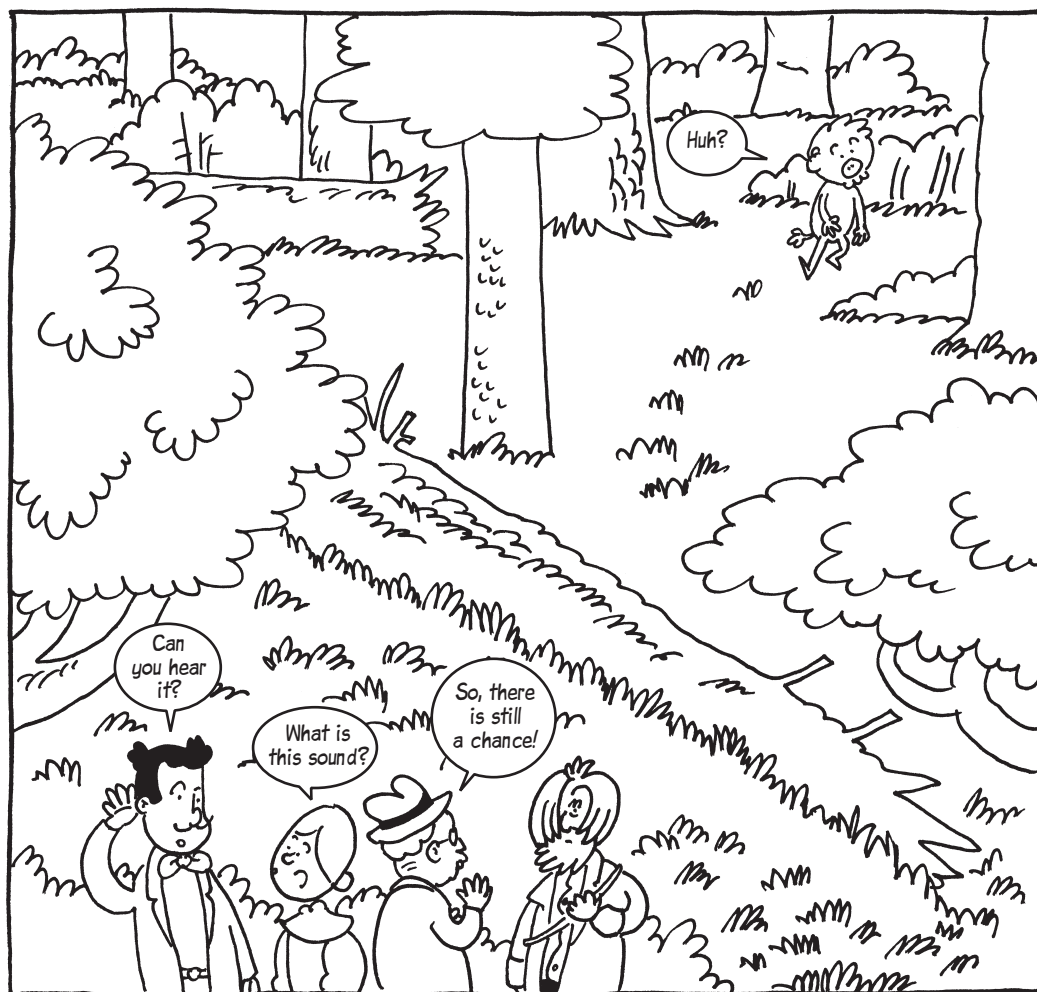


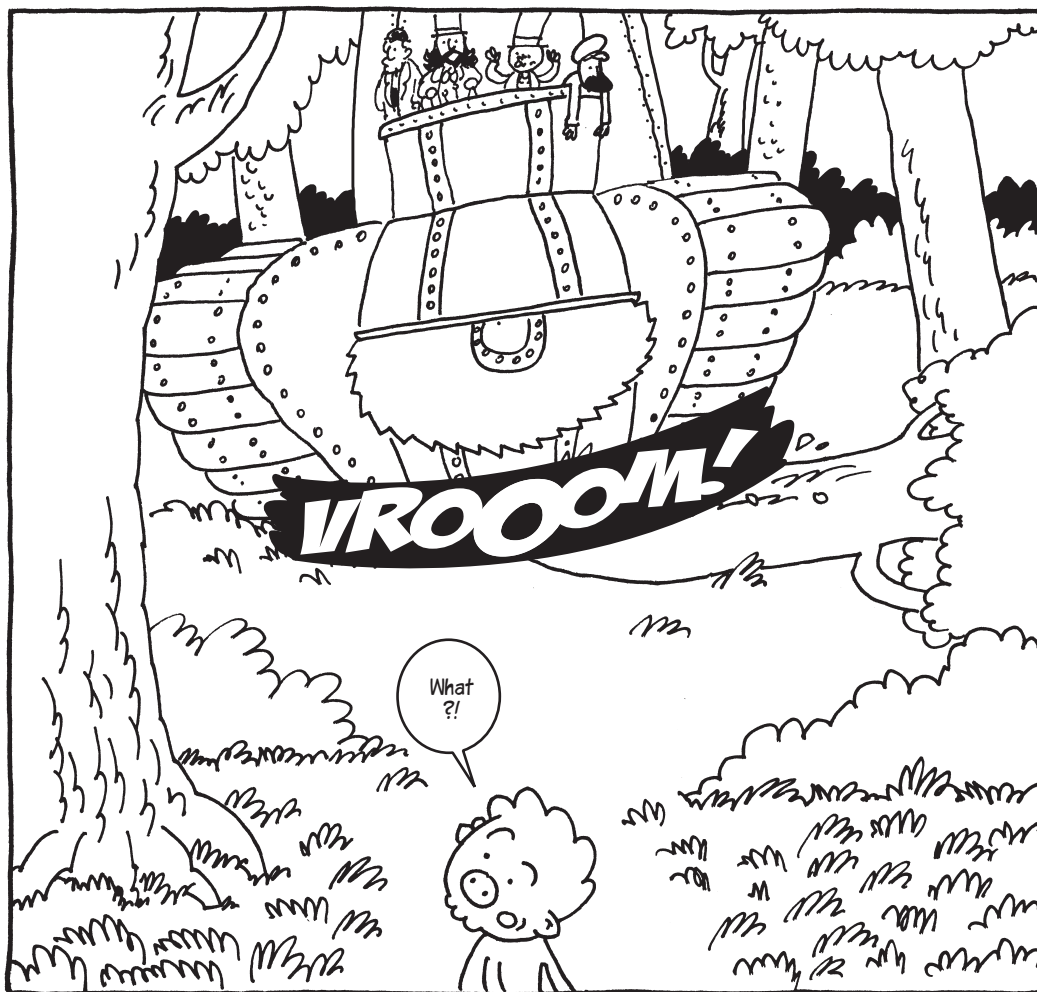


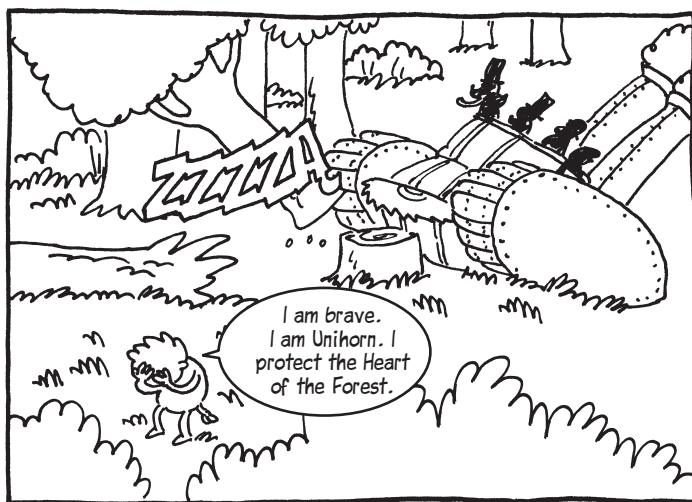
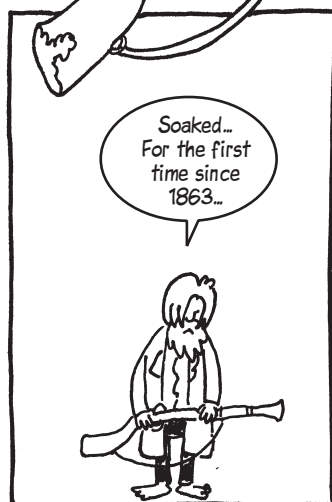
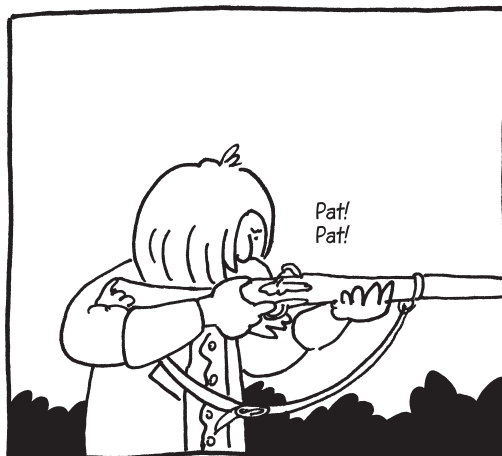
