



Let's talk about KITOKITO TOYAMA

高校生とやま英語表現ハンドブック

# Let's talk about KITOKITO TOYAMA

English Handbook of TOYAMA  
for High School Students  
高校生とやま英語表現ハンドブック



富山県教育委員会



富山県教育委員会  
Toyama Prefectural Board of Education



## 発刊によせて

富山県知事 石井 隆一

私たちのふるさと富山県は、古くは、水害や豪雪などの災害も多く貧しい県の1つでしたが、先人の英知と努力により、幾多の困難を乗り越え、今では社会資本整備も進み、住みやすさなど幅広い分野で全国トップクラスの評価を受けるようになりました。

グローバル化が進展する中、若い皆さんが根無し草にならず、夢や情熱、高い志を持って生きていくためには、こうしたふるさとの自然や文化、先人の知恵を学び、生まれ育ったふるさとに愛情や誇りを持つことが大切です。

また、ふるさとを英語で世界に発信できる力を身に付けることは、世界の人々と相互に理解、尊重し、協力するための大切な出発点となります。

本書をきっかけに、皆さんが、富山県の魅力を学び、親しみ、ふるさとへの誇りや郷土への愛着を持って、日本や世界を舞台に活躍する人材として大きく羽ばたかれることを期待しています。

## Message from the Governor

Ishii Takakazu, the Governor of Toyama Prefecture

Toyama Prefecture, our hometown, used to be a poor prefecture with many disasters, like floods and heavy snowfalls. However, our ancestors got over these difficulties through their wisdom and efforts, and today, with its social infrastructure highly developed, Toyama ranks as one of the top prefectures in various fields, such as having a comfortable environment in which to live.

In order for you, young people, to live vigorously with dreams, passion and ambitions, and to keep your local identity, in the global society, it is very important to learn the nature and culture of our hometown and our ancestors' wisdom, and to have love for and pride in the prefecture where we were born and grew up.

In addition, acquiring the ability to introduce our hometown in English is the first step toward mutual understanding, respect and cooperation in the world.

I sincerely hope this book will help you learn and get familiar with the charms of Toyama Prefecture, and go forward in the future with love for and pride in Toyama Prefecture, our hometown.

## はじめに

皆さんは、ふるさと富山に誇りをもっていますか？

県外の知人、友人等に、富山のことを自信をもって紹介することができますか？

皆さんは、立山をはじめとする自然の雄大さや驚くべき仕組み、災害克服に力を尽くした先人の英知と努力、長い歴史に育まれた伝統文化、そして地元ならではの食文化など、ふるさとのことを学ぶにつれ、富山には、興味深いこと、誇れることがたくさんあることにきっと気が付くと思います。

本書は、これからの将来を担う皆さんに、ふるさとを再認識し、興味をもってもらい、さらには楽しく英語を学びながら、ふるさとを世界の人々に紹介できるようになってもらいたい、そういう願いを込めて作成したものです。

皆さんには、「もっとふるさとのことを知りたい」、「早く外国の人に英語で富山を紹介してみたい」、そんな気持ちになってもらえれば幸いです。

## Introduction

Are you proud of your hometown, Toyama?

Do you introduce Toyama to people or your friends outside the prefecture with confidence?

As you learn about Toyama's magnificent nature, including Tateyama, and the amazing mechanism of nature, our ancestors' wisdom and endeavors to overcome disasters, traditional culture developed over a long history, our own local food, and so on, you will surely understand there are many things you can be interested in and proud of in Toyama.

We hope this book will help you, our future leaders, to realize the excellence of Toyama and get interested in it. Moreover, we want you to enjoy learning English and learn to introduce Toyama to people from all over the world.

If you come to feel, "I want to know more about my hometown," or "I want to explain Toyama to people from other countries in English now," that will be a great success of this book.

## How to use

### この本の使い方

〈本文編〉

**テーマを見つけよう！**

テーマは全部で7項目。興味のあるテーマを探してみましょう。

**じっくり読もう！**

テーマについて、いくつかの点から解説しています。

**本文の要点をチェックしよう！**

日本語で書かれた要点を頭に置いて、英語の本文を読んでみましょう。

**話してみよう！**

富山を英語で紹介する実践編です。4人の高校生がテーマに合わせた会話を展開します。

**健太**  
野球部に所属し、甲子園出場を目指す17歳。得意科目は数学と体育。富山市生まれ。

**さくら**  
読書と料理が大好きな17歳。得意科目は日本史と国語。高岡市生まれ。

**マイク**  
工作や機械いじりなどものづくりが大好き。日本の工芸品に関心を寄せる16歳。サンフランシスコ生まれ。交換留学で富山に滞在中。

**エミリー**  
絵や映画、文学など日本の文化に興味津々。バレーボールの競技経験あり。17歳。NY生まれ。交換留学で富山に滞在中。

**リーディングガイドを活用しよう！**

一般の辞書で見つけにくい表現をのせています。

〈資料編〉

**行ってみよう！**

興味がわいた場所に出かけてみましょう。百聞は一見にしかずです。

**統計から富山を眺めてみよう！**

さまざまな統計の向こうから、富山の素顔を知ることができます。

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## 1 The circulation of precious water

### Unique geography and climate 世界的にユニークな地形と気候

Toyama is a compact prefecture, lying within 90km from east to west and 80km from north to south. There are high mountains, the Northern Alps, with altitudes of 3,000m on the east side, and Toyama Bay, with a depth of about 1,000m on the north side. Within only several dozen kilometers, there is a difference in elevation of 4,000m. This is a very unique feature in the world.

The annual amount of rainfall is over 2,000mm, which is among the largest amounts in Japan. In the mountain area the amount reaches 6,000mm. This is also very unique in the world.

### Water and the sea connected deeply with forests

森あってこそ水と海

Forests covering 67% of the prefectural land are called “the green dam.” It has various functions to control flooding or to prevent sedimentation disaster. The water filtered by the dam is utilized for agriculture and industry. The nutritious water flowing through the dam is very good for the fish in Toyama Bay. The forests are a valuable asset. Toyama Prefecture introduced a new taxation, “forest protection tax,” in 2007. The aim of the taxation is to conserve and enrich the forests by the prefectural people.

### Toyama Bay, mysterious sea 神秘の海、富山湾

Toyama Bay is called “mysterious sea” because a mirage occurs and a trace of the world's oldest forest was found there. On the bottom of the bay, the submarine groundwater rich in nutrient salt spouts substantially. This groundwater originates in rainwater falling into the forest. Then, the water penetrates into the soil and spouts from the sea bottom in several decades.

Not only nutritious water from the forest, but also the Tsushima Current flows into Toyama Bay. The water layer below 300m is deep ocean water. It is low in temperature, pure, and rich in nutrient salt. The geographical formation of Toyama Bay is complicated. Many kinds of fish and sea shells live there. It is a place where a lot of firefly squid gather, the only place for white shrimp fishing in the world and also a place for yellowtail fishing by fixed nets.

#### 蜃気楼



Mirage in Uozu  
魚津の蜃気楼

#### A mirage

A mirage is a visual phenomenon caused by the difference in temperature, in which light rays are bent to float or stretch a view of the opposite shore or a ship in the sea. The coast in Uozu City is one of the famous spots in the world for seeing a mirage.

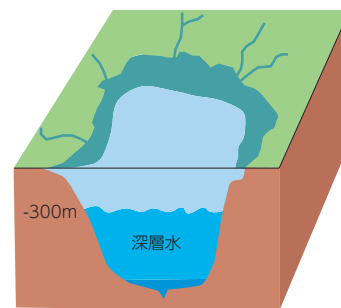
かけがえない命の水の循環



- 富山県の地形と降水量の特徴を説明してみましょう。
- 豊かな森林と富山湾はどのような関係がありますか。
- 富山湾にはなぜたくさんの種類の魚介類がすんでいるのでしょうか。



Alluvial fan in Kurobe 黒部川扇状地  
(提供 菅野印刷工業)



Geography of Toyama Bay  
富山湾の地形

#### Reading Guide

- difference in elevation 高低差
- forest protection tax 水と緑の森づくり税
- deep ocean water 海洋深層水
- fixed net 定置網



#### dialogue 話してみよう!!



=マイク



=健太

Kenta explains about nature in Toyama to Mike, who is a student from San Francisco, the USA.



How beautiful the Tateyama mountain range is!

We can look up at the Tateyama mountain range quite nearby. We are very proud of it.



Surprisingly, the high mountains are very close to the sea.



Yes, they are. Toyama is a very compact prefecture and it can fit into an area 100 kilometers square.



I see. By the way, in San Francisco, we hardly have any snow. So I was surprised it snows a lot in Toyama.



Compared to other places in Japan, it also rains a lot here. Do you know the rain that falls on the mountains and plains spouts up from the sea bottom?



Oh, really? So, the circulation of precious water is working. I heard Toyama Bay is very mysterious, and I think it's true. That reminds me. You see a visionary town over the sea, don't you?



