

Chapter 3

Distance: a geographic “big idea” and some consequences in Australia

Distance is important,
because overcoming distance is expensive.

The cost depends on what you are moving, how you are moving it,
and the conditions along the route.

These facts have consequences that can be seen
when you look at many maps of Australia -
maps that show rainfall, plant cover, animal ranges,
colonial history, population density, land use,
mining, industry, exports, imports, and health care.



Great Central Highway, in the outback of Australia

The Battle of New Orleans, sometimes called “America’s Thermopylae.”

History note: The chapter on Europe describes the “real” Thermopylae.
It was a narrow area between a steep cliff and the deep sea.
Here, 300 Spartan warriors fought a huge Persian army.
It was one of the most famous battles in ancient history.

New Orleans does not look like Thermopylae. There are no steep cliffs around New Orleans. The land is almost flat. Most of it is only a few feet above sea level. The only dry land is in a narrow strip next to the Mississippi River. Away from the river, the land is low and swampy, full of alligators and mosquitoes.

A swamp was a terrible place for an army in 1814. The soldiers couldn’t ride horses. They couldn’t move cannons. They could hardly walk.

If you want to see the reason for this pattern of elevation,
look up “natural levee” on the internet.

Here, let us just note one simple fact. The arrangement of wet and dry land near New Orleans was good for the American side in the war. The soldiers could build a wall across the narrow strip of dry land between the river and the swamps. Protected by their wall, a small army of Americans was able to defeat a much larger British army.

Andrew Jackson was the American general at New Orleans. He called it “one of the most brilliant victories in the annals of war.”

In reality, however, the Battle of New Orleans was a tragic day in American history.

It was tragic because of when it happened – January 8, 1815. That was two weeks after a peace treaty had been signed in Europe.

Right after the treaty was signed, a fast ship took a copy across the ocean to America. When the news got to the United States, it was sent on horseback to all the armies.

Here’s the news:

“The war has been over since December 24. Sorry it took so long for the news to travel this far. Every battle since December 24 was a mistake. Thousands of soldiers on both sides have been killed or wounded for no reason.”

The fate of those soldiers is just one consequence of the big idea of this chapter.

Big idea: *Distance is important, because it costs time and money to overcome distance.*

Note: Some people say that the internet and phones have “eliminated distance.”
To these people, we have a simple message.

There are millions of tons of wheat in North Dakota. There are tons of tomatoes in California, and a lot of sausage in Texas. If you want pizza in Chicago, Detroit, or New York, you have to move those things from where they are to where you are.

Unfortunately, no one has figured out how to move a pizza over the internet.

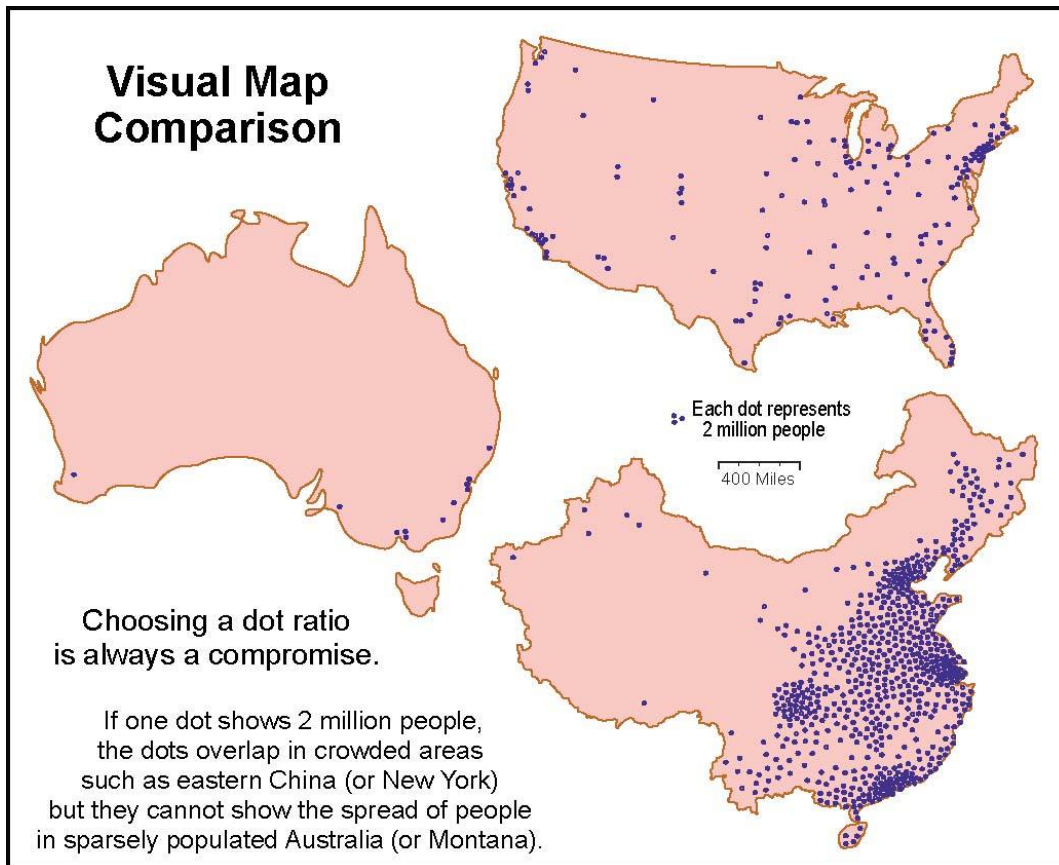
So here’s the big idea again:

Distance matters, because it costs time and money to overcome distance.