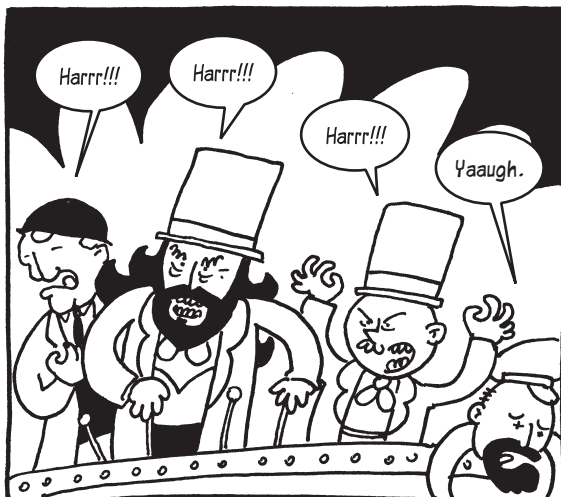
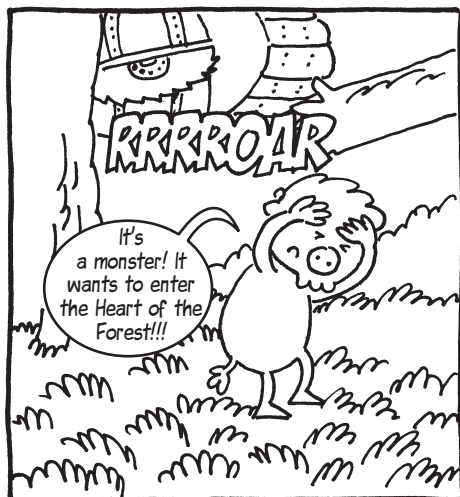


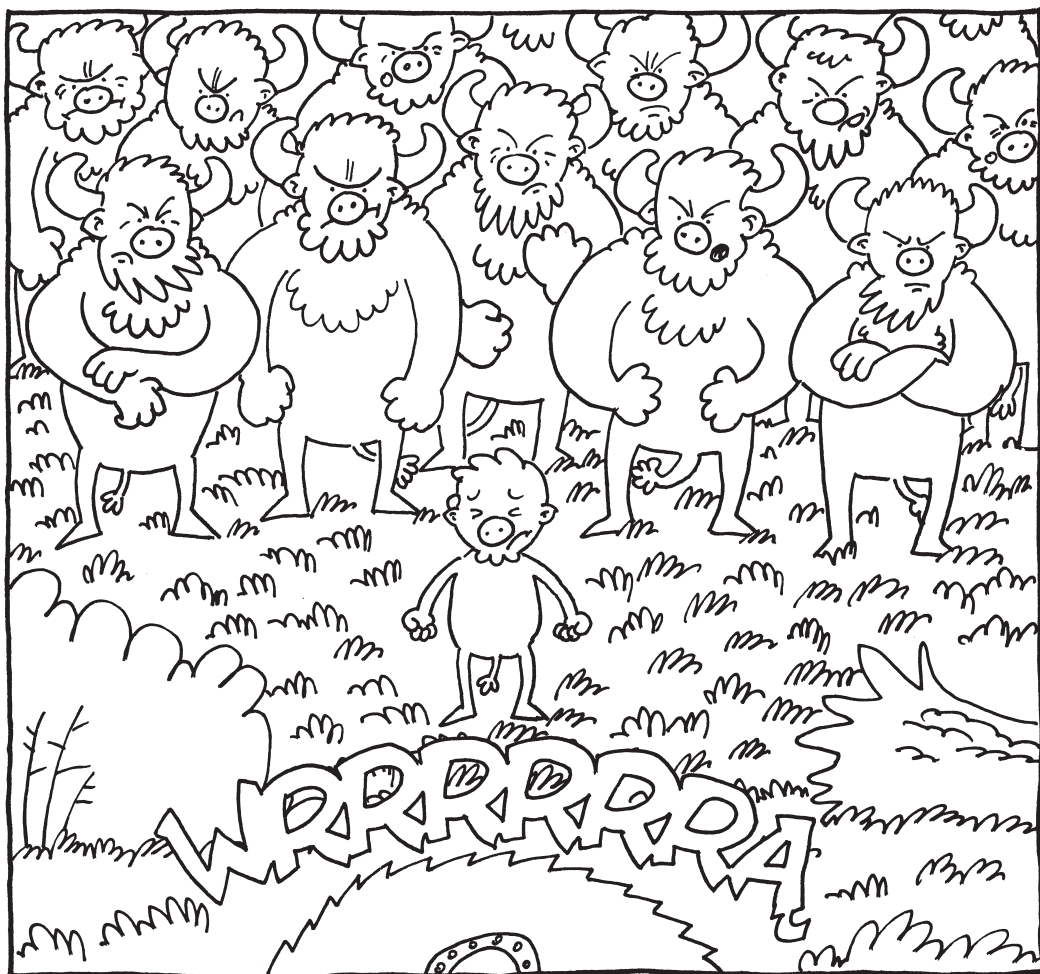
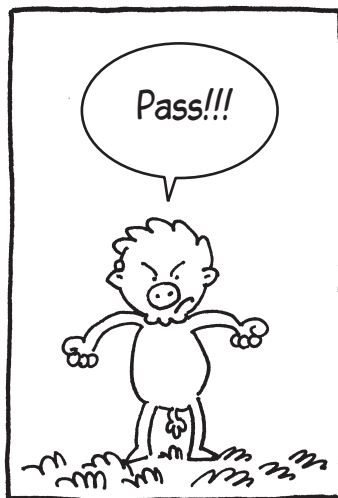
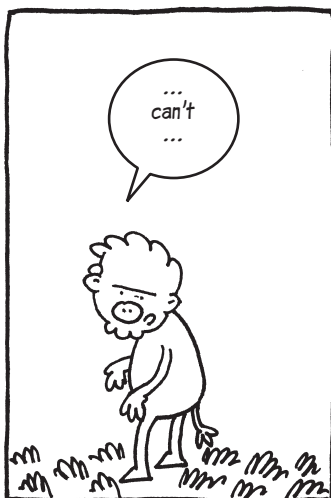
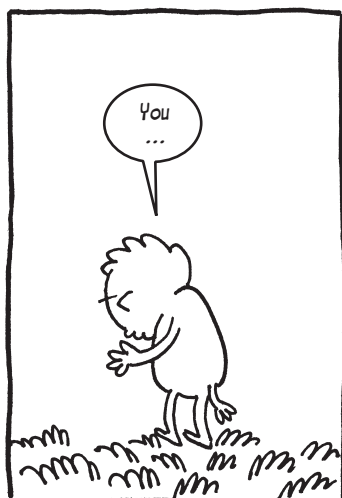