That is a mirage. But it's not easy to see one. By the way, there are various kinds of fish living in Toyama Bay.



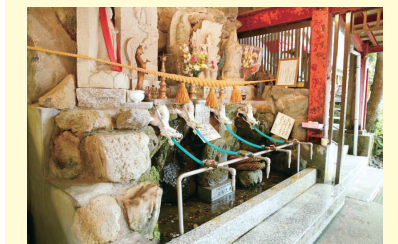
I know some of them. Firefly squid and white shrimp. I just ate some yesterday at a sushi restaurant. They were very fresh and delicious!

#### column

### The greatest number of the best waters in Japan

全国最多の名水の地

Among “the Selected 100 Exquisite and Well Conserved Waters” and “the Selected 100 Exquisite and Well Conserved Waters of the Heisei Period” by the Ministry of the Environment, 8 places are in Toyama Prefecture. This is the largest number from one prefecture. Local residents or groups clean up water pumping areas. The water and environment are protected by the local people. Many people come to get the water.



Holy water in Anantan 穴の谷壺水

## 2 Efforts to live in harmony with nature 自然と人間の共生の努力

### The first World Cultural Heritage site in which people's lifestyle harmonized with nature was recognized

人々と自然との共生が初めて評価された世界文化遺産

The historic village of Gokayama was registered as a World Cultural Heritage site in 1995. Among the Gassho-style houses in the village, the oldest one was built about 400 years ago. Trees planted on the steep slope of the mountain have been bent for several decades because of heavy snow. These trees peculiar to the area are utilized for Gassho-style houses, which are characteristic of this area and are very strong.

It is very remarkable that people's lifestyle harmonized with nature in the village was appreciated in the selection of this site. This was the first time in the history of the World Heritage project.

### The white diamond and the dams in the plain fields

水を保つ機能「白いダイヤモンド」と「大地のダム」

Snow accumulated in the Tateyama mountain range is called "the white diamond." It is the source of water flow which never stops all year round.

People in Toyama have always utilized this abundant water for various industries over the ages. In 2006, the Ministry of Agriculture, Forestry and Fisheries selected the 100 exquisite agricultural waterways. From Toyama Prefecture, 4 waterways were selected. The waterways in Toyama Prefecture have expanded like a net. For the last several hundred years, they have been playing important roles in providing water to fields for agriculture including rice cultivation, preventing fires, melting snow on the streets, and conserving the ecological system. Especially, rice fields function as dams in the plain fields where water penetrates into the soil slowly and is kept as groundwater.

### Activity to protect the forest of satoyama and the water sources

里山の森と水源を守る活動

The activity of *Kusakarijijigun* started in 1974. This was the first proposal-based civil movement in Japan. It was an alternative to aerial herbicide application to the forest in Toyama Prefecture. Adachihara Toru called people to help to cut grass, *kusakari* in Japanese. 252 young people came to Toyama from all over the country. Since then, for 40 years, this activity has been held every summer. People of various generations cut grass for about 10 days. The work is very hard under the blazing sun.

The activity has been accepted and conducted to protect the forests and water sources. It is also an opportunity for people to get a sense of accomplishment, meet and interact with each other, and understand the forest. The activity was made into a movie in 1997. This activity has attracted a lot of appreciation all over the country and the world.

#### Point

- 五箇山合掌造り集落が世界文化遺産に選ばれた意義は何でしょうか。
- 雪解け水はどのように活用されていますか。
- 「草刈り十字軍」が始められたきっかけは何ですか。



Ainokura Village in Gokayama  
五箇山の相倉合掌造り集落



Sankyo-son in Tonami 砺波の散居村

#### Reading Guide

Gassho-style house 合掌造り(の家)  
Ministry of Agriculture, Forestry and Fisheries 農林水産省  
*Kusakarijijigun* 草刈り十字軍  
proposal-based civil movement  
提案型の市民運動  
Adachihara Toru 足立原貴(草刈り十字軍提唱者)



dialogue  
話してみよう!!

=さくら =エミリー

Sakura and Emily, who is from New York, visit Gokayama, Nanto City.

Many World Cultural Heritage sites are archeological locations, but people actually live their daily lives in Gokayama.

There's so much green around here.

Those trees were planted by village people. They can be utilized as fuel. When a tree is big enough, it is used for a pillar of the houses here.

People's lives harmonize well with nature. I want to have a lot of experiences in Toyama's nature.

Then, why don't you join *Kusakarijijigun*, a mowing crusade. It was started in Toyama.

Crusade? Against whom?

No, no. That's a volunteer activity to protect the forest and water sources. Volunteers stay in the mountain for 10 days during summer to cut grass. Their activities were made into a movie.

Interesting!

It is surely hard work, but you can learn a lot of things on site, I heard.

#### column

### NOWPAP, the UN organization to protect the environment

環境保全の国連機関 NOWPAP

NOWPAP stands for "Northwest Pacific Action Plan." Its head office was established in Toyama City in 2004. This is the first UN office on the Japan Sea. NOWPAP Toyama Office is working on protecting the marine environment together with its partner, the Busan Office, in Korea.



The UN flag by NOWPAP  
NOWPAP国連旗

### 3 Tateyama and Kurobe, treasures of Toyama

富山の宝 立山・黒部

#### The world-famous tourist site in the mountain 世界有数の山岳観光地

The Tateyama Kurobe Alpine Route is a tourist route from Toyama City to Omachi City, Nagano Prefecture, through the Northern Alps. You take various means of transportation, such as a cable railway, a highland bus, a trolley bus, and a ropeway. On the way you can enjoy the beautiful scenery of a primeval forest and the permanent snow.

There is a waterfall, Shomyodaki, which is the highest in Japan at 350m. Only in the snow melting season there is another waterfall, Hannokidaki, at the right side of Shomyodaki. Its drop is 500m. These two falls, together, look like a V shape.

In Bijodaira there is a primitive forest with over 1,000 year-old trees. Midagahara and Dainichidaira, registered wetlands under the Ramsar Convention, are very rich in alpine flora. At the final station of the highland bus, Murodo, there are mountains over 3,000m high before your eyes. You see a very beautiful reflection of Tateyama on the surface of the pond, Mikurigaike. There are many sightseeing spots.

#### The wonderful nature and artistic beauty 素晴らしい自然と造形美

The Kurobe Gorge Railway starts from Unazuki Onsen and reaches Keyakidaira. The track is about 20.1km long and runs halfway through the mountains, looking down at the deepest V-shaped valley in Japan at 1,500m. On the tram, which was once used as a railroad car for construction of tunnels and dams, you will feel a breeze and enjoy the nature of Kurobe Gorge, such as verdure in early summer, the permanent snow in summer, and colored leaves in autumn.

The track has many tunnels and bridges. One of the bridges is 60m high. Along the track, there are wonderful spots for colored leaves and the permanent snow. You can enjoy magnificent landscapes one after another. There is an open air spa on the riverside where hot water springs dynamically.

#### The only glaciers in Japan 立山にある日本唯一の氷河

The three snow ravines in the Tateyama mountain range were confirmed academically as existent glaciers for the first time in Japan. Experts presume that in Gozenzawa Gorge, on the east face of Mt. Oyama, there is ice formed more than 1,000 years ago.

This discovery was made by the experts of Tateyama Caldera Sabo Museum through research. In the Far East region, Tateyama is the southern limit of the glacier.

A glacier is a large body of ice formed by accumulation of snow and ice, and moves very slowly over many years. Compared to other mountains with glaciers in the world, Tateyama is relatively low in latitude and its temperature is relatively high. However, it has satisfied all the conditions for forming a glacier, such as a lot of accumulated snow and avalanches.

**Point**

- 立山黒部アルペンルートからはどんな景観を楽しむことができますか。
- 黒部峡谷鉄道の沿線の見どころを挙げてみてください。
- 立山に日本唯一の氷河が存在するのはなぜでしょうか。



Otani area of snow  
雪の大谷 (美女平 天空ロード)



Kurobe Gorge Railway 黒部峡谷鉄道

**Reading Guide**

Ramsar Convention ラムサール条約



Mike and Kenta talk about going to Tateyama.

Why don't we go to Tateyama this weekend? We can take a cable car and a highland bus on the Tateyama Kurobe Alpine Route.

That sounds interesting! I like mountains and vehicles very much.

I'm thinking of climbing Mt. Oyama from Murodo, the final station of the bus. How about it?

OK! I heard that we can see a glacier from Oyama. Is it true?

Yes. That is the first glacier in Japan. I thought glaciers existed only in the Alps in Europe or the Himalayas, but there is a glacier in Toyama in Japan. It is a big surprise.

I want to see it. It's so interesting!

I've got an idea. You like vehicles, so let's take a trolley train in the Kurobe Gorge. Some cars are canopy trucks. It goes to the very deep valley, about 1,500m deep. You can enjoy a lot of beautiful landscapes.