A geographical “laboratory” to investigate some consequences of distance.

Australia is a good “outdoor laboratory” for studying the effects of distance. It is the smallest continent, but it is still a big piece of land. Driving across Australia is like driving from New York to Los Angeles. There is a difference, though. In Australia, you will not see many people. The United States has nearly 15 times as many people.

Australia is far from the United States. It is much closer to China and India. China is a bit larger than Australia, but it has 60 times as many people. India is half as big, but it has as many people as China. In short, China and India are crowded. Australia is nearly empty.



Low population density in Australia can cause problems.

Definition: population density is the number of people in a unit of area (e.g., a square mile).

For example, the United States has many more people to help pay for roads or railroads. Not surprisingly, the United States has more good roads than Australia. In fact, the United States has almost nine times as many miles of paved highway.

Remember the picture at the start of this chapter? It showed the only road that goes east-west across the middle of Australia. The nearest road north or south is nearly 200 miles away. Without roads, it is hard for people to travel. In short, distance within Australia is a problem.

Distance from Australia to other countries is also important.

In this chapter, you will investigate some consequences of both kinds of distance. Some of these effects are positive. Other effects are negative. One goal will be to understand several ways that distance has an effect on people – not just in Australia but anywhere in the world.

Consequence #1: It takes time to get to a place that is far away.

Human beings first lived in Africa. About a hundred thousand years ago, the climate changed. People started to move to other parts of the world.

It did not take long to go from east Africa to nearby places like west Africa or Southwest Asia (the 90 on the map below). From there, they could go on to Southern Europe or Central Asia.

It took longer to get to Northern Europe, East Asia, and Australia. It took the longest time to get to South America. People first had to cross from Asia to Alaska. Then they had to travel south through the entire length of both North and South America.

That's a long distance, and it took a long time!

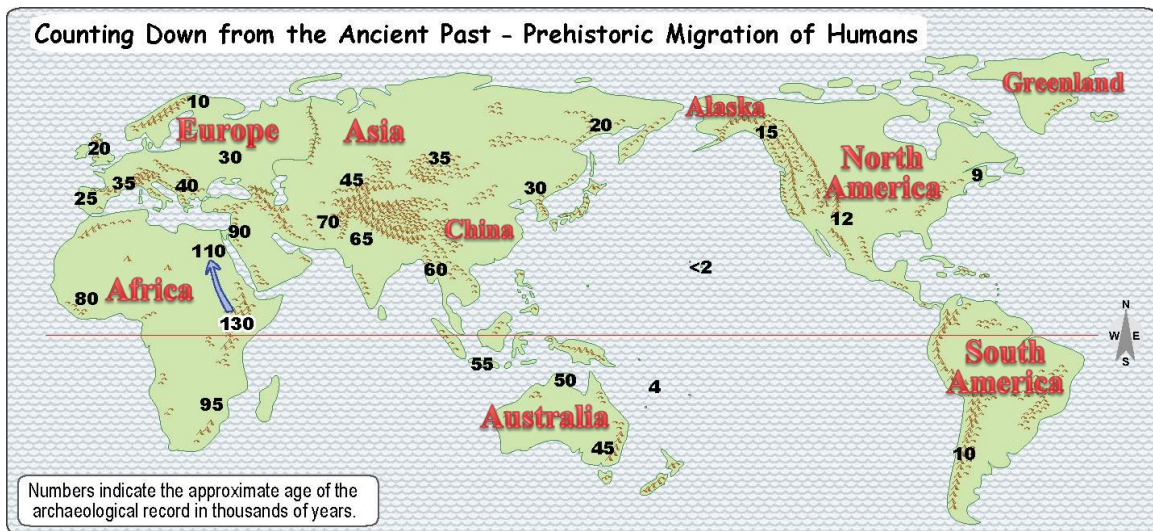
Travel was easy in some places and hard in others. For example, moving through grasslands or open forests is fairly easy. Travel is slower through dense forests. High mountains are hard to climb and can be very cold. Large deserts and oceans are an even bigger problem.

It is possible to walk from Africa all the way across Asia. Unfortunately, Asia is separated from Australia and the Americas by huge bodies of water. Here, the story of human migration was aided by another fact – climate change.

Today, the earth is fairly warm. There are only two large sheets of ice. One of these is on Greenland. The other is on Antarctica (a map like this cannot show Antarctica accurately).

Hundreds of high mountains have small glaciers on them. These do not add up to even a small fraction of the Greenland or Antarctic icecaps.

Thousands of years ago, the climate was much colder. Ice sheets covered large parts of North America and Eurasia. When a lot of water was turned into ice, there was less in the ocean. As a result, the water level was hundreds of feet lower than today. This made it possible to walk on dry land from northeast Asia to Alaska. People could also walk to many of the islands between China and Australia. In other cases, people could see the land on the other side of a narrow area of water. That made it easier to make a boat and float across to the other side. People did that and arrived in Australia about 50,000 years ago.