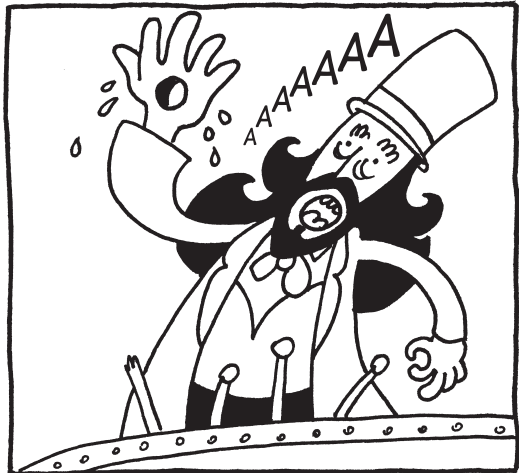
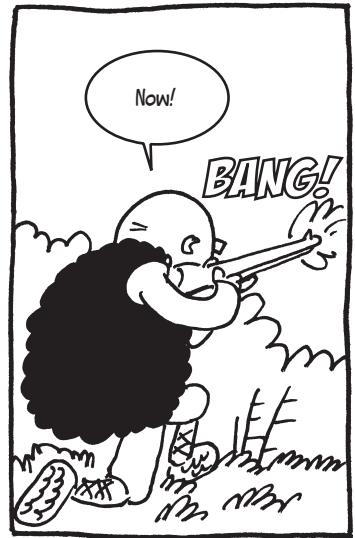
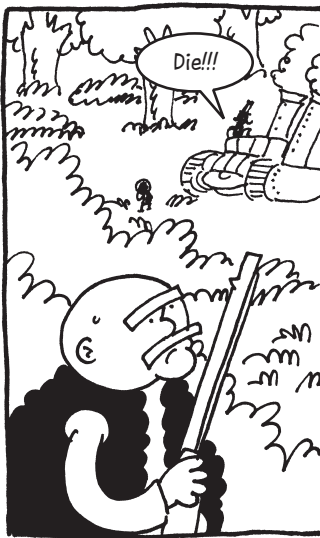
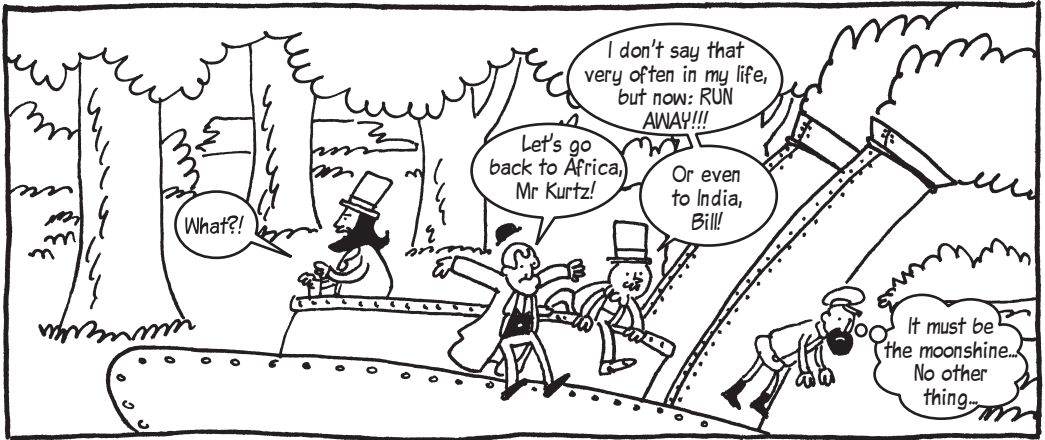


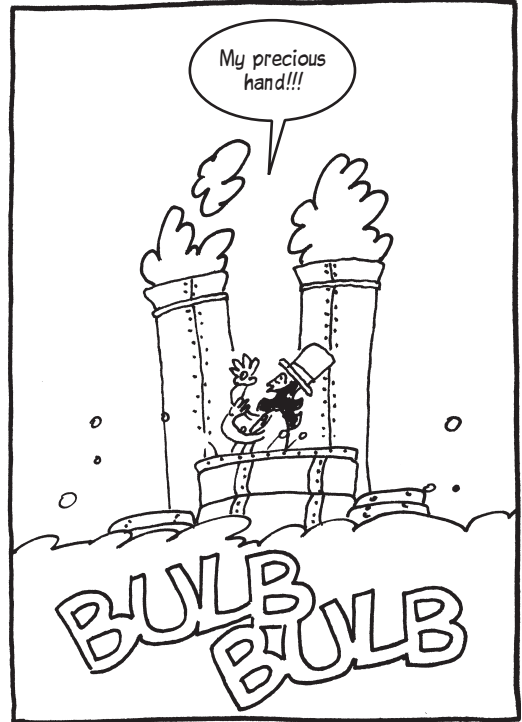
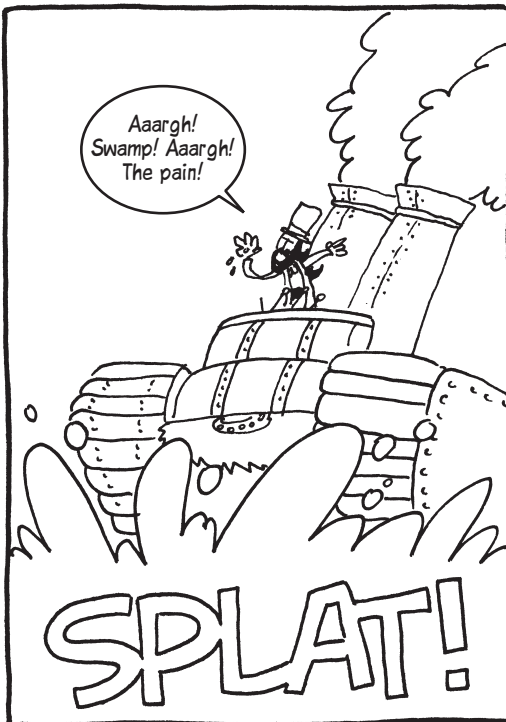
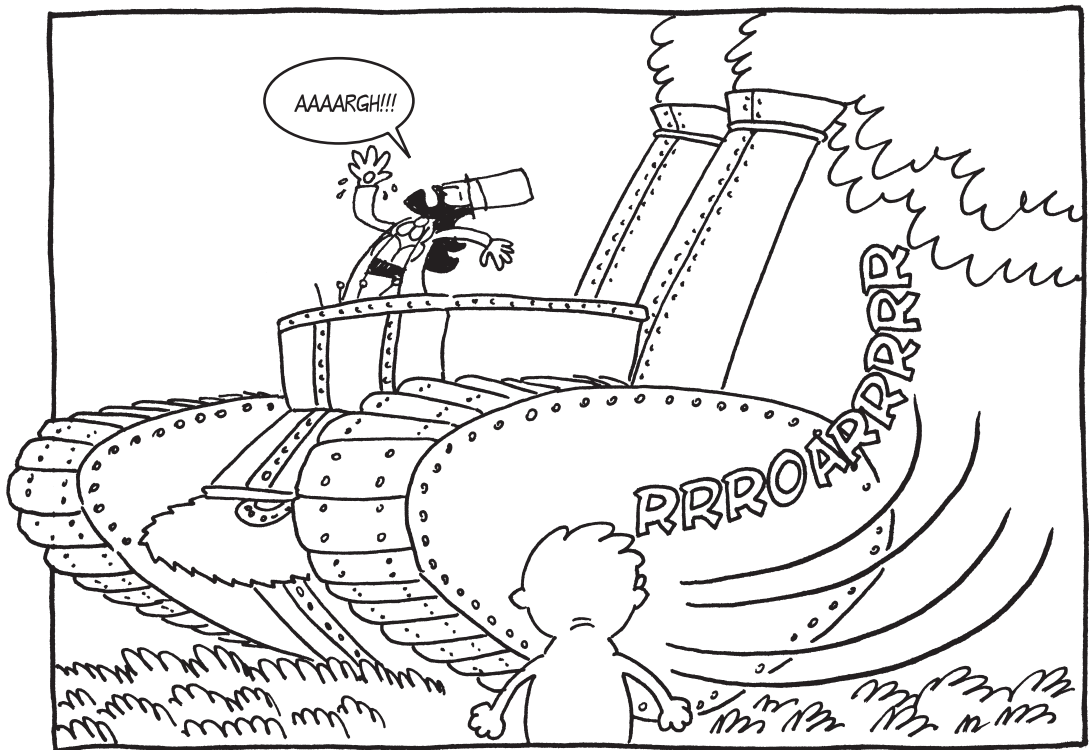