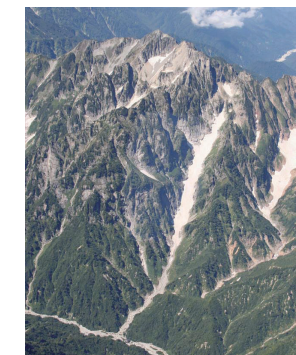
It sounds like a really interesting adventure!

#### 歴史ある水辺の公園 Waterside parks with historical background

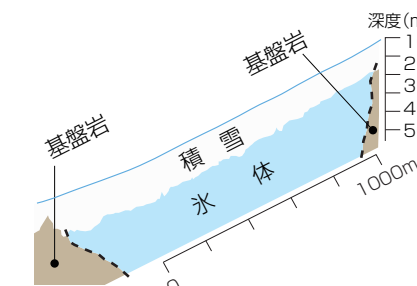


Fugan Canal Kansui Park in Toyama City 富岩運河環水公園

A part of the castle of the domain of Toyama remains as Toyama Joshi Koen (park). Takaoka Kojo Park used to be Takaoka Castle. There are moats with lovely waterfowl on the water. There is another park, Fugan Canal Kansui Park. It used to be part of the Jinzu River. Later, it was used as an anchorage for ships in the Fugan Canal. At present, many people enjoy jogging, walking or canoeing there.



San-no-mado Snowy Gorge and Komado Snowy Gorge  
三ノ窓雪渓 (左)・小窓雪渓

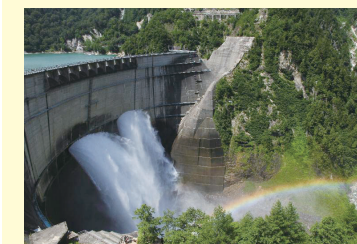


Cross sectional view of the ice body in San-no-mado Snowy Gorge  
三ノ窓雪渓の氷体断面図

#### column Difficulties of constructing Kurobe Dam

##### 黒部ダム建設の苦難

The history of constructing Kurobe Dam is full of unprecedented hardships. While constructing the 3<sup>rd</sup> dam, the structure was swept away by an avalanche and dynamite was ignited spontaneously by high heat. Furthermore, while constructing the 4<sup>th</sup> dam, there was a crushed zone from which a huge amount of water sprang. There were certainly many problems, however, they were solved by new technology every time. It was a really human drama. The story of the construction has been told in novels and movies.



Kurobe Dam discharging water for tourists 黒部ダムの観光放水

chapter **2** **Safety & Disaster Prevention**  
第2章 安全・防災

**1 Forests and dams to prevent landslides**

山々の崩れを防ぐ森と堰堤

**The history of disasters and flood control** 災害と治水の歴史

In 1858 the Hietsu Earthquake, with a magnitude of 7.1, caused the mountains of Otonbi and Kotonbi, which were part of the Tateyama Caldera, to collapse. A huge amount of soil was discharged and closed the Yugawa River and the Magawa River. These rivers gave way twice. Serious floods of rocks and mud struck the Toyama plain.

Johannis de Rijke, a Dutch civil engineer, came to Toyama to repair the Joganji River in 1891. However, he was so astonished by the terrible scene of the collapse in the Tateyama Caldera that he could only say, "We can only cover the whole mountain with copper plates." In 1906, the sabo work was started by Toyama Prefecture, but it was very difficult construction. A huge amount of money was required for flood control work. It was beyond the budget of one prefecture.

**A large sabo dam to control sediment and water**

山と水を治める巨大堰堤

Finally, in 1926, the sabo work was started as a national project after Toyama Prefecture had made budget requests for years. In 1939, Shiraiwa Sabo Dam, planned by Akagi Masao, later called "the Father of Sabo," was completed. Since Shiraiwa Sabo Dam is the highest in Japan and shows one of the peaks of sabo technology, it was so highly appreciated as to be designated as an important national cultural property. There are two more important sabo dams. One is Hongu Sabo Dam, which was constructed at the same time. Its total storage capacity is the biggest in Japan. The other one is Dorodani Sabo Dam, which is now covered with thick green. These three dams have been playing the most important roles in protecting people's lives and assets in Toyama.

**Japanese technology for disaster prevention and environmental protection** 防災とエコを実現した日本人の技術

Along with the Tateyama sabo dam construction, hillside work was also conducted to restore the natural green area. The concept of this sabo technology is to harmonize sabo with nature. It is highly appreciated in the world. Now some efforts are being made by Toyama Prefecture in order for Tateyama sabo to be registered in the list of World Heritage sites. Toyama is recognized as the birthplace of the sabo technology. Sabo is an international word now. The Tateyama sabo construction is still carried on to prevent disasters caused by the sediment discharged from the Tateyama Caldera.

**Point**

- 飛越地震はどのような被害をもたらしましたか。
- 国の重要文化財に指定されているのは何という砂防堰堤ですか。
- 立山砂防が防災とエコを実現したといわれるのはなぜでしょうか。



Tateyama Caldera 立山カルデラ



Shiraiwa Sabo Dam 白岩砂防ダム

**Reading Guide**

flood control 治水  
the Hietsu Earthquake 飛越地震  
Tateyama Caldera 立山カルデラ  
the Yugawa River and the Magawa River 湯川と真川(常願寺川支流)  
sabo 砂防



=マイク =さくら

Sakura and Mike visit Tateyama Caldera Sabo Museum. They talk about sabo technology, which Toyama Prefecture is proud of.

There was a big earthquake in Toyama a long time ago, wasn't there?

Yes. That was the Hietsu Earthquake. The earthquake caused the Tateyama Caldera to collapse. A huge amount of soil flowed into the Joganji River and caused severe damage.

I know the river used to be called "the roughest river in Japan." How do you manage it?

In the Tateyama sabo construction, the sabo dams on the steep slopes serve to stabilize sediment and greening the area is also being carried on. It is a mix of Western technology and Japanese wisdom.

Wonderful! It serves a double purpose, disaster prevention and nature protection.

Sabo construction is still going on to protect the Toyama plain.

Sabo is an international word now.

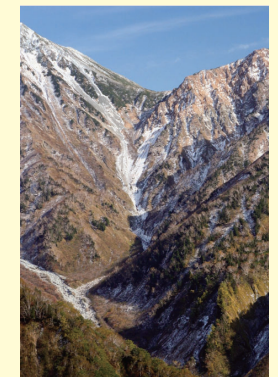
Half of Shiraiwa Sabo Dam, the highest in Japan, is covered with woods. It is an important national cultural property. Toyama Prefecture is trying to have Tateyama sabo registered in the list of World Heritage sites.

You should be proud of the harmony of the sabo technology and nature. I hope it will be registered in the list.

**column** **People who challenged steep mountains**

天険の道に挑んだ人々

In winter, 1584, when Sassa Narimasa was surrounded by an enemy, he decided resolutely to go to a steep snowy mountain through Zara Pass in Tateyama in order to form an alliance with Tokugawa Ieyasu in Hamamatsu. The route which Sassa is said to have taken was arranged and opened as Tateyama-Shindo in the Meiji Period. Many tourists, including Sir Ernest Mason Satow, a British diplomat, visited this route. Although the route was broken a few times by an avalanche or a landslide, Walter Weston, a mountaineer, and Percival Lowell, an astronomer, visited the route afterward.



Zara Pass ザラ峠



## 2 Overcoming disasters and modern city planning

災害の克服と近代都市建設

### Protecting the prefecture from fire 火災に強いまちづくり

In Toyama Prefecture many big fires occurred in the past, in each of which over 1,000 houses were burned down. In 1831 the Great Fire of Toyama burned more than 8,300 buildings, including houses, temples, and shrines. There were other cases of fire in Johana and Uozu. Through the experiences of fire, people in Toyama have built this prefecture. The incidence of fire in Toyama Prefecture was the lowest among the 47 prefectures from 1991 to 2011 consecutively. This is because the fire department and local residents are making efforts to prevent fires.

### An endeavor to control flooding 水害克服への努力

The Jinzu River snaked through the center of Toyama City and caused flooding year after year. Therefore, construction was started to make the winding river straight. The construction method is called "Hasekoshi method." Then, Toyama Prefecture implemented a plan for the city. First, the prefecture constructed the 5km Fugan Canal from the north of Toyama Station to the former Higashi-Iwase Port. Then, the snaking area of the Jinzu River was filled with the soil produced after the canal construction. The center of Toyama, with many buildings including the government office and city hall at present, used to be part of the Jinzu River.

### Controlling snow disasters and utilizing snow

雪害の克服と雪を利用する知恵

Snow is inseparable from Toyama's winter. People in the past struggled against snow. On the other hand, they have learned lessons, and developed technologies and a culture with snow. In 1981, huge damage was caused by an extraordinarily heavy snowfall, called "Goroku gosetsu." Based on the experience, Toyama Prefecture has made efforts to reduce damage by snow. At the same time, Toyama has utilized and enjoyed snow as a gift from the sky. Various types of research and activities are conducted. It is snow that enriches life in Toyama.