You can finish this map by drawing arrows from older dates to more recent ones. The result is a visual picture of human migration for the last 130,000 years. The story of human migration is just part of a much larger story about the spread of plants and animals around the world. That's our next topic . . .

Consequence #2: Distant places are likely to have unusual plants and animals.

During the time when sea level was low, many of today's islands were connected to continents.

New Guinea and Tasmania were part of "super-Australia." Three large islands of Indonesia – Sumatra, Java, and Borneo – were connected to Asia.

Using these "land bridges," animals and plants could move from continent to island and back.

When the ice sheets melted, sea level went up. Different islands ended up with different plants and animals:



Borneo has tigers and gorillas. These animals also live in Vietnam, India, and other countries of South and Southeast Asia.

New Guinea has kangaroos and opossums. These animals also live in Australia.

Sulawesi is really weird. It looks like a hand with a bunch of bent fingers (find it on the map). Sulawesi has many strange animals. Nearly two-thirds of its mammals are found nowhere else in the world. This is because Sulawesi was not connected to either Asia or Australia. Many birds in Sulawesi, by contrast, are also seen in both Asia and Australia. Why? Because birds can fly. Crossing a little bit of ocean is no big deal.

Australia is dry and far from other land. As a result, many of its plants are different from plants in other continents. Nearly all of the trees in Australia, for example, are in just one family – the Eucalyptus family.

Science fact: Eucalyptus trees have a distinctive smell. They smell like medicine. In fact, some common things like mouthwash are made from Eucalyptus plants.

People have planted Eucalyptus trees in other places where the weather is like Australia. For this reason, you can now see eucalyptus trees in places like California and Hawai'i.

Meanwhile, some people in Australia have planted trees and other plants from Europe and America. Animals from other continents have also been carried to Australia.

Some of these "exotic" plants and animals have no natural enemies in Australia. Look at rabbits, for example. People brought a few into the nearly empty shrublands of Australia. The rabbits then did what rabbits do. They ran around, ate, and made many baby rabbits. Soon, they were eating nearly every plant in sight. People realized that rabbits and other *invasive species* can become pests. Then people tried many ways to control the rabbits.

Definition: **invasive species** are plants or animals that come into an area from far away. Since they have no local enemies, the populations of invasive species can grow rapidly.

To find more details, do an internet search with the keywords "Rabbit Fence."

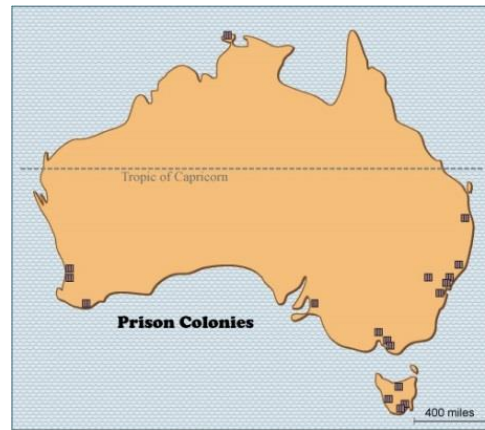
Here, we just want to emphasize the fact that distance is important in biological history. It helps us understand why Australia has so many plants and animals that are different from other parts of the world.

Consequence #3: Distance can act like a fence around things we don't like.

In Portsmouth, England, there is a history sign. It tells about some ships that left England in May of 1787. Seven months later, the ships finally arrived in Australia. The ships had an unusual cargo – prisoners! The prisons in England were overcrowded. Building new ones would cost money. The government decided it was cheaper to send convicts to Australia.

Map of prison *colonies*.
Notice that they are all located close to the east or south coast of the continent.

Definition: a **colony** is a piece of land that a country claims to own, even though it is far away, often on another continent.



The prisoners got to Australia in late January. This was not a big problem, because January is mid-summer there. There was plenty of time to build the prisons before winter came.

The fact that the trip took seven months, however, was a problem. The crew and prisoners had eaten most of the food. Some clothing and equipment was already worn out or broken. Tools were in short supply, because tools are heavy, and ships could not carry a lot of heavy things. Spare parts were twelve thousand miles away. Even simple things like needles and thread could be a problem. They might as well be on the moon if they were left behind in England.

The prison colonies of Australia are a good illustration of a basic geographic rule:

Geographic rule: *Put things that you like nearby. Put things that you don't like far away.*

Here's a modern example of this principle: Many people like to live close to a nice park. As a result, land close to a park is more valuable. Land next to a sewage treatment plant, on the other hand, is not worth as much. Most people do not want to live next to a sewage plant. When few people want to buy a piece of land, the price goes down.

The rule is true only if people agree on what they like to be close to. When people disagree, it is not easy to choose the “best” location for things. This is one reason why it is sometimes hard to decide where to put things like oil refineries, wind generators, or noisy airports.

The story about the prison colonies has one more message for geographers. This message has both good news and bad news:

The good news is that many modern Australians are descendants of people who had to face difficult obstacles. They had to be *self-reliant*, because help was far away. Eventually, through hard work and ingenuity, they solved the problems.

Definition: **Self-reliant** means that you do things for yourself; you do not rely on others.

The bad news is that many Australians have ancestors who were sentenced to prison!