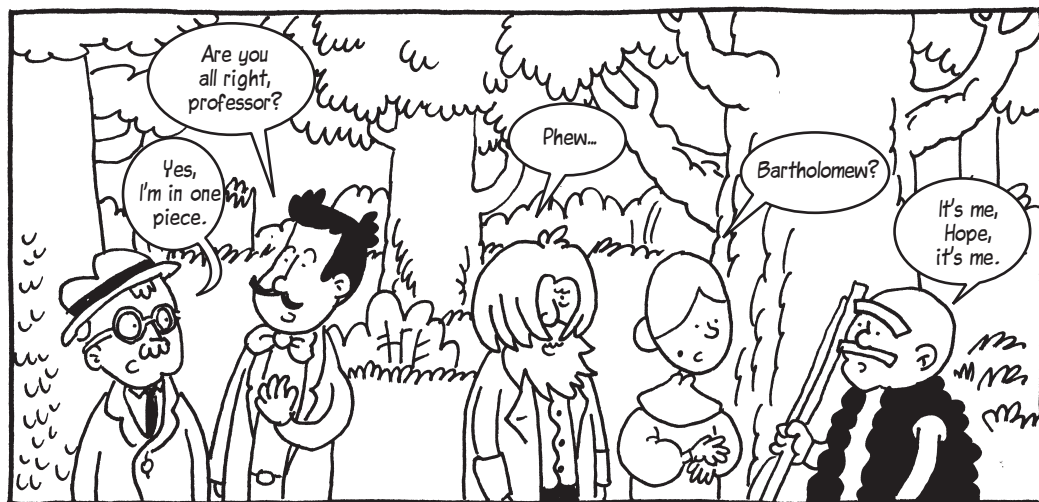
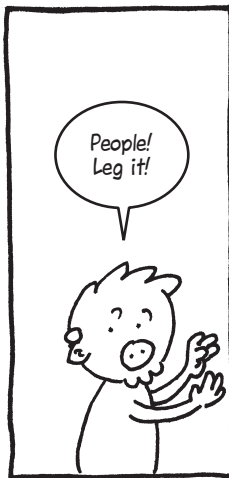
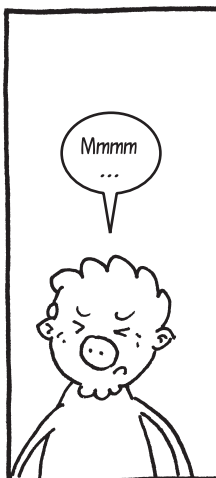
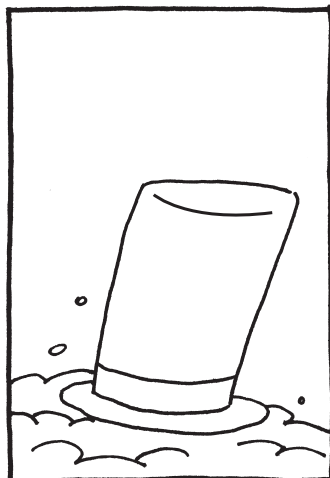


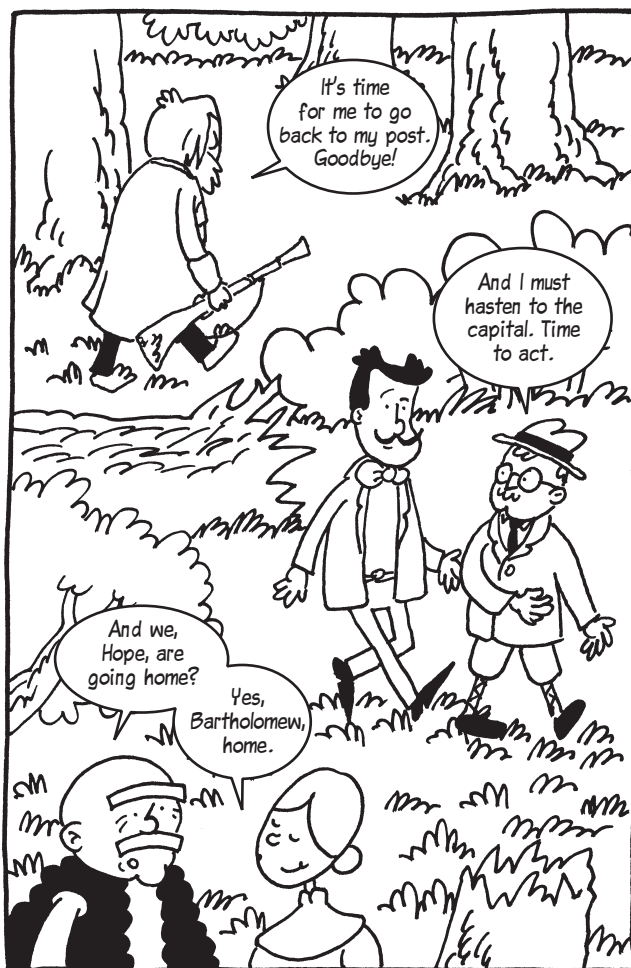
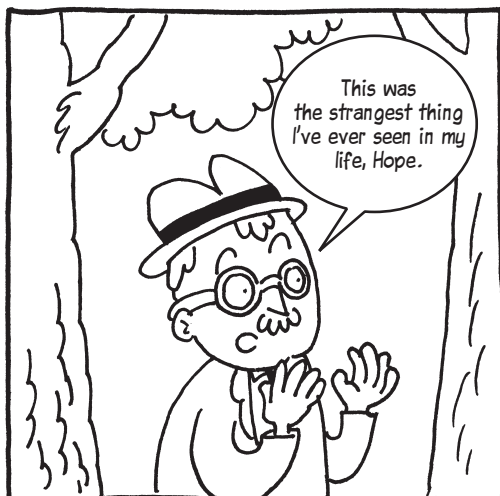