ちょっとひと息

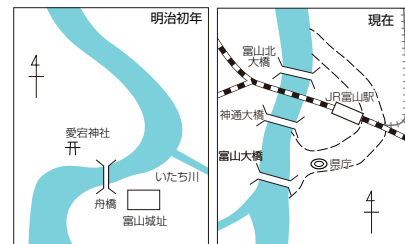
#### 雪害に強い縦型信号機

富山県では雪に対する備えとして、縦型の信号機を使っています。昭和56（1981）年の「五六豪雪」では、信号機が雪に覆われ、深刻な交通渋滞が発生したことから採用され、県内のほとんどの信号機が縦型のものになっています。



### Point

- 富山県の火災発生率が低いのはなぜですか。
- 神通川の廃川地でのちに埋め立てられたのは現在のどのあたりですか。
- 雪害を克服するため雪をどのように考えるようになりましたか。



Change in the shape of the Jinzu River  
神通川の変遷



Heavy snowfall in the Showa 50's  
in Toyama Prefecture  
昭和50年代の富山県内の豪雪



All Season Disaster Learning Center  
四季防災館

### Reading Guide

incidence of fire 火災発生率  
Hasekoshi method 馳越線工事  
Goroku gosetsu 五六豪雪



### dialogue 話してみよう!!

=マイク =健太

It is snowing in the plain field. This is the start of the real winter. Mike is excited about snow because he sees it for the first time.



It has been cold enough. Now, it is snowing!



Tomorrow morning we may be able to play in the snow.



You people in Toyama are used to snow, aren't you?



We have abundant water thanks to snow. By the way, when it gets cold, fires often occur. We have to be careful.



I know a phrase, "Hi-no-yojin." I heard it last night.



People in the whole community prevent fires. You know, the incidence of fire in Toyama Prefecture is the lowest in Japan.



Is it? You had many fires and floods in the past, didn't you?



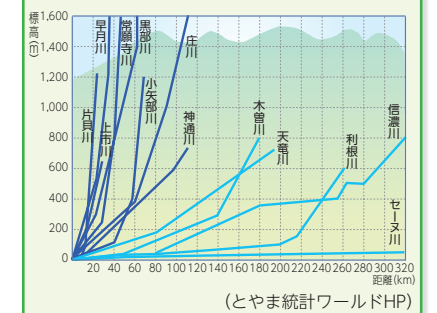
Yes. Toyama was rebuilt according to major city planning. Here, Kencho-mae Park, used to be part of the Jinzu River. Its snaking area was filled in with soil from the canal, where we just took a boat.



Wow. Is that true?

### 発展

富山県の河川は世界有数の急流河川です。



この図をみて、富山県で過去頻りに水害が起こっていた原因のひとつを考えてみましょう。

### column

#### The Sassa Levee established by Sassa Narimasa

佐々成政が築いた佐々堤

In 1580 Toyama people suffered from flooding of the Joganji River and the Jinzu River after continual rain in the autumn season. A lord of Toyama Castle, Sassa Narimasa, established a levee in Maseguchi along the Joganji River. The levee was called Sassa *tei* (levee). The levee was formed with large boulders. Its height was 10m and the length reached 150m. There were devices to reduce the damage of flooding. You can see a part of the levee at the bottom of the Josai-Gokuchi ditch.



### 3 Overcoming a pollution disease

#### A representative pollution disease in Japan 日本の代表的公害病

Itai-itai Disease occurred along the Jinzu River. It is one of the four major pollution-related diseases in Japan. Patients cried and shouted “Itai, itai (It hurts, it hurts)” because their bones became weak and brittle and repeatedly broke. This is why the disease had this name.

Many cases of the disease appeared from the Taisho Period to the mid-Showa 40's. Cadmium discharged from a mine located upriver polluted the Jinzu River and its basin. By drinking the water from the river and eating the rice grown with the water, cadmium reached people's bodies, mainly women, and caused the disease.

#### Struggling for restoration of agricultural fields 汚染農地復元への努力

At that time the cause of the disease was unknown. It was a general practitioner, Hagino Noboru, who addressed himself to the disease. Together with other scholars, in 1961 he announced that cadmium from Kamioka Kozan in Gifu Prefecture polluted the river and caused the disease. Finally, Itai-itai Disease was recognized as a pollution disease by the Ministry of Health and Welfare in 1968. Afterward, the plaintiffs entirely won their suit. Restoration work was started to replace the soil of the polluted rice fields and was finished completely in 2012. It took 40 years after the trial to get back the healthy earth.

#### Becoming an advanced prefecture in environmental protection 環境先端県への取り組み

During the years of rapid economic growth, there were various pollution diseases in Toyama Prefecture, including Itai-itai Disease. Therefore, the prefecture was called a department store of pollution. But now Toyama is one of the prefectures with the least pollution. With the experience of overcoming pollution step by step and the high awareness of the environment, various approaches are taken by governmental and private sectors to be an advanced prefecture in environmental protection. For example, Toyama is the first prefecture to stop distributing plastic shopping bags for free at grocery stores. Furthermore, new energy usage has been promoted, including small hydroelectric power generation which utilizes river water, and water for agriculture.

小説『神通川』が描いた、患者救済に奮闘する医師

#### Hagino Noboru



A novel, “Jinzu-gawa,” written by a famous Japanese writer, Nitta Jiro, is a story about a physician who dedicated himself to working for the patients with Itai-itai Disease. The patients suffered from not only severe pain but also prejudice caused by ignorance. He researched by his own assets to find the substance which contaminated the beautiful river. He also had to fight against slanders, threats, and hindrances. He consistently protected the patients. His dedication and humane attitude are described in the novel.

公害を乗り越えて

#### Point

- イタイイタイ病の原因となった物質は何ですか。
- イタイイタイ病の患者を救おうとした医師は誰ですか。
- 環境先端県としての富山県の取り組み例を挙げてみましょう。



Rice fields which were polluted by cadmium once and have been restored only recently 復元作業を終えたカドミウム汚染田



Use of one's own shopping bag マイバック

#### Reading Guide

four major pollution-related diseases 四大公害病

Ministry of Health and Welfare 厚生省 (現在の厚生労働省はMinistry of Health, Labour and Welfare)

years of rapid economic growth 高度経済成長期

small hydroelectric power generation 小水力発電



＝さくら＝エミリー

Sakura and Emily visit Toyama Prefectural Itai-itai Disease Museum. They talk about the disease.



In the past, the Jinzu River was polluted and a pollution disease occurred along the river. That is Itai-itai Disease.

What kind of disease is that?



Patients' bones became very brittle and they shouted “Itai, itai,” meaning “It hurts, it hurts.” This is why the disease was named “Itai-itai Disease”.

Wow, that's scary! What was the cause?



Cadmium discharged from Kamioka Kozan along the upper Jinzu River. The disease was called one of the four major pollution-related diseases in Japan. The restoration work for the polluted rice fields was finished finally in 2012.

It is only recently. It took a really long time.



50 years ago in Toyama there was severe air pollution, too. But now Toyama is one of the prefectures with the least pollution in Japan.

After the history of fighting against pollution, Toyama has its beauty now.



ちょっとひと息

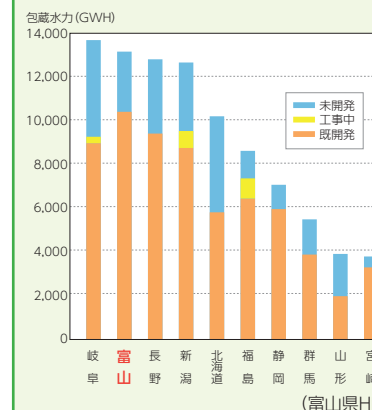
#### 富山県立イタイイタイ病資料館

イタイイタイ病を時間の流れに沿って、ジオラマ、絵本、映像などを組み合わせてわかりやすく解説しており、イタイイタイ病の恐ろしさや克服の歴史を学ぶことができます。また、語り部による講話なども行われ、イタイイタイ病について、より理解が深まります。英語や中国語など、5カ国語でのガイドも用意されています。



#### 発展

水力発電に利用できる水資源量「包蔵水力」が上位の都道府県です。



この図から、近年富山県で「小水力発電」の導入が進んでいる理由を考えてみましょう。また、「小水力発電」のメリットについても考えてみましょう。

# 1 Human resources and the modern industry developed by the pharmaceutical industry 売薬が生んだ人と近代産業

## Baiyaku-san from Toyama, distributing cures and culture

全国に健康と文化を運んだ売薬さん

According to a legend, in 1690 Maeda Masatoshi, a feudal lord of Toyama, gave a medicine, *Hangontan*, to a lord who complained of a stomachache in Edo Castle. The medicine was so effective that the stomachache went away in a moment. Then, the feudal lord, Maeda, received many orders for the medicine from other feudal lords who witnessed the effect. He encouraged a pharmaceutical industry and peddling medicines from region to region. Quality medicines produced in Toyama were sold nationwide by the system called “use first, pay later.” It means that curing your pain is the top priority and to receive payment should be next. It is said that the system is a pioneer of dealings on credit. The Toyama domain authority provided raw materials for medicines and assured their quality. Medicine sellers, *baiyaku-san* in Japanese, blended medicines depending on the conditions of each client. The clients trusted *baiyaku-san* from Toyama. This business style is becoming popular in Mongolia and Thailand at present.