The story of prisons is just a small part of a much bigger story about distance. If you think about what it was like to be a European in faraway Australia, you might be able to guess the next logical consequence of distance.

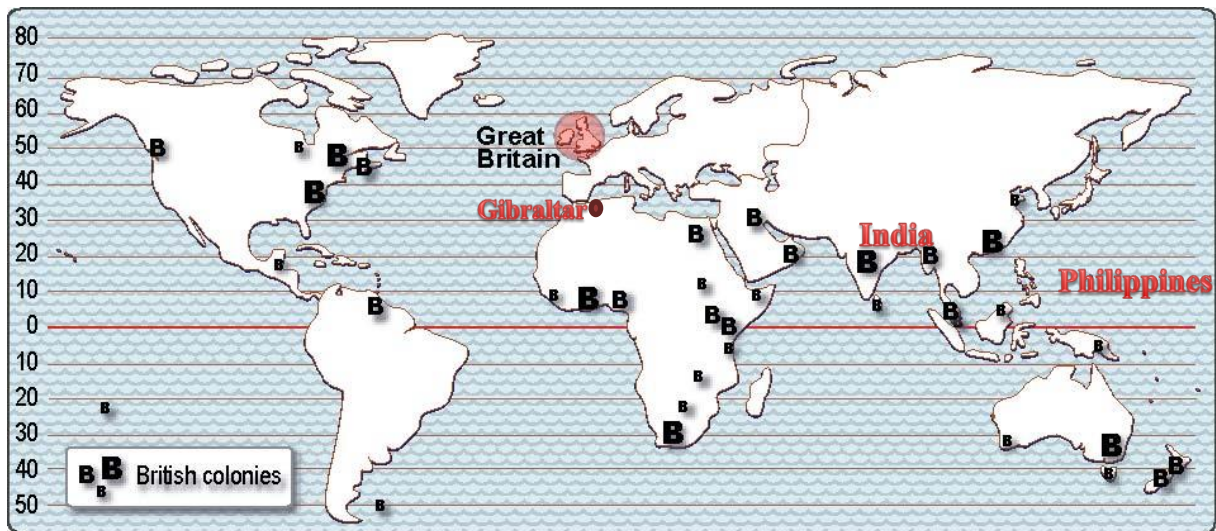
Consequence #4: Distant places are vulnerable, because it is hard to get help.

A distant place is hard to defend. People have known this for thousands of years.

The Roman Empire, for example, had many forts along the border. These forts were far from Rome. An enemy could focus on attacking one fort, but the Roman army had to defend all of them. This was a huge problem for the emperors! Hiring soldiers to defend all the forts cost a lot of money. In this way, distance may have helped cause the fall of the Roman Empire.

So why did people make empires? For one thing, colonies can have resources that cannot be found or grown in a small homeland. Look at the British Empire. England is a small island country. It is not even as big as Michigan or Oregon.

In the early 1800s, however, British people bragged that “the sun never sets on the British Empire.” Here is what they meant. As the world turns, some part of the Empire was always on the sunlit side. This map shows where the British claimed colonies on other continents:



A large empire has a big advantage:

People can find almost any resource they need, somewhere in the empire.

It also has a great disadvantage (which you already know):

It takes a lot of time and money to govern and defend a large empire.

History fact: In History books, you read about Revolutionary War heroes like George Washington. You might not know that the American Revolution was especially hard for the British, because it wasn't their only war. They were also fighting in Central America, India, and Gibraltar at the same time. Spain tried to help the American side, but Spain had trouble in its own colonies. Spanish armies were fighting against rebels in South America and in the Philippine Islands, on the other side of the world.

In short, distance was a problem for nearly every large empire in world history. The high cost of defending distant outposts may be part of the reason why the empires collapsed.

Thought question: Some people say that this is happening to the United States today. They say it is too expensive to send soldiers to distant places like Iraq, Afghanistan, or Syria. The cost may lead to huge debt and economic crisis. What do you think?

Consequence #5: Distant places are less valuable and therefore less likely to be attacked.

A distant place is hard to defend. BUT distance also makes a place less likely to be attacked.

In the 1700s and 1800s, other countries often attacked British colonies. For example, France, Spain, Germany, and Poland all sent ships, troops, and money to attack British forts and help the American colonists fight the Revolutionary War against Great Britain.

Attacking Australia, however, was much harder. Other European rulers probably thought about the cost of sending a navy and army halfway around the world. Then they usually decided that it was not worth it. It was just too expensive to attack a place so far away.

Sheltered by its great distance from Europe, Australia had a long and fairly peaceful time as a British colony. The *aborigines* were not strong enough to defeat the British rulers alone.

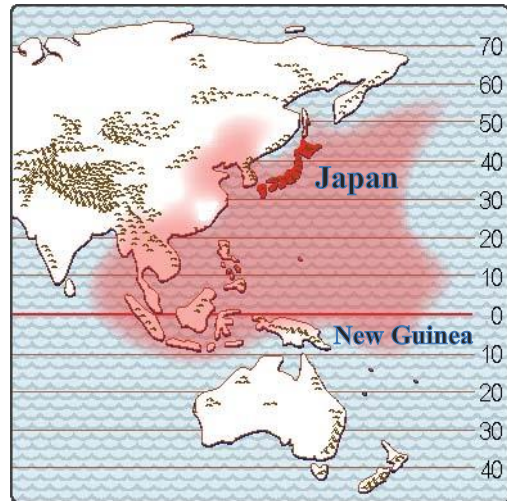
Definition: **Aborigines** are the people who already lived in Australia when European explorers arrived.