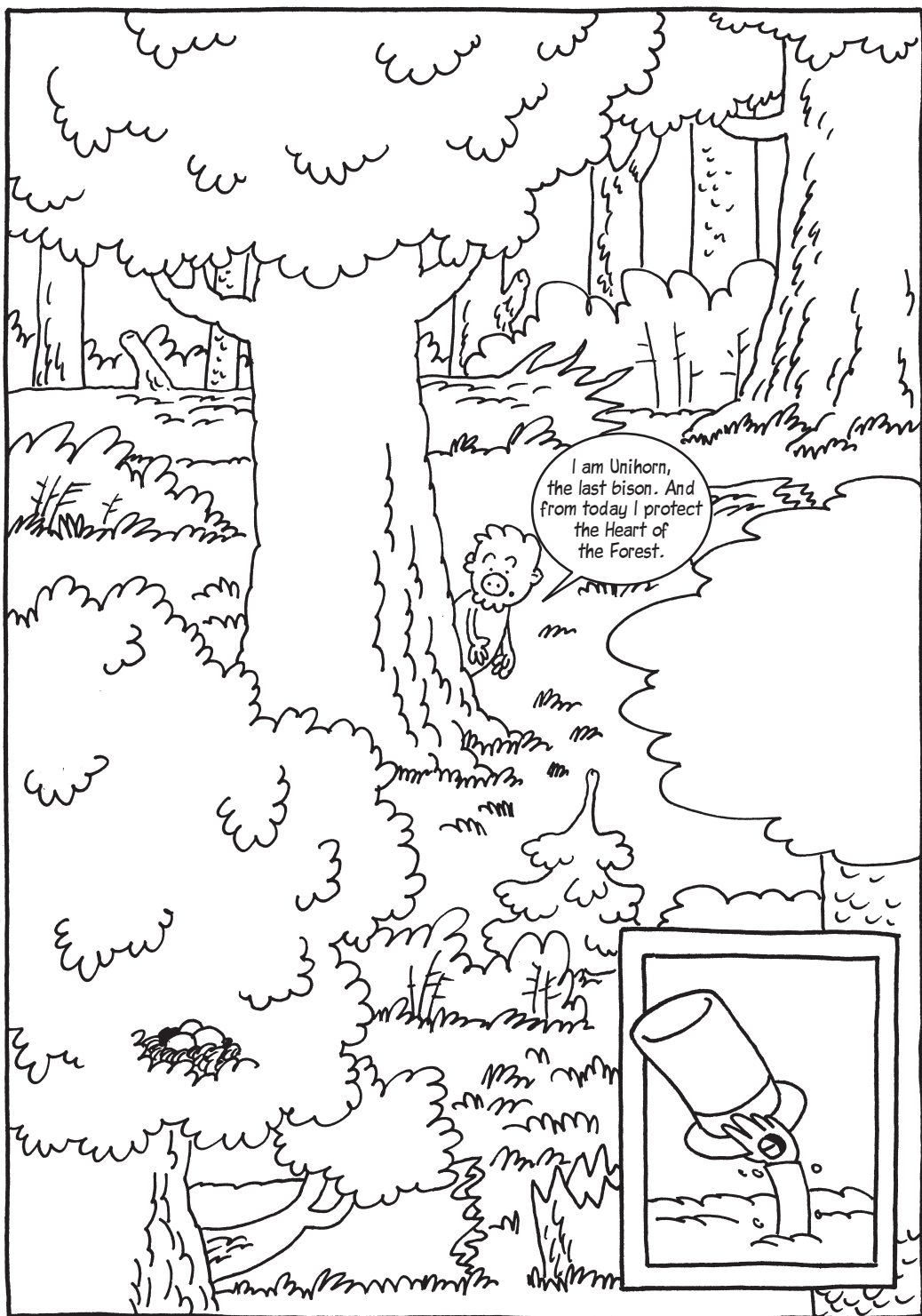


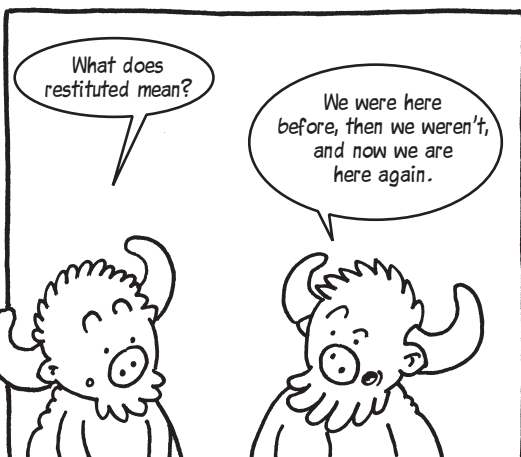
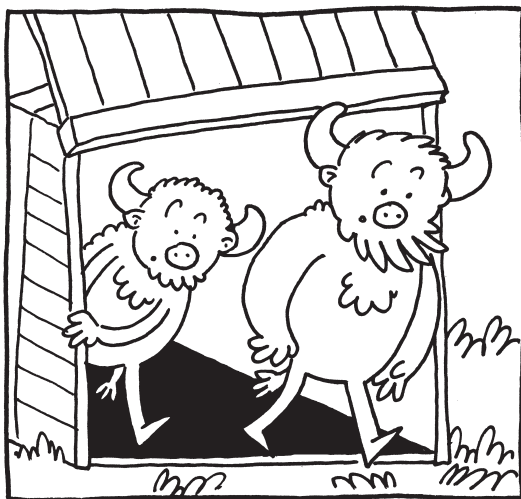












\* Jan Jerzy Karpiński was one of the initiators of an action to restitute the bison in Białowieża Primeval Forest.

THE END

After the third partition of Poland in 1795 Białowieża Primeval Forest was annexed to the Russian empire. It meant a dramatic change in the situation of the Forest – after hundreds of years of its protection as a royal forest, large stretches of forest and villages inhabited by beaters traditionally protecting royal forests began to be freely distributed.

After annexing the Forest to tsars' appanages (i.e. properties, income from which supported the tsar and his family) in 1888, under an order of tsar Alexander III in years 1889-1894 a palace was erected in Białowieża together with a complex of accompanying buildings (house for the tsar's retinue and for the mayor of the palace, kitchen buildings, palace stable for 40 horses and house for stablemen, laundry room, telephone station, power station, electric mill, woodsheds, cold stores, bakery, garages...).

The palace had 2 floors and 134 rooms altogether, each of which was decorated in a different way (e.g. the walls of one of the rooms were lined with post stamps, of the other one with playing cards). The whole wood material used in its construction came from Białowieża Primeval Forest.

During the World War II a wooden part of the palace construction burnt down. In 1961, its demolition began and was completed until 1963.



Chestnykh S., Kettering K. 2009. Białowieża - carska rezydencja. [Białowieża - tsar's residence] Wydawnictwo Hartigrama, Warszawa [in Polish].

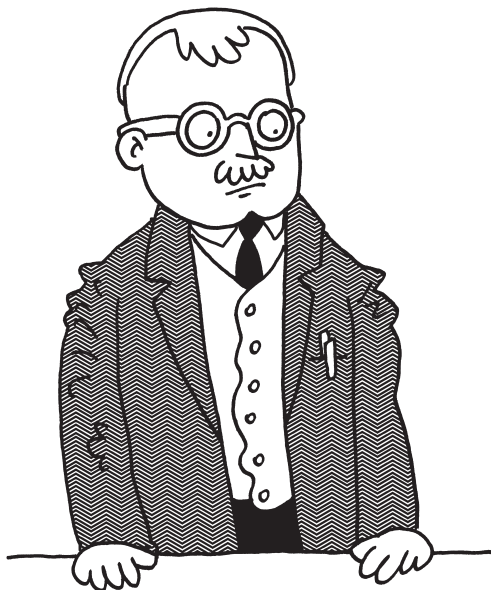
Woland, Mr Kurtz and Bill Sikes are of course classic, literary, and entirely fictional villains. However, in the history of Białowieża Primeval Forest there have been a lot of real bad characters.