## Enterprising spirits build the foundation for modern industry

進取の気性が近代の礎築く

*Baiyaku-san* in Toyama extended their knowledge and saved money through traveling on business nationwide. Since they generally had foresight and enterprising spirits, they started investing in modern industries from the Meiji Period onward. They were involved in the establishment of various companies such as pharmaceuticals, banks, railways, and printing companies. Furthermore, many schools, including a pharmaceutical one, were established by them. It is said that the pharmaceutical industry was the basis of modern industry and economic development in Toyama. There are many industries, such as electronic devices, biotechnology, and IT, which have roots in the pharmaceutical industry.

## Steps in electrical power development 電源開発の歩み

One of the main factors to support modern industry is electrical power development. Two *baiyaku-san*, Kanaoka Matazaemon the first and Mitsuda Kokichi, wanted to turn on electric lights in Toyama. They started the business of hydroelectric power generation together. After many difficulties they could establish the first hydroelectric power plant, Okubo Station in 1899. Electric lights were turned on for the first time in the Hokuriku region. Afterward, many power plants were established, which led to lowering electricity prices. As a consequence, factories were established one after another in Toyama. Toyama changed from an agricultural prefecture into the leading industrial prefecture along the Japan Sea.

**Point**

- 富山売薬の特徴的な商法を何といいますか。
- 売薬から発展した産業はどのようなものがありますか。
- 富山県が農業県から工業県へ躍進できたのはなぜですか。



Statue of Maeda Masatoshi  
前田正甫の像 (富山市郷土博物館提供)



Power plant Okubo Station  
大久保発電所 (『富山県写真帖』より)  
(富山県公文書館提供)

**Reading Guide**

feudal lord 大名  
Hangontan 反魂丹  
use first, pay later 先用後利  
enterprising spirits 進取の気性



Mike doesn't feel good in Kenta's house. Kenta gave him a medicine produced in Toyama.

I have a stomachache.

Do you? Take this.

Thank you. The picture on the container is interesting. There are various medicines in the box.

You know, we have a system of medicine box rental from a pharmaceutical company. We can use any medicine from the box, then pay later only for what we use.

It's convenient, isn't it?

The concept of the medicine business in Toyama is “use first, pay later.” It established credibility nationwide. The leading companies in Toyama were established by *baiyaku-san*. The first pharmaceutical school in Japan was also established by them.

The economic development of Toyama, as a prefecture of manufacturing, has a deep connection with the pharmaceutical industry.

That's right. Companies developed from the pharmaceutical industry in Toyama are very important because their business is based on credibility.

浅野総一郎 **Asano Soichiro**

Asano Soichiro worked on the development of cement manufacturing. Later, he was called “the King of Cement in Japan.” He thought that a modern port and a coastal industrial zone were indispensable for Japan's development. In 1913 he initiated the reclamation work in Tokyo Bay with support from Yasuda Zenjiro from Toyama Prefecture, the King of the Finance. It took about 14 years to finish the work. This is the base of the Keihin Industrial Area.

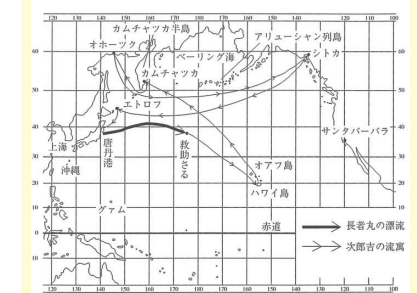


Medicines brought by *baiyaku-san*  
富山の家庭配置薬

## column Choja-maru and Jirokichi

長者丸と次郎吉

*Choja-maru*, a northern bound ship (*kitamae-bune*), which carried kelp, *konbu* in Japanese, to Satsuma, in return for permission to continue medicine business there, was wrecked off the coast of Sanriku in 1838. It drifted for 6 months. 7 crew members, including Jirokichi, were saved by an American whaling ship and taken to Hawaii. They lived in other countries such as Kamohatka and Alaska for almost 5 years. Afterward, they informed people in Japan of what they had seen and heard.



Drifting route by *Choja-maru* and places where Jirokichi stayed  
長者丸の漂流と次郎吉の寄留地 (高井進著『越中から富山へ』)

## 2 Toyama, a prefecture of manufacturing ものづくり県富山

### Toyama's power of manufacturing 富山のものづくりの力

Toyama is one of the leading prefectures of industrial accumulation along the Japan Sea. There are many companies, some of which occupy a high share of the market at home and abroad, and some of which have excellent technologies and products. These include the world's top makers of zippers and electronic parts for computers. Such top quality goods produced with high technology in Toyama are in demand overseas. Today, there are new challenges in the fields of medical care, biotechnology, airplanes, new generation cars, and robotics.

### Toyama Brand recommended by Toyama Prefecture

富山県推奨とやまブランド

Among various attractive goods produced in Toyama, excellent goods are designated as "The Toyama Brand recommended by Toyama Prefecture." *Masuzushi* is a symbolic food of Toyama. It is always very popular in railway box lunch fairs held nationwide. Toyama produces the largest number of tulip bulbs. Okado Somen, which looks like women's traditional hair style *marumage*, is made on cold winter days. It has a resilient texture. Various items which Toyama is proud of, such as yellowtail fish and Takaoka copperware, are listed as the Toyama Brand.

### New developments in traditional technology 伝統の技の新たな展開

In Toyama Prefecture there are 5 traditional craft industries designated by the national government. Today, these traditional craft industries are more and more inclined to develop new products to match modern lifestyle. One example is an electric guitar, named "Dragon Sword," designed with wood carving at Inami. In the Etchu paper industry, Japanese paper is used for lamp shades to produce soft light. Furthermore, water-repellent Japanese paper is developed in the industry. In the lacquerware industry in Takaoka, there are various products to match modern trends, such as cups for beer and ornaments for cell phone straps.

ちよつとひと息

### 信頼をつなぐ仕事の哲学

今や、日本海側で屈指のものづくり県となった富山県。昔から富山の業売りは、目先の利益にとらわれず、客への気遣いを忘れず、信用を第一に、持続可能な商売のモデルとなりました。現代まで受け継がれる、信頼とゴーイングコンサーン（企業の存続可能性）を尊ぶ富山の仕事の哲学は、これからの世界に必要なものです。



売葉さんの像

### Point

- 県内企業の製品が世界から求められる理由は何ですか。
- とやまブランドのひとつを挙げてみましょう。
- 伝統工芸の世界ではどのような取り組みが行われていますか。



Water jet machine  
ウォータージェットマシン



Dragon Sword, an electric guitar designed by Inami wood carving  
井波彫刻のエレキギター「龍剣」

### Reading Guide

- resilient texture コシの強い食感
- water-repellent 撥水性の
- lacquerware 漆器



=マイク =さくら

Sakura and Mike are shopping to look for a souvenir of Toyama.

My cousin will come to Toyama. What's good as a souvenir of Toyama?

How about goods designated as the Toyama Brand. For food, I recommend *masuzushi*, or Okado Somen. Processed yellowtail or white shrimp are also good.

Is there anything good among the traditional crafts?

How about a lacquerware or copperware item of Takaoka? A tin cup is beautiful.

It might be wonderful to have something made by traditional skills with a modern design.

You know there is an electric guitar designed with Inami wood carving.

That's cool!

By the way, Mike, your jacket is great. Do you know the zipper of that jacket is produced by a company in Toyama?

I bought this one in San Francisco. This kind of zipper is used around the world. I'm surprised!

富山県ものづくり研究開発センター



### TOYAMA MONOZUKURI Research and Development Center

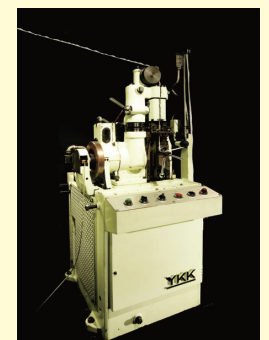
The center is a base facility with the most advanced equipment to promote the manufacturing industry in Toyama Prefecture. It is open for companies or universities. With industry-academia-government collaboration, the center aims to support the development of new goods and technology.