In short, distance from Europe kept Australia nearly safe from attack by England's enemies.

In the late 1800s, things changed. A threat came from a much closer country – Japan.

Japan is an island country like Britain. In the late 1890s, it began to build an empire. It invaded other countries in nearby Asia. Then, it attacked islands in the Pacific Ocean. Much later, it even attacked Alaska and Hawai'i (Pearl Harbor).

Australians were afraid. They asked for help from England and other British colonies around the world. The common bonds of language and culture made these countries allies in the wars against Germany and Japan.



Definition: An **ally** is a country that fights on the side of another country in a war.

History fact: Back in World War I, Australians volunteered to help Britain. Their first task in that war was good example of the rule about distance. The British asked the Australians to capture a German base in New Guinea. It was easier for Australia to attack the base than for Britain to send warships halfway around the world. Eventually, Australian soldiers joined British troops to fight many battles. By the end of World War I, Australia had lost more than 60,000 soldiers. This was a major problem - this remote country had fewer than five million people at the time.

In World War II, Australia quickly asked Britain and the United States for help. Japan had entered the war on the side of Germany. It had a large army and navy, close to Australia.

You can get the details about World War II in Australia from a history book or the internet. Here, let us point out that Australia and New Zealand learned from the World Wars. They started a defensive alliance. In time, these alliances also included economic treaties. These treaties were designed to help these countries deal with another effect of distance – the high cost of transporting imports and exports.

Consequence #6: If your customers are far away, you have to grow or make things that are valuable, non-perishable, and not too heavy.

A major effect of distance is the cost of transportation. This cost makes it more expensive to import things from other countries. It also reduces the profit from exports to other countries.

Definition: **friction of distance** is the energy or money needed to overcome distance.

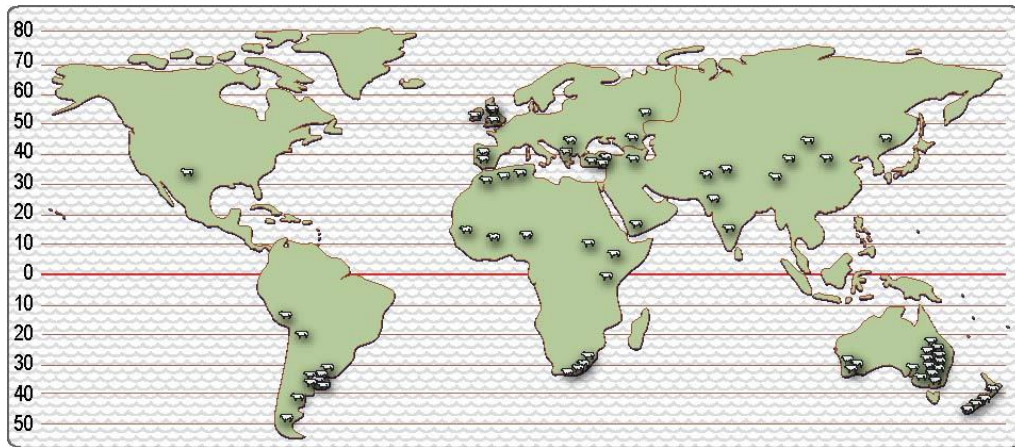
One way to deal with the *friction of distance* is to grow or make things that are:

- **non-perishable.** You shouldn't grow things that would spoil during a long trip.
- **light.** You shouldn't make things that cost too much to ship.
- **valuable.** You should produce things that make enough to pay the cost of transportation.

Some of the first successful products from Australia came from animals. People knew that meat would spoil on a long trip. Remember, this was long before refrigerators. It also was before people knew how to make artificial cloth, such as nylon or polyester. Great Britain was the top cloth-maker in the world. Using steam engines, British mills could process much more wool than British farmers could produce.

Meanwhile, people in Australia were trying to find a way to make a living. They knew that sheep could eat the grass and low shrubs that grow in Australia. They also knew that wool was both durable and valuable. Australian farmers began to specialize in raising sheep.

Eventually, the cloth trade included other places. India and United States South had the long, hot summers that cotton needs to grow. Farmers there could grow cotton for British mills. Cotton growing and harvesting required a lot of labor. That demand for labor helped support a plantation economy based on slavery. This eventually led to the Civil War.



The map shows that wool production is still important in both Australia and New Zealand.

Meanwhile, mineral resources have become important. Australia is a major producer of gold, iron ore, aluminum, and coal. It is also a key source for some elements called rare earths.