In the period of German occupation during World War I, the exploitation of the forest was developed on a wasteful scale (a network of narrow gauge railway was built, as well as sawmills to process timber in Białowieża, Czerlonka, Narewka and Hajnówka, where the largest dry wood distillation factory in Europe was also set up). All in all, approximately 4.5 million m<sup>3</sup> of timber was taken away from the Forest at that time. In 1919 the control of the Forest was handed over to the Polish State Forests, and in 1924 a 10-year contract for the exploitation of the Forest was given to The Century European Timber Corporation. Due to the breach of the contract, after 5 years the cooperation was terminated. By that time, the company, locally called the Centura, had cut down about 2.5 million m<sup>3</sup> of timber.

In 1945, a new Polish-Soviet border crossed the Forest.

3

Władysław Szafer (1886-1970) was one of the best Polish naturalists. After his studies and a period of scientific research in Vienna, Lviv and Munich, he landed in the Austrian army, where, during World War I, he served as a field bacteriologist. In 1917, he was released from the army and joined up with the Jagiellonian University, where, in 1918, he became an associate professor, and, at the same time, a director of the university's botanical garden. During World War II, he was a vice-chancellor of an underground, secret Jagiellonian University, and, after war, in turn, until his retirement in 1960, he was a head of the Botanical Institute of JU and the Institute of Botany at PAS, which he himself set up. He was an author of about 700 publications, a holder of honorary doctorates from three universities, a member of the Polish Academy of Arts and Sciences and the Polish Academy of Sciences.



Professor Władysław Szafer was the head of the scientific expedition to Białowieża Primeval Forest just after the end of warfare in 1919. In fact, however, he had two companions - professor Eugeniusz Kiernik and forestry engineer Jan Kloska. The aim of the expedition was to find out if the bison survived through the world war and to estimate the condition of the Forest environment, which, in turn, was connected with a plan to establish a nature park in Białowieża Primeval Forest, later called a National Park.

Władysław Szafer was one of the founders of the Polish movement of nature conservation. He contributed to the establishment of Polish national parks (including Białowieża National Park, which was set up in 1921 as a forestry „Reserve”, and from the very beginning of its existence professor Szafer called it „the national park”), he was one of the initiators of the bison reintroduction into Białowieża Primeval Forest; he was also a head of pre- and postwar state commissions for the conservation of nature.

4

The historian was Otton Hedemann, a researcher into the past of Białowieża Primeval Forest coming from Vilnius, who in the 1930s published a whole range of articles devoted to this topic. In 1939, already after the author's death, a historical monograph of Białowieża Primeval Forest was released. The significance of his work is even greater due to the fact that archival materials which he worked with today are mostly unavailable as they were destroyed or went missing during World War II.



Hedemann O. 1939. Dzieje Puszczy Białowieskiej w Polsce przedrozbiorowej (w okresie do 1798 roku) [History of Białowieża Primeval Forest in pre-partition Poland (in the period up to 1798)]. Instytut Badawczy Lasów Państwowych, Warszawa. [in Polish]

From the 14th until the end of the 18th century Białowieża Primeval Forest was a royal forest serving a role of hunting grounds for great Lithuanian princes and Polish kings. The first source record about Białowieża Primeval Forest dates back to the chronicle of Jan Długosz, who under the year 1409 made a note of the king Władysław Jagiełło hunting there, at that time using it as food reserve for his army before its battle with the Order of Teutonic Knights

It was as early as in the times of Jagiełło that there were specialized royal services, whose tasks included assistance during the monarchal hunts and the protection of animal backwoods, the most valuable parts of the Forest, where the greatest number of animals lived, and where royal huntings took place. During the reign of the Jagiellonian dynasty royal hunting courts were located in the Forest together with the settlements accompanying them. Archaeological excavations carried out by the Institute of Archaeology and Ethnology PAS and the Mammal Research Institute PAS resulted in the discovery of the remains of the two of such courts: the court in Uroczysko Stara Białowieża dating back to the 2nd half of the 16th century (and so the times of Zygmunt August and Stefan Batory) and the court of the Waza dynasty in the village of Białowieża destroyed in the middle of the 17th century.

The protection of the Forest as royal hunting grounds did not exclude a moderate usage of the forest resources: based on the rights conferred by monarchs, the so-called access rights, beginning from the 16th century (and probably even earlier) it was allowed to scythe hay in the river valleys and on the glades in the Forest, carve beehives in pines, use honey and wax, construct dams and fish in the forest rivers.

By the end of the 17th century new forms of usage appeared in the Forest: burning wood tar and birch tar, production of potash, and in the 18th century also production of charcoal and felling timber for sale. However, there were attempts to limit the scope of this usage so it was not harmful to animal backwoods in the Forest and to the most valuable animal inhabiting these forest – the European bison.

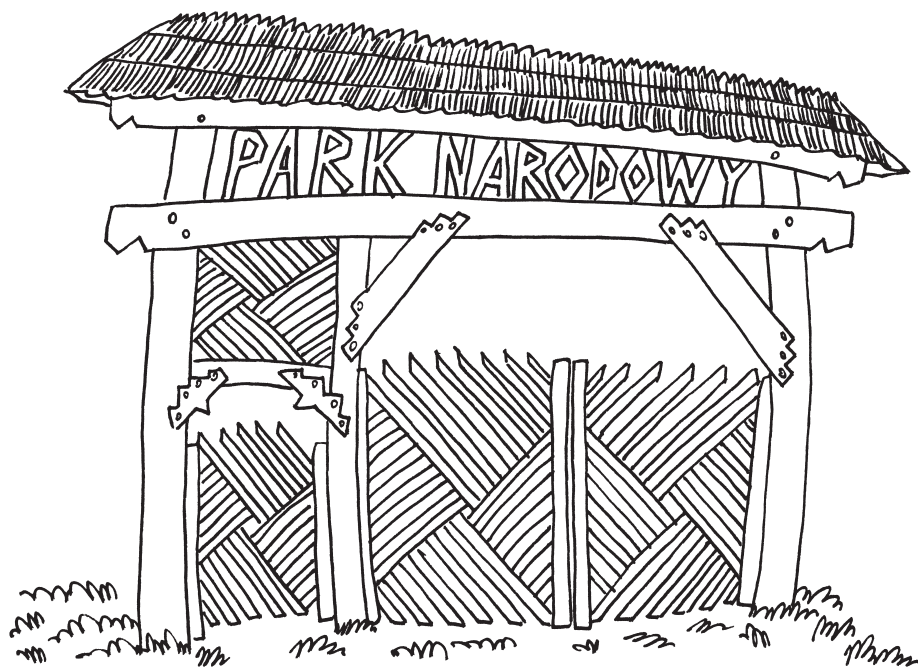


Samojlik T. (ed.) 2005. Conservation and hunting. Białowieża Forest in the time of kings. Mammal Research Institute Polish Academy of Sciences, Białowieża (available online in Google Books).