### column

### The zipper-chain machine, the first Mechanical Engineering Heritage in the prefecture

ファスナー機械で県内初の機械遺産

YKK's self-developed zipper-chain machine, YKK-CM6, was designated as "Mechanical Engineering Heritage" by the Japan Society of Mechanical Engineers. The aim of Mechanical Engineering Heritage is to conserve historical heritage related to machinery and technology in order to keep it for the next generations. YKK-CM6 is a symbolic machine to indicate YKK's spirit of manufacturing. Back in 1964, it had the best performance in the world. It was a driving force to capture global market share.



CM6 developed by YKK  
YKKが開発したCM6 (YKK提供)

### 3 Endeavors and achievements by scientists

科学者たちの努力と功績

#### Success in an open experiment of television テレビ公開実験に成功

Kawarada Masataro (1890-1983) was born in Uozu. He worked his way through Waseda University. After graduation, he studied and worked as an assistant professor in England. He got interested in the study of television there. He continued his study in Japan and succeeded in an open experiment of television for the first time in Japan in 1930. He obtained 60 patents. The drama based on his story was broadcast as NHK's Morning Drama serial in 1990. The title was "Rin rin to." The drama gained great popularity.

#### Recovery from the food crisis 食糧危機を解決

Inazuka Gonjiro (1897-1988), born in a farmer's family in Johana, worked on plant breeding in a national agricultural laboratory of the Ministry of Agriculture and Commerce. He created a new brand of wheat, *Norin 10* wheat. In the late 1960s, Dr. Norman E. Borlaug crossed *Norin 10* wheat with a Mexican type of wheat to create a high-yielding variety. As a consequence, this new variety of wheat greatly improved food security in India and Pakistan. Dr. Borlaug was awarded the Nobel Peace Prize and visited the house of Inazuka. He expressed his sincere appreciation for Inazuka's achievement.

#### Discovery of Taka-diestase タカジアスターゼを発見

Takamine Jokichi (1854-1922), from Takaoka City, was a chemist and businessman. He developed a technology to use Japanese yeast from fermented rice for producing whiskey, and went to the USA with it. However, he was blocked by local producers and failed in business. Yet, at the same time, he discovered a strong digestive enzyme during his study of brewing and fermentation. He named it Taka-diestase. He also discovered adrenalin. These discoveries were big contributions to the medical and pharmaceutical fields. He was also successful in business in these discoveries. He had no hesitation to use the money earned from his business for promoting friendship between Japan and the USA and private diplomacy.

ちょっとひと息

#### 無花粉スギ「立山 森の輝き」

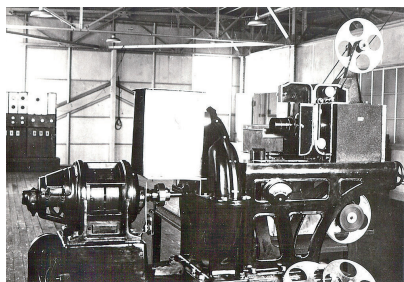
今や国民病とも呼ばれ、大きな社会問題になっている花粉症。富山県の林業試験場（現森林研究所）では、1992年に無花粉スギを全国で初めて発見しました。2009年には優良無花粉スギを種子から大量生産する技術を確認しました。優良無花粉スギ「立山 森の輝き」は2012年に初めて出荷・植樹され、花粉症をなくす切り札として期待がかかっています。



無花粉スギ（左）と通常のスギ

#### Point

- 川原田政太郎の功績は何ですか。
- 「小麦農林10号」が世界を変えたといわれるのはなぜですか。
- 高峰譲吉が発見した物質は何ですか。



Film shooting device for Waseda-style television  
早稲田式テレビジョンのフィルム撮影装置（電磁応用研究所提供）



Commercialized Taka-diestase and adrenalin  
商品化されたタカジアスターゼとアドレナリン（高峰譲吉博士顕彰会蔵、高岡市立博物館寄託）

#### Reading Guide

- NHK's Morning Drama serial **NHK朝の連続テレビ小説**
- Rin rin to* 凜凜と
- Ministry of Agriculture and Commerce **農商務省**
- Norin 10* wheat **小麦農林10号**
- fermented rice **米麴**

#### dialogue 話してみよう!!

=健太 =マイク

Kenta and Mike are talking about the future. What do they want to do?

What is your dream for the future?

I want to be an engineer. I like to make things.

I want to be an inventor. Many famous inventors and scientists are from Toyama. For example, Kawarada Masataro succeeded in an open experiment of television for the first time in Japan.

I learned that *Norin 10* wheat was the basis of the development of a high-yielding variety of wheat by Dr. Borlaug from America and *Norin 10* wheat was developed by Inazuka Gonjiro. Dr. Borlaug was awarded the Nobel Peace Prize.

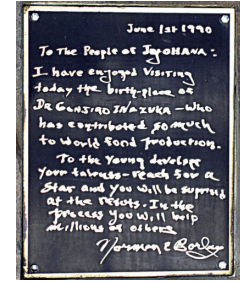
I know Dr. Borlaug was the man who solved the world food crisis. I am impressed with the words from Dr. Borlaug to Inazuka to applaud him.

Taka-diestase was discovered by Takamine Jokichi. He discovered adrenalin, too.

Yes, he did. I have to study hard to achieve something in the future, like them.

To the young  
Develop your talents ———  
reach for a star and you will be surprised at the results.  
In the process you will help millions of others.

(1990年に城端で講演したポーローグ博士の言葉)



Dr. Borlaug's words inscribed in a monument 石碑に刻まれたポーローグ博士の言葉

#### column Nobel Road

ノーベル街道

90km along the national route 41, from Toyama to Takayama, is called "Nobel Road" since 4 Japanese Nobel Prize winners are somehow related to the road. Tanaka Koichi, who won the Nobel Prize in Chemistry in 2002, Tonegawa Susumu in Physiology or Medicine, and Shirakawa Hideki in Chemistry grew up in the area along the road. They told us how important it is to have experience in nature in childhood.



## 4 Land, sea and air transportation networks

陸・海・空の交通ネットワーク

### An improving expressway network 充実する高速交通網

Toyama is located at almost the same distance from Tokyo, Osaka, and Nagoya. In the spring of 2015 the Hokuriku Shinkansen will start operation. By Shinkansen, it will take about 2 hours from Toyama to Tokyo. It is expected that the Shinkansen will greatly benefit tourism and industry, increase interaction between Toyama people and others, and draw more people to the prefecture. There is an expressway network directly with the Capital region, Chukyo region, and Kansai region. In addition, there are links from Fushiki Toyama Port to neighboring countries. It functions as a gateway in the region along the Japan Sea.

### A hub of international transportation 国際的交通の拠点

Toyama Airport was opened in 1963. This is the only airport established in a dry riverbed in Japan. It is very accessible. It takes only 15 minutes from the airport to the center of Toyama City by car. Its nickname is "Toyama Kito kito Airport." From the airport, domestic flights are available to Tokyo and Sapporo. International flights are also available to Seoul, Shanghai, Taipei, and Beijing/Dalian. The airline network is formed with neighboring countries along the Japan Sea and of East Asia.

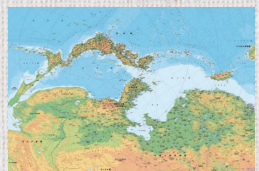
### The main gateway in the area along the Japan Sea 日本海側の総合的拠点港

Fushiki Toyama Port has functioned and prospered as a major port facing the Japan Sea for a long time. In 1986, the port was designated as one of the Special Major Ports since it was evaluated as an important port for international trade. In 2011, the port was also selected as a Comprehensive Hub Port. There is a route for commodity distribution, called "Siberian Land Bridge," which connects Japan with Europe by maritime transportation from Fushiki Toyama Port across the Japan Sea and the Trans-Siberian Railway. It is expected to greatly reduce the number of days for transporting commodities to Europe.

ちょっとひと息

#### ユニークな逆さ地図

環日本海・東アジア諸国図(通称:逆さ地図)は、富山県が進めている環日本海交流拠点作りをPRするため作られました。中国、ロシアなどの対岸諸国に対し日本の重心が富山県沖にあることを印象づけるため、大陸から日本を見た地図としています。日本海側のほぼ中央に位置する富山県は、環日本海・アジア新時代のゲートウェイ、日本海側の物流・交流拠点として、さらなる発展が期待されています。



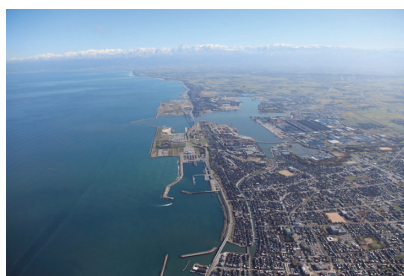
逆さ地図



- 富山県からほぼ等距離にある日本の三大都市はどこですか。
- 富山空港から国際線で行ける都市はどこですか。
- ヨーロッパへの輸送日数を短縮させるのはどんなルートですか。



Toyama Airport 富山空港



Fushiki Toyama Port  
伏木富山港 (国土交通省北陸地方整備局提供)

#### Reading Guide

- Special Major Port 特定重要港湾
- Comprehensive Hub Port 総合的拠点港
- Siberian Land Bridge シベリア・ランド・ブリッジ
- Trans-Siberian Railway シベリア鉄道



=マイク =さくら

Sakura and Mike talk about transportation networks in Toyama Prefecture and Japan.