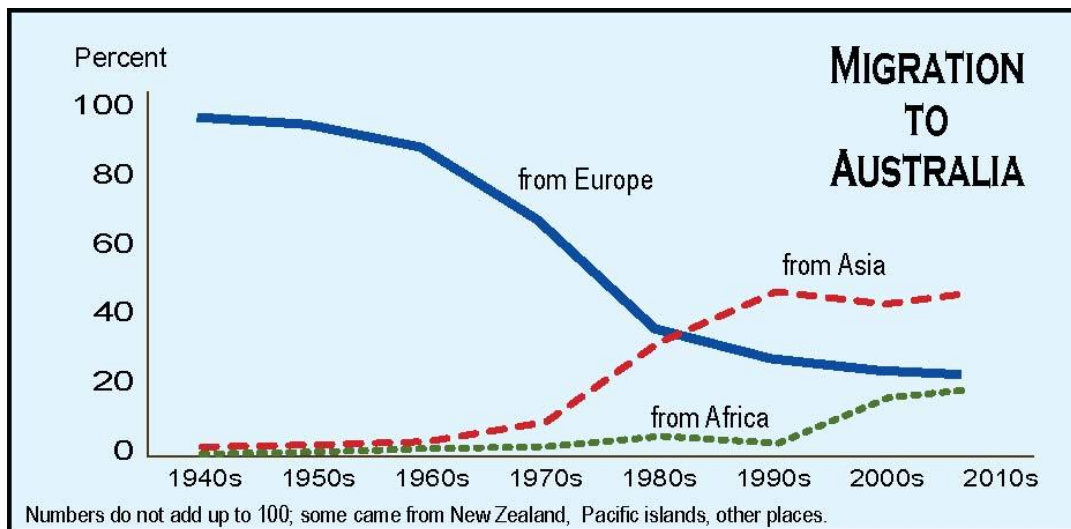
Science fact: Rare earths are metals with weird names like Neodymium, Samarium, and Dysprosium. They are essential in the modern economy. Neodymium, for example, is needed to make small but powerful magnets for smartphones, wind turbines, hybrid cars, and guided missiles. Other rare earths are used to make TVs, LED bulbs, and batteries.

Australia is lucky to have good deposits of rare earth elements. They are light, non-perishable, and VERY valuable. (That's all three items on the list at the top of this page!)

Consequence #7: Australia's position in the world economy has changed.

Until the mid-20th century, Australia was basically a distant part of the British Empire. Most of the people were descendants of British immigrants. Nearly everyone spoke English. They used British laws. They played British sports and had many other British cultural ideas.

Then, in the late 20th century, things changed. The economies of Asian countries like Japan, Taiwan, Korea, India and China began to grow. People noticed that Australia had a lot of resources. Asian companies opened trade offices in Australia. People from India began to move to Australia. These migrants might not look like people from England, but they spoke "the King's English," because they were once part of the British Empire. Later, people began to move to Australia from Korea, China, other Asian countries, and Africa.



Today, Australia still has Catholics from Ireland and Protestants from England and Scotland. In addition, it now has Buddhists from China. It has Hindus from India. It has Muslims from Pakistan, Bangladesh, and Indonesia. The number of people who speak English as their first language has gone down. It was nearly 100% in the 1950s. It is less than 85% today.

In other words, Australia is no longer far away from the center of the world economy. As Asian economies expand, Australia is now closer to the action. Its resources are in great demand. As a result, the country now has a positive balance of trade.

Definition: balance of trade is the value of exports minus the value of imports.

A *positive* balance of trade means that people get more income from exports than they spend for imports. The economy is growing faster than in the United States. Family income in Australia is almost as high as in the United States. Unemployment is much lower.

One interesting comparison is in health care. Australia has a modern medical system. It is a government program combined with private insurance. Australians spend about 9 percent of their income on health care. Their life expectancy, however, is almost 80 years for men and 85 years for women. In other words, Australians spend only half as much per person on health care as Americans, but they live longer. That's a good measure of success!

Many other comparisons point to the same conclusion :

*Over time, Australia has changed. It is no longer a distant colony.
It is now a world leader in human development.*

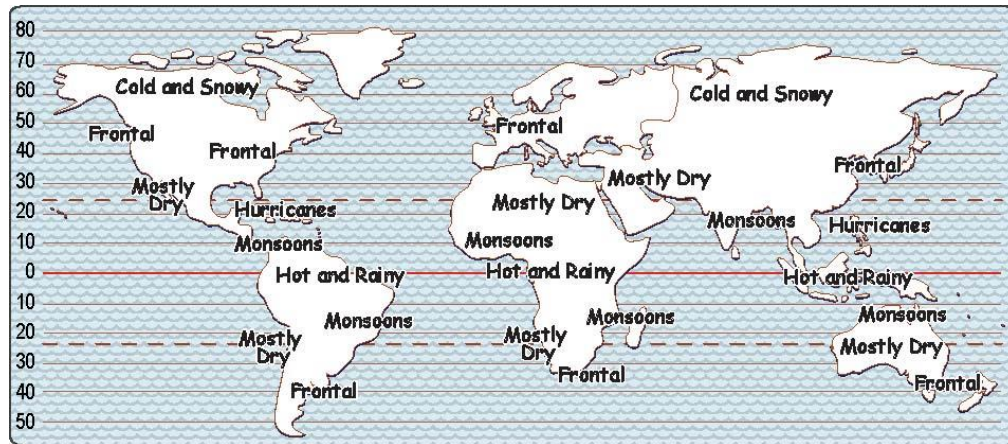
Consequence #8: Distance from the equator helps determine the climate of a place.

The latitude of a place is the most powerful influence on its weather.

Definition: **Latitude** is a measure of distance away from the Equator.