After a visit to Białowieża, profesor Władysław Szafer, head of the State Commission for the Conservation of Nature, developed a project for the establishment of a national park in Białowieża Primeval Forest and submitted it to authorities. In December 1921, it was decided that in the best preserved central part of the Forest, in the bifurcation of the Hwoźna and Narewka rivers, a forestry „Reserve” would be set up of an area of 4594.56 ha. The fragment of 1,061.11 ha was to be included in the area of strict protection. The forestry „Reserve” operated within the forestry of Białowieża, but, from the beginning, in all the publications and documents signed by prof. Szafer it was referred to as the „national park”. It also fulfilled the requirements of an international definition of a national park as developed by the World Union for Nature Conservation, so the year 1921 is regarded as the beginning of the existence of Białowieża National Park. Poland was the fourth country in Europe to establish a national park.

The official name of National Park in Białowieża was in use since 1932. It is to this period that, among others, a wooden gate to the area of strict reserve in Białowieża National Park dates back. In 1947, the park was restituted under its present name.

In 1996, Białowieża National Park was enlarged to include 10,517 ha. 5,725.75 ha is included in the strict protection area, and 4,438.20 ha in the active protection area, with 353.32 ha in the landscape protection area. The park is surrounded by the so-called buffer zone - a protection zone including 3,224.26 ha of managed forests.



Okółów C., Karaś M., Bołbot A. (ed.) 2009. Białowieża National Park: know it, understand it, protect it. Białowieża National Park, Białowieża.

These words (as well as some other professor Szafer's statements included in this comic book) are taken from an article published in 1920 in a journal „Orli Lot” [Eagle's Flight]. In accordance with professor Szafer's account and testimonies of other people visiting Białowieża in 1919, the year is recognized as the date when bison died out in Białowieża Primeval Forest.

The history of bison is inextricably linked to Białowieża Primeval Forest. The largest European terrestrial mammals, originally occurring in nearly whole Europe, already in the 18th century lived in the forests of Białowieża only (not counting the Caucasian bison, which survived in the mountains of Caucasus until 1927). Presumably, it was not one factor that it was decided by, but rather a fortunate coincidence of several circumstances. Bison were, at least from the Jagiellonian times, protected animals reserved for the needs of royal huntings. Owing to traditional utilization of meadows in Białowieża Primeval Forest, they could feed on hay left on meadows, and from 1700 they were additionally fed by royal services, which were instructed to leave some haystacks especially for bison. In addition, from 18th century, royal wardens of the Forest checked on the size of the bison population by conducting their countings every winter. The protection started in royal times was continued following the third partition of Poland, when the Forest became the possession of tsarist Russia. Additional feeding of bison was still continued in winters. In addition, wolves and bears were intensively hunted for, which led to their extinction (it was then believed that they posed the greatest threat to the existence of bison). The size of the bison population was growing and reached a record high of almost 1900 specimens in the middle of the 19th century.

It was only World War I that brought about a dramatic change. Killed off in large numbers by soldiers, deserters and poachers bison eventually died out. Fortunately, in zoological gardens and husbandries around the world there were still several dozen animals left, with most of them originating from Białowieża.

On the basis of the survived specimens (to be more precise 12 of them) the population of the bison was reconstructed. The process, called restitution, had two phases: until 1952 bison were bred in reserves of captive breeding (including those in Białowieża Primeval Forest) and in zoological gardens, and then they were set loose.



Kraśińska M., Kraśiński Z. 2007. European Bison. The Nature Monograph.  
Mammal Research Institute Polish Academy of Sciences, Białowieża.

The rutting season of deer begins at the end of September and lasts until the middle of October. This is a period when stags compete with each other for females. And it must be added that the competition is very fierce and loud. Stags do not tolerate the presence of other males then and try to secure themselves an exclusive access to a group of females. The competition consists in roaring, and occasionally, also fighting. Before every fight both rivals carefully estimate their opponent's force - the risk of sustaining severe injuries is very high. During the rutting season stags practically do not eat, which results in the loss of even up to 15% of their body weight.

The deer diet in Białowieża Primeval Forest to a large extent consists of shoots, bark, leaves and fruit of trees and bushes, supplemented only with herbaceous plants, grasses and sedges. In the case of the bison diet the proportions are reverse. Also, sexual dimorphism is more visible in deer than in bison - stags are nearly twice as big as females - hinds. This difference is also more emphasized with deer antlers. Hinds live in small groups consisting of adult females with young, while stags prefer to live alone or in small groups up to 3 specimens.

In fact, years 1915-1920 also brought nearly total destruction of deer population in Białowieża Primeval Forest.



Kamler J.F., Jędrzejewska B., Miścicki S. 2004. Red deer - a tale of two deer. In: Essays on mammals of Białowieża Forest. Jędrzejewska B., Wójcik J.M. (eds.) Mammal Research Institute PAS, Białowieża.

This is the so-called „Dehnel effect”, discovered by the founder of the Mammal Research Institute, Polish Academy of Sciences, professor August Dehnel (publication in 1949). It is a phenomenon of a periodic decrease in the height of the skull and size of internal organs, and, consequently, the weight of the whole body of a shrew.

Five species of soricidae occur in Białowieża Primeval Forest: Eurasian pygmy shrew, Laxmann's shrew, common shrew and Mediterranean and Eurasian water shrew. They live in wet areas - riverside riparian forests, marshy alder swamp forests, meadows and reed fields in river valleys.

Shrews are active all year round. Most of the day they are preoccupied with feeding - due to a very high rate of metabolism they must eat almost all the time, which makes them the most voracious mammals in the world. They can eat even three times as much as they weigh per a day.

Such frequent feeding would wear away the teeth of shrews if it wasn't for their specific adaptation - on the tips of their teeth there are compounds of iron, which, on the one hand, colour their teeth red, and on the other hand - protect shrew teeth against being worn away.



Rychlik L. 2004. Competition and coexistence of shrews. In: Essays on mammals of Białowieża Forest. Jędrzejewska B., Wójcik J.M. (eds.) Mammal Research Institute PAS, Białowieża.

In a local tradition dating back to the 19th century, the Zamczysko range, and, to be more precise, the hill located in its centre, was connected with the castle of great Lithuanian dukes. The whole Białowieża Primeval Forest was to be named after its white tower [Białowieża is Polish for „White Tower“], and the proof for the existence of the building in this place were to be stones scattered around the whole slope.

Although this is a worthy and inspiring legend (the Zamczysko range was visited by famous Polish writers Sienkiewicz, Głogier and Orzeszkowa), it was as early as at the beginning of the 19th century that an event took place which proved it to be false. As a result of the story told by a peasant from the village of Tuszeń, who allegedly saw a cellar full of gold in the Zamczysko range, the place was repeatedly and systematically dug over. No treasure was discovered, but more than a dozen „rotten skeletons“ were found instead.

In autumn 2003, the Mammal Research Institute PAS and the Institute of Archaeology and Ethnology PAS organized joint archaeological excavations in the Zamczysko range. The research resulted in the discovery of an early mediaeval cemetery. The people who were buried in the Zamczysko range had been equipped with head-band ring pendants, an ornament popular with Slavs in the early middle ages and a tiny clay pot. The archaeologists also found a number of smaller fragments of ceramics and some remains of burnt wood.

Both the relics found and radiocarbon dating of the people buried there indicated that the Zamczysko cemetery dates back to the 11th century AD.