I feel Tokyo and Toyama are very close by taking an airplane.

In 2015, the Hokuriku Shinkansen will start operation. By Shinkansen, it will take about 2 hours from Toyama to Tokyo.

How do you go to the Kansai region?

You can go to Osaka or Nagoya by car on the expressway or by train. The distances from Toyama to Tokyo, Osaka, and Nagoya are almost the same.

Toyama is equally accessible from these cities. How about access to overseas from Toyama?

From Toyama there are flights available directly to Korea, China, and Taiwan.

It's convenient. The tram running in Toyama City is very cool.

You know, the one from JR Toyama Station to the north is called Portram and the other one running in the center of the city is called Centram.

We can live here without a car.

生活しやすいまちづくり



Toyama Light Rail  
富山ライトレール

#### Building a city, a place to live easily

As one of the strategies of Toyama City to build a compact city where people can live without a private car, the first full-scaled LRT (Light Rail Transit) was introduced in Toyama City in 2006. The LRT has been evaluated so highly that it received various awards, including the Good Design Award.



Image of a train car of Hokuriku Shinkansen  
北陸新幹線新車両のイメージ図



Shinminato Ohashi 新湊大橋

#### 発展

伏木富山港がラストポートに  
(ロシア極東航路)

ラストポートとは、外国航路における日本側での最終寄港地のことです。シベリア・ランド・ブリッジは、伏木富山港とウラジオストク港(ロシア極東港)を結び、シベリア鉄道でモスクワまでつなぐ輸送路です。スエズ運河経由の海上ルートでは、モスクワまで35~40日程度かかりますが、このルートでは、ラストポート化もあり、伏木富山港から20日程度に短縮されるので、物流の活性化も期待されています。



ラストポート化のメリットを説明してみましょう。

## 1 The beauty of traditional buildings and their meaning in modern society

伝統建築の美と現代的な意義

### Temples of people's prayers 人々の祈りが込められた寺院群

In Takaoka City there are two Buddhist temples with cultural significance. One is Zuiryuji and the other is Shokoji. The former is a national treasure and the latter is an important cultural property.

Zuiryuji was built as the family temple for the 2<sup>nd</sup> lord of the Kaga domain, Maeda Toshinaga, by the 3<sup>rd</sup> lord, Toshitsune. It took 20 years for the temple to be completed in 1663. The characteristic feature of the temple is that the main gate, the temple gate, the Buddha hall, and the lecture hall are arranged in a straight line.

Shokoji was built about 420 years ago as a temple of the Honganji school of the Pure Land Buddhism. The location of the temple is believed to be the place of the central office of Etchu in ancient times. With the appearance of the main gate, which was built in a wide place, and the arrangement of the buildings, the temple looks like a castle.

### Important Preservation Districts for Groups of Historic Buildings Kanaya-machi, Takaoka, a town of metal casting and traditional crossing lattices 千本格子の鑄物の町 高岡・金屋町の重伝建地区

In Kanaya-machi of Takaoka City there is a row of traditional town-houses. Typically, these houses have an arrangement of crossing lattices, called *samanoko*, in their facades. In the early 17<sup>th</sup> century, the feudal lord of the Kaga domain invited 7 craftsmen of metal casting to Kanaya-machi to produce housewares. Then, Kanaya-machi prospered as a town of metal casting.

In Kanaya-machi, buildings related to metal casting have been conserved very well, such as main houses, *dozo* (traditional storehouses built from timber, stone and clay), workplaces, and tiny shrines. Craftsmen of metal casting keep their tradition there. In Kanaya-machi, you can see the history of the traditional industry and the lifestyle of craftsmen in the Edo Period.

### A traditional style of house, Azuma-dachi and kainyo

伝統家屋アズマダチとカイニョ

In the Tonami Plain there is a unique settlement, called *sankyo-son*, in which houses are built with some distance between them. The house is typically built with a traditional architectural style, *Azuma-dachi*. To avoid snowstorms in winter and sunlight in summer, trees such as cedars are planted surrounding a residence. This residential wood is called *kainyo*. Fallen leaves or branches from *kainyo* were used as fuel, too. People had an ecological lifestyle. Along with changes in lifestyle, the number of the residential woods is decreasing. Various efforts have been made to preserve this traditional landscape of Japan.



- 国宝瑞龍寺の建物の配置にはどんな特徴があるでしょう。
- 「鑄物師町」として栄えた高岡市金屋町の建物の特徴は何でしょう。
- 散居村の生活が「エコ生活」といわれるのはなぜですか。



Zuiryuji, a national treasure 国宝瑞龍寺



Kanaya-machi in Takaoka City 高岡市金屋町



Azuma-dachi アズマダチ

### Reading Guide

lecture hall 法堂  
Honganji school of the Pure Land Buddhism 浄土真宗本願寺派  
Important Preservation Districts for Groups of Historic Buildings 重要伝統的建造物群保存地区(重伝建地区)  
tiny shrine 祠(ほこら)  
residential wood 屋敷林



dialogue  
話してみよう!!

=マイク =さくら

Sakura and Mike visit Zuiryuji, a national treasure.



We visited Shokoji the other day. It's a wonderful temple, and Zuiryuji is also terrific. It's so large that we have walked straight and passed through two gates.



Yes, we have. Zuiryuji is a temple for Zen practice and a national treasure.

Well, let's go to Kanaya-machi next. It is famous for metal casting. The stone pavements and a row of traditional houses there have a lot of charm of their own.



Buildings in Toyama are very interesting.



Yes, they are. In Tonami City there are traditional houses surrounded by tall trees in rice fields.



It sounds like there are houses in the woods.



That's right. There are houses scattering in the district and that is why the district is called *sankyo-son*, a dispersed village. When the rice fields are filled with water, each house surrounded with trees looks like an island on a lake.



Wow, what a beautiful landscape it must be!



Next time, let's go on a trip to visit various buildings all over Toyama, shall we?



Sounds great!

### column

#### Yamachosuji, a beautiful *dozo* street in the castle town

城下町に美しい土蔵の町並み 山町筋

In 1609 Maeda Toshinaga, the 2<sup>nd</sup> lord of the Kaga domain, established a castle and a town for his life after retiring. Along with them, a town of merchants gradually formed. That is Yamacho. The name of Yamacho originated in Takaoka *Mikuruma-yama*. Yamachosuji is a beautiful street with *dozo* in the atmosphere of a castle town. The town is designated as "Important Preservation Districts for Groups of Historic Buildings." The historical landscape has been conserved in the town.



## 2 Rich local culture 豊かな郷土文化

### Traditional dances in Festivals 住民が踊り継ぐ祭り

*Etchu-owara-bushi*, *Mugiya-bushi*, and *Kokiriko-bushi* are three major folk songs of Toyama. *Owara-Kaze-no-Bon*, held in Yatsuo, Toyama City, is accompanied by *kokyu*, a traditional string instrument, with a melancholic tone. Dancers wear braided hats. Men dance dynamically and women dance elegantly for three days and nights. *Mugiya-bushi* is performed in the Gokayama Mugiya Festival in Nanto City, and in the Johana Mugiya Festival. Dancers do a dynamic dance with sedge hats in hand. *Kokiriko-bushi* is performed in a festival in the Gokayama region in Nanto City. Dancers dance while playing the *sasara*, a traditional instrument.

In the local performing arts club of Nanto-Taira High School, students learn and pass down the folk songs and dances of the Gokayama region. They achieve a very good result at the All-Japan High School Cultural Festival every year.

### Festivals, great and beautiful 華やかで豪快な祭り

Toyama is one of the prefectures where there are many floats for festivals. In the past, floats indicated economic potential or the culture of each town. Each float is decorated gorgeously with the essence of craftsmanship of lacquerware, carving, and metalwork. For example, Takaoka *Mikuruma-yama* has umbrella-like decorations formed by bamboo sticks with many flowers. When seven beautiful floats get together, it is very spectacular.

Another type of float is seen in the festivals in Johana, Nanto City, or Yatsuo, Toyama City. This type of float has a small palatial home, called *yakata*, and dolls are put there. The floats with a lot of lanterns parade in the town at night. It is interesting to see how floats change direction in a narrow street. A *Tatemon* float in Uozu City is 16m high and has many lanterns hung from a pillar, which makes the float triangle-shaped. The floats light up the night sky by hundreds of lanterns.

### A festival rooted in a local town 土地に根付いた祭り

In local towns in Toyama Prefecture, there are traditional annual events in which people pray for health, safety, good harvest, and prosperity.