- Places near the Equator tend to be hot and rainy. Much of South America is close to the Equator. As a result, South America has the largest hot rainforest on earth. Rainforests are valuable resources, but they are also difficult places for humans to live.
- Places far from the Equator tend to be very cold in winter. Most of Russia is far from the Equator. As a result, more than half of Russia is too cold to grow food for humans.

Australia is in between those extremes. It is a tropical country. The Tropic of Capricorn runs right through it. Places near a Tropic line are likely to be deserts, unless there is really warm water nearby, like the Gulf of Mexico. Only a small part of northeastern Australia is near that kind of water. Most of Australia is a desert. It is called (no surprise!) the Great Australian Desert.



The southern coast of Australia has climate like California or Italy. These places are between the tropical deserts and the *frontal* weather in the middle latitudes.

Definition: **Frontal climate** has a lot of changes from day to day. These changes are caused by moving fronts between warm and cold air

Places between deserts and frontal areas have long, hot summers and cool, rainy winters. Not surprisingly, parts of Australia look like California or Italy. People in all these places grow lemons, olives, avocados, and wine grapes. These products, however, are heavy. The price of Australian wine, for example, has to include the cost of shipping fragile bottles a long distance.

Distance also has an effect on the ability to sell factory products. In the China chapter, you will see how a large population can support many inventors and manufacturers. Australia's small population cannot do that. As a result, people in Australia have to buy many things from other countries.

That's a problem, and you already know why. It is expensive to ship things a long distance.

These principles apply to many other parts of the Australian economy, from movie production to education. In all cases, people have to focus on a few things that they can do well. They can then sell these products in order to buy the things they do not have enough people to produce.

This is a complex issue. It requires very sophisticated geographic thinking. The big question, however, is a simple one:

What can we make or do well in the place where we live?

Geographic concept: the idea of a BIGJob, and why BIGJobs are important

People in every place need to identify some BIGJobs (Basic Income Generating Jobs).

Definition: A **BIGJob** does something that can be sold to people in other places.

BIGJobs are very important. The number of people who actually do BIGJobs, however, can be quite small. In some places, fewer than one out of twenty people do the bigjobs. Other people do what you might call otherjobs. They are store clerks, truck drivers, teachers, road repairers, etc.

In other words, they do jobs that help people in the local area. In effect, the otherjobs support the people who do BIGJobs. The BIGJobs earn the money to pay for things that people want but do not produce themselves. For example, people in many countries have to buy fuel from other countries. Other people buy food, movies, cars, or computers.

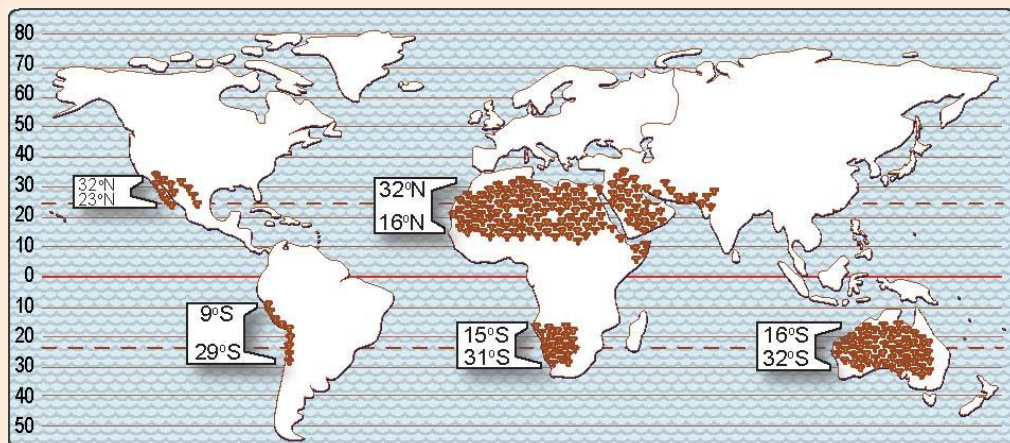
Remember: people must find BIGJobs that fit the conditions in their place. They have to figure out what their country can produce to sell to the rest of the world. Moreover, their BIGJobs have to make enough money to pay all of the costs in the place where they live:

- In distant places like Australia, people have to pay for transportation.
- In cold places like Russia or Canada, they have to pay for heating.
- In hot places like Florida, they have to pay for air-conditioning.
- In dry places like Arizona, they have to pay to have water brought from distant mountains.
- And in crowded places like Tokyo or New York, they have to pay extra for rent. The high cost of property in crowded places helps drive up the price of many things there.

In short, every place in the world has conditions that influence what people can do there. This is one reason why we study geography. Learning geography can help us make good decisions about BIGJobs. Those BIGJobs, in turn, can support people who do Otherjobs.

This chapter was about one big geographic idea – the cost of distance. In other chapters we will look at the effects of elevation, latitude, area, population, cultures, and even the shape of the land. These geographic conditions can influence what people do in a place.

The conditions in a place are not a fixed limit. Smart people can often find a way to solve any local problem. But geographic conditions are important, because they can lower your profit. This brings us back to a basic fact about Australia. It is located at the right distance from the equator to have a tropical desert. The map shows that Australia has one of the biggest deserts on the planet. It's hard to find profitable BIGJobs in a desert!