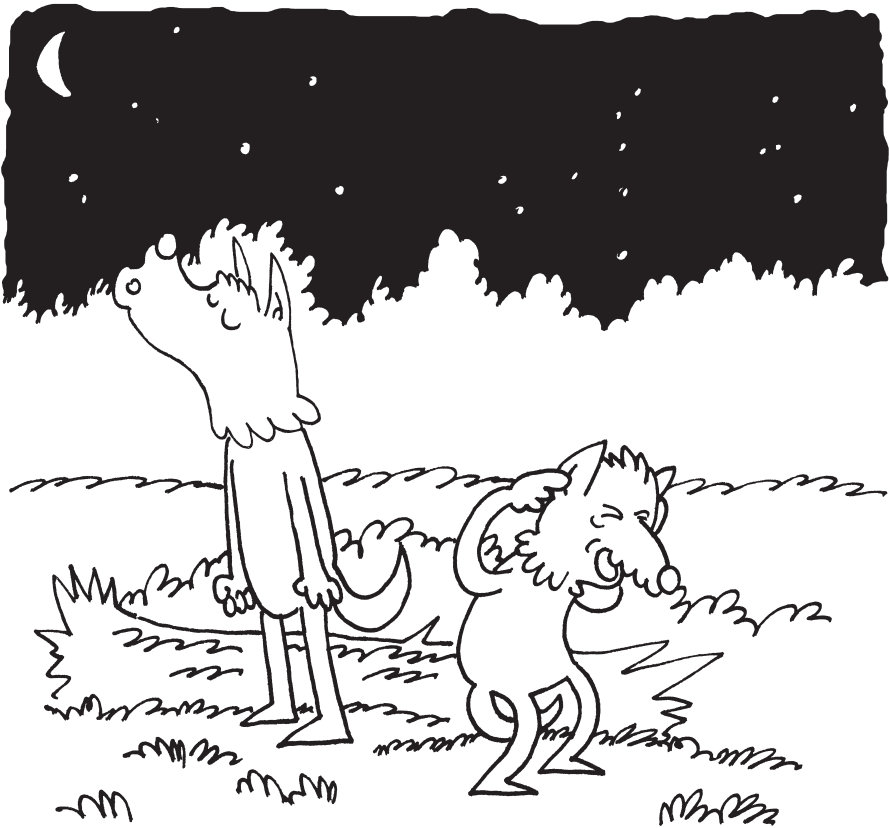


Krasnodebski D., Samojlik T., Olczak H., Jędrzejewska B. 2005. Early mediaeval cemetery in the Zamczysko Range, Białowieża Primeval Forest. *Sprawozdania Archeologiczne* 57.

The diet of wolves of Białowieża Primeval Forests consists of a whole range of species: ungulates such as wild boar and roe deer, as well as beavers, raccoon dogs, hares, foxes, even rodents and frogs. However, wolves definitely prefer hunting for deer which are their basic food.

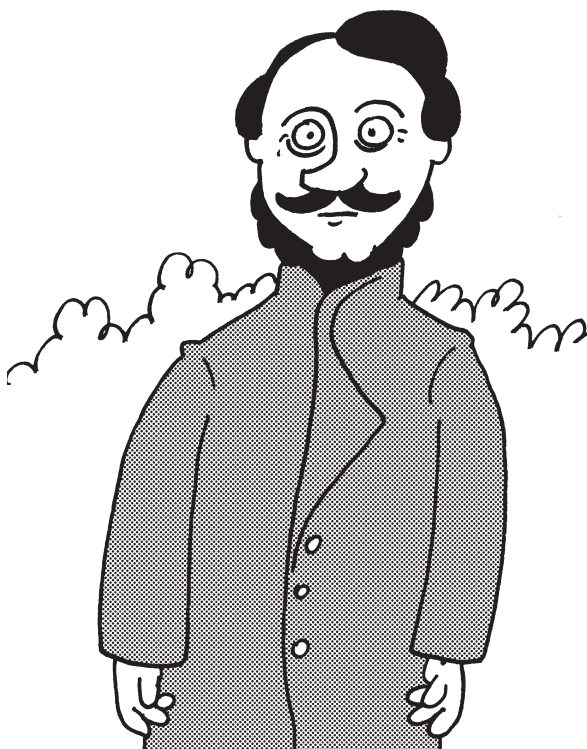
Wolves live in groups called packs, usually of 4-7 specimens each. A pack is led by the alpha pair: a dominant male (Alpha-male) and female (Alpha-female). Apart from them, the group consists of their offspring- puppies from the most recent year and cubs from previous years which haven't left the pack.

Presently, the wolf is a protected species, but in the past the actions aimed at killing it off used to be organized (e.g. in years 1880-1925 or 1946-1970), which reduced the population size to zero. Each time, however, wolves were able to return to Białowieża Primeval Forest. It also seems that they were able to rebuild the size of their populations much faster in periods of wars.



Jędrzejewska B., Jędrzejewski W. 1998. Predation in vertebrate communities. The Białowieża Primeval Forest as a case study. Springer-Verlag, Ecological Studies 135. Berlin-Heidelberg-New York.

Eugeniusz de Ronke (1790–1875), descendant of the Swiss who settled in Russia, a tsarist officer and graduate of studies in environment and forestry in Petersburg, took the post of a main forester of Białowieża Primeval Forest in 1820. He married a Pole, learnt the Polish language and quickly became polonized. His relationship with his new mother country was so strong that when the November national uprising spread through this territory he became its leader. As a superior of all Forest wardens and their subordinate riflemen he ordered them to get armed and join the uprising. The division of insurgents in Białowieża Primeval Forest included about 300 people in total and was not capable of putting up resistance to tsarist divisions. At the end of May 1831, most insurgents left the Forest. After the fall of the uprising, de Ronke went to Prussia, and then to France and Switzerland. He attempted to enter Polish territories several times on foot. He was expelled by Prussian police, came back again, was captured and expelled again, but he stubbornly returned the third time in 1840. He then managed to obtain permanent residence and took over the running of state forests in the Grand Duchy of Poznań.



De Ronke was an astute observer of the Forest nature, which he expressed in a polemic published in a Warsaw newspaper with the description of the Forest by the then greatest authority in forestry – baron Juliusz Brincken. In the later period de Ronke was also an author of forestry textbooks and specialist articles.

According to the present state of knowledge, de Ronke never came back to Białowieża Primeval Forest. As his contemporary Piotr Szreter wrote „it's a highly distinguished old man of cheerful face and heart, flawless character, he lived by his memories of Lithuania, Białowieża Primeval Forest and the 1831 uprising until his very last moments”.



Daszkiewicz P., Jędrzejewska B., Samojlik T. 2004. Puszcza Białowieża w pracach przyrodników 1721–1831. [Białowieża Primeval Forest in works of naturalists 1721–1831] Wydawnictwo Naukowe Semper, Warsaw [in Polish].

The bison has been successfully saved from extinction and restituted to Białowieża Primeval Forest (today in its Polish part there are approximately 450 representatives of this species, with more or less 4 thousand specimens worldwide). However, it does not mean that the threat is over. A very limited territory on which bison occur, the isolation of individual herds, low immunity to diseases of these animals, and, finally, the fact that all contemporary bison come from only few specimens - all these factors mean that the matter of saving the bison cannot be considered as closed.

In order to prevent the problems which might in the future threaten the survival of the species, to guarantee the stability of the bison population in Białowieża Primeval Forest, finally, to try to make good use of the chances which the presence of the bison in Podlasie (north-eastern Poland) carries, and, at the same time, to be able to deal with the problems connected with it, the Mammal Research Institute PAS initiated the programme „Bison” and is implementing the project „Kraina Żubra” [Bison Land]. The programme is aimed at combining effective protection of the bison with regional development, which is to be based on natural and cultural values of Podlasie.

The purpose of the activities within the frames of the project is to create ecological corridors through which bison could spread in forests outside Białowieża Primeval Forest and integrate with the herd of bison in Knyszyńska Forest which is presently isolated. New feeding places are also established outside the points traditionally used for this purpose, which is to encourage bison to use wider areas and reduce their dependence on winter feeding.



<http://www.krainazubra.pl>