*Hatsu-uma* in Toga, Nanto City, is a festival only by children. They visit houses pretending to do works of agriculture or sericulture. *Buri-wake-shinji* is held in the Kamo Shrine in Kamo-Chubu, Imizu City. After *buri*, yellowtail, are offered to the god in the shrine, the *buri* are divided. People eat pieces of the *buri* as the gift from the god, in turn.

*Kishu-sai* is a festival held in many port towns in Himi City. People display *tairyō-bata*, a fisherman's flag, offer a sea bream to the local god, and share a cup of sake.

**Point**

- 富山県の「三大民謡」は何ですか。継承している地域はどこですか。
- 曳山が主役となる祭りを挙げてみましょう。
- 富山県内に伝わる年中行事はどのような願いを込めて行われるのでしょうか。



Owara-Kaze-no-Bon in Yatsuo Town  
八尾町のおわら風の盆



Takaoka Mikuruma-yama Festival  
高岡御車山祭

**Reading Guide**

- float 山車
- sericulture 養蚕
- yellowtail ブリ
- sea bream 鯛
- share a cup of sake 酒をまわしのむ

**dialogue**  
話してみよう!!

エミリー = Emily  
健太 = Kenta

Emily's mother wants to visit Toyama. Kenta explains to Emily about festivals in Toyama.

My mother wants to come to Toyama this September. Where should I take her in Toyama?

What does she like?

She likes music and dance in any country.

So, why don't you take her to some festivals. Toyama has various traditional festivals. In September, you should see *Owara-Kaze-no-Bon*. A great number of tourists from all over the country come and see the festival. You can join in the dancing, too.

They dance for 3 days and nights, don't they?

Yes. There are also many float festivals.

What is a float?

It is a big wheeled platform with gorgeous ornamentation. Many people drag it to parade in the town. When many floats get together, it is magnificent. Now you can see the floats at an exhibition facility.

It's exciting just imagining! I have to send an e-mail to my mother soon.

ちょっとひと息

富山弁「広辞苑」に

日本語辞書として信頼されている『広辞苑』第6版に富山弁が掲載されています。「きときと」は新鮮で元気なさまです。このほか「うまそい」(丈夫そうである)、「へしない」(遅い、待ち遠しい、まだるっこい)、「はらうい」(腹がいっぱいで苦しい)が載っています。

岩波書店の『広辞苑』第6版

**column**

**Chindon**

チンドン

The Chindon Contest was started in 1955 with the wish for restoration of Toyama City, 99.5% of which was burned down due to the bombing in the war. A *chindon*-man is a street performer who advertises a shop or a fair by playing musical instruments such as a bell or a drum. In the contest a couple dozen *chindon*-men from all over the country show their performances on the stage. The contest is held every year when cherry blossoms are in full bloom. Therefore, it is a beautiful and bright seasonal feature which heralds the arrival of spring.

Parading *chindon*-men  
チンドンマンによるパレード



### 3 The ancient history of Toyama

「越の国」から越中、加賀藩・富山藩、そして富山県へ

#### Toyama domain, created from the Kaga domain

加賀藩から分かれた富山藩

Toyama Prefecture, Ishikawa Prefecture, Fukui Prefecture and the south part of Niigata Prefecture used to be one province and called Koshi. By the end of the 7<sup>th</sup> century, the province was sectioned into 3 parts, Etchu, Echizen, and Echigo. *Kokufu*, a place where *kuninokami*, a governor, worked, was located in present Fushiki, Takaoka City. The area was controlled by many feudal lords in the Kamakura Period, Muromachi Period and Warring States Period. After Toyotomi Hideyoshi unified the political factions of Japan, the Maeda clan controlled the Kaga domain, including Kaga, Etchu, and Noto, for a long time.

The Kaga domain was the richest in Japan. The clan was very afraid to be considered as a rival by the Edo Shogunate. Therefore, the clan divided the territory and created the Toyama domain. The Toyama domain had difficulties of flooding and deficits from its beginning. A new industry, a pharmaceutical industry, was a solution to these difficulties.

#### Etchu, struggling for controlling flooding 治水に力を注いだ越中

In July 1871, when the domain system was abolished, Toyama was a very small prefecture surrounded by Kanazawa Prefecture. In November, Toyama's area expanded and was named Niikawa Prefecture. However, in 1876, Niikawa Prefecture disappeared because it was incorporated into Ishikawa Prefecture.

Since there are many steep rivers in the area of Etchu, there occurred flooding again and again. It was necessary to allocate much money for flood control. However, Ishikawa Prefecture put the highest priority on road construction. In the prefectural assembly, opinions were largely divided. This conflict became a trigger for the movement of Toyama to be independent of Ishikawa Prefecture.

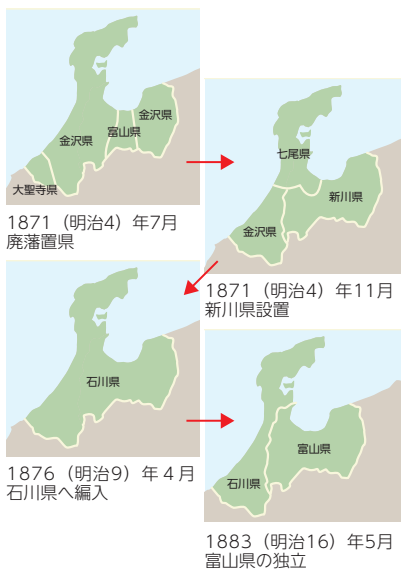
#### Independence of Toyama Prefecture 富山県が独立

There was a leading person in the movement to be independent of Ishikawa Prefecture. That was Yonezawa Monzaburo. In 1882, he made a political party and interacted with some activists of the Freedom and People's Rights Movement in Tokyo. Moreover, he submitted an appeal for independence to the National Government. He repeated his appeal and finally Toyama Prefecture became independent of Ishikawa Prefecture in 1883.

After independence, Toyama Prefecture focused not only on flood control but also on education. It aimed to increase the enrollment ratio. Furthermore, in 1885, Toyama Prefecture accepted children's appeal and established Toyama Prefecture Junior High School (Toyama High School, presently) by postponing building a prefectural government office.

**Point**

- 江戸時代までの富山はどのような歴史をたどってきたでしょうか。
- 富山県が石川県から独立しようとしたのはなぜですか。
- 明治時代以降、富山県政が重点を置いた施策は何ですか。



Transition of borders before Toyama's independence 富山県独立までの県境の変遷



Yonezawa Monzaburo  
米澤紋三郎

**Reading Guide**

Koshi 越(の国)  
Warring States Period 戦国時代  
unified the political factions of Japan 天下統一  
Freedom and People's Rights Movement 自由民権運動  
Toyama Prefecture Junior High School 富山県中学校



=健太 =マイク

Mike and Kenta talk about Toyama's history and culture.

More than 1,000 years ago, Toyama used to be in the center of the region called Koshi no kuni or Etsu. So Toyama's old name was Etchu, which means the center of Etsu.

I know. Was Etchu controlled under the Kaga domain in the Edo Period?

Yes, it was. The Toyama domain was only a limited part around the center in the present Toyama Prefecture. The people in the domain often had a problem of flooding.

In the early Meiji Period, the entire Toyama area was included in Ishikawa Prefecture. Is that right?

Yes. Ishikawa prefectural assembly didn't understand the difficulty of flooding in Toyama. So, Toyama tried to separate from Ishikawa, and finally, it was accepted.

When was Toyama Prefecture established?

It was May 9, 1883.

That is the independence day of Toyama!

#### 木曾義仲と巴御前 Kiso Yoshinaka and Tomoe Gozen



Statue of Kiso Yoshinaka  
木曾義仲の像

Kiso Yoshinaka was a son of a samurai of *Genji* and grew up in Nagano area. Tomoe Gozen was a daughter of Yoshinaka's foster parents. She learned martial arts from her childhood. When Yoshinaka raised his troops, she became a woman samurai and worked actively. After the victory in Kurikara, he went to Kyoto to beat off the *Heishi*. Later, he was called *Asahi Shogun*. He lost against Minamoto no Yoshitsune and died in the battle. According to a legend, Tomoe Gozen became a nun and lived in Etchu.

#### column

#### Kagyū-no-kei

火牛の計

There was a man who assaulted an enemy with a herd of oxen with torches on their horns. This inventive man was Kiso Yoshinaka, a samurai of *Genji*. In 1183, when *Genji* and *Heishi* fought fiercely against each other, they had a big battle at Kurikara on the prefectural border between Ishikawa and Toyama. Yoshinaka's troops attacked the *Heishi* in their sleep. The several hundred oxen wiped out the enemy. Then, he achieved a big victory. This strategy is called *Kagyū-no-kei*, a flaming bull strategy.



Genpei Kagyu Festival 源平火牛まつり