Consequence #9: Distance has even greater effects on islands in the Pacific Ocean.

The ancient sailors of Polynesia were amazing. They had no motors or metal tools. They had no nails, wire, or radios. They made boats out of logs and bundles of grass. Then they attached small sails, put the boats in the ocean, and traveled from island to island.

Some of this travel was fairly easy. Many islands were only a few miles apart. On clear days, people could see one island from another. If islands were a little farther away, people could sometimes see the clouds that formed above them on hot days. Later, however, they used the same kind of boats and sails to travel thousands of miles to isolated islands like Hawai'i.

Definition: to be **isolated** is to be far from others, like an island in the middle of an ocean

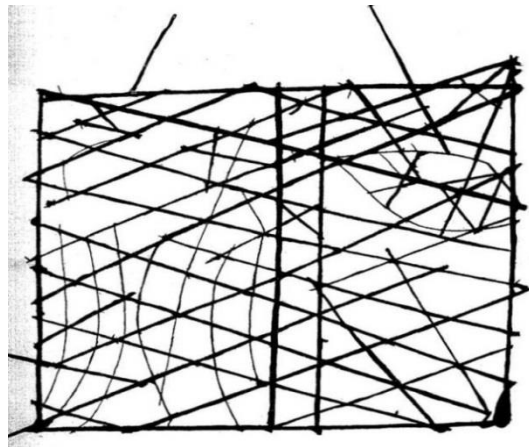
The ancient sailors of Polynesia were either very skillful or very lucky (or both!)

No one, however, can deny that they had a lot of courage.

Today, we can fly airplanes to these islands. Many Pacific islands have become tourist destinations. Most people, however, never get to see the islands, except in pictures.

You already know why – these islands are very far away. As a result, it costs a lot of time and money to get there. If you do make the trip, you find that everything costs a lot. The high cost is because nearly everything has to be brought to the island from far away. Shipping things is expensive.

(You already knew that!)



Polynesian stick map shows islands and currents.
("Polynesia" means "many islands.")

Some really remote islands have beautiful beaches, palm trees, and sunsets, but they do not have tourist hotels. No tourist ever goes to these islands, because they are military bases. These islands are strategically important. They may be the only areas of dry land in thousands of square miles of ocean.

During World War II, the "battle in the Pacific" was really a long sequence of operations to capture one island after another, always getting closer to Japan. (In fact, the war started with a sneak attack. Attacking Pearl Harbor was part of a Japanese military plan to get closer to the United States.)

We will end this chapter with a sad note about the future of islands. Many islands in the Pacific Ocean are coral reefs. You can read more about coral on the internet or in a biology book. Here, we just note that coral islands are usually very low. Their highest parts are often less than ten feet above sea level. If glaciers melt and sea levels rise, some of these islands may get covered by water. Whole countries may simply disappear, because there is no high place nearby where the people can go if the water rises. That is the ultimate cost of distance!

(Here, it is important to remember one thing: *the rising sea level is not their fault!*
This raises a messy question: who should pay for the costs of moving?)

Conclusion – what can the big idea of distance help us understand about Australia?

Ultimate cause: Distance is a basic geographical fact. It is the amount of space between two places on the earth.

Big idea: Distance is important, because overcoming distance is expensive. The cost depends on the product, the mode of transportation, and the conditions along the route.

A study area: Australia is a good place to study the effects of distance. The country has about the same area as the United States or China. Internal distances are great, but there are few roads, because the land is dry and the population is small. Great Britain claimed the continent as a colony in spite of its great distance from Europe. All of these facts combine to make Australia a good place to observe and analyze the effects of distance.

Consequence #1: It takes a long time to get to a place that is far away. The great distance from Africa to Australia means that humans got there fairly late. (It took even longer to get to South America, which is even farther from where humans started in Africa).

Consequence #2: Distant places tend to have unusual plants and animals.

Consequence #3: Distance is like a fence around things people don't like (like prisons).

Consequence #4: Distant places are vulnerable to attack, because it is hard to get help. (especially before the invention of telegraphs and communications satellites).

Consequence #5: Distant places are less valuable and therefore less likely to be attacked.

Consequence #6: People in distant places have to grow or make things that are durable, light, and valuable enough to pay the cost of transportation.

Consequence #7: Australia's position in the world economy has changed. It now trades more with China and other countries in Asia, which is much closer than Europe.

Consequence #8: The effect of distance from the equator is also important. Australia is mostly desert, which is one reason why the population density remains very low.

Consequence #9: Island countries in the Pacific Ocean are also affected by the cost of distance, even more than Australia.

Putting it all together:

Distance is an important geographic fact. It was important in 1815, when thousands of soldiers died in an unnecessary battle near New Orleans. They died because news about a peace treaty took a long time to travel across the ocean and then on to Louisiana.

New forms of transportation and communication have made distance less important for some decisions. Other geographic facts about places, therefore, are now more important in some places. But distance is still a basic fact that has to be considered by every person who is deciding where to live, where to work, and where to go for vacation.

Distance is especially important when people decide what BIGJobs they will try to do. (BIGJobs are Basic Income Generating Jobs. They are the things that people produce to sell to other states or countries. They are the jobs that bring money into a community.)

To be successful, a BIGJob has to fit the conditions in a local place. One of those conditions is the distance to your suppliers and customers.