The Future We Face

James M. Vardaman

新たな未来に向かって　―― 英語で考える私たちの世界

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Preface

The 15 chapters in this book deal with issues that our world faces today and will continue to face in the future. Each chapter is intended to encourage you to develop skills in thinking about the subject and increasing your vocabulary, so that you will be able to write your own ideas and talk about your views. The topics vary from education and welfare to tourism, science, and engineering.

Begin by reading the Introduction which will give you an overall view of the subject. The Vocabulary Building section will help you expand your use of various forms of words. You may know a noun or verb and discover the forms of adjectives and adverbs, too.

The Readings are approximately 250 words long. Read each one silently one time, then read it aloud several times, so you can discover the flow of the phrases. The Comprehension Check will help confirm whether you understood the reading correctly.

In the Listening Exercise, you will hear a man and a woman discussing the topic. Try to grasp each person's opinion. The following comprehension questions will help you check whether you really understood their conversation.

The final Writing Exercise is an opportunity for you to organize your own thoughts about the topic of the chapter. Write down your ideas. Then you can practice saying these ideas in the Speaking Exercise.

Through the active use of all four skills, you can develop your ability to communicate with people who do not speak Japanese. You can discuss important issues that we all face now and will need to cooperate in solving in the years to come.

Educate yourself, as much as possible.

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Contents

Unit 1

Building from Above

Introduction

Until now the idea of building or constructing something has been based on gravity, so we have assumed that we need to start at the bottom and go up from there. However, with new technology, it has become possible to consider building things from above.

Vocabulary Building

Fill in the blanks by referring to the derivatives. If you are not sure, look it up in the dictionary.

Noun	Adjective	Verb	Adverb
a.	specific	**b.**	specifically
adjustment	adjustable	**c.**	
	basic		**d.**
e.	beneficial	benefit	beneficially

1. She didn't _____ when she would return to the office.

2. I'm trying to _____ myself to university life.

3. He's _____ a kind person.

Reading

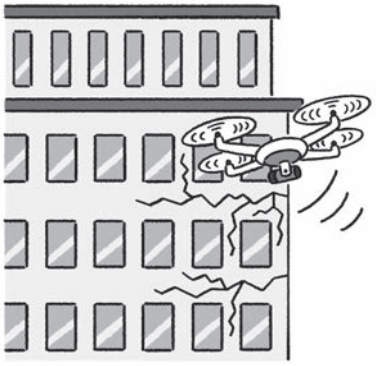
01

Wasps and bees are skillful flying builders. Working in teams, they deposit wax or wood pulp according to complex specifications that become hives or nests. They adjust their plans as they go, depending on the weather, materials, and available workers. Technology now is making it possible for humans using flying robots to do something similar.

Early 3D printers were limited by the range of the nozzle that deposited the material layer by layer. But scientists have developed drones which are basically two kinds of flying robots that can do the work of builders and supervisors. The builder robots carry the 3D-printing nozzle and the supervisor robots scan the progress of the builders. Layer by layer, these two types of robots deposit material, make adjustments where necessary, and compute the next layer that is needed.

Flying robots have already proven capable of manufacturing small complex structures. As they become more advanced, they will be able to build large structures using different materials. Because they can operate almost anywhere, they will be able to fix things in dangerous places or places that are not easy to get to. This might include cracks on tall buildings. They might be able to locate and seal leaks in pipelines carrying gas or oil in remote locations. An added benefit is that it would not be necessary to construct scaffolding to carry out construction. This alone would save considerable time and expense. Humans will need new skills to make flying robots work right, but the benefits seem worth the effort.

(254 words)



Comprehension Check

1. T F Bees and wasps work independently in building hives.

2. T F 3D printers place building materials one layer at a time.

3. T F New technology uses two types of robots to place material accurately.

4. T F In the future only small structure construction will be possible.

5. T F Flying robots may eventually be able to operate in remote areas.

Listening Exercise

Listen to the following conversation and answer the questions below. 02

1. Why is the man worried about robots building things?

a. Because robots may make mistakes.

b. Because robots may take people's jobs.

c. Because robots are unsafe.

2. What is the woman's view about the human workers?

a. They will continue to be necessary in the future.

b. Their current skills will still be used.

c. Workers will be monitored safely by robots.

Writing & Speaking Exercise

Organize your own ideas and write them down. 03

A: You know, it worries me just a little bit that there are technology and robots that are capable of building things so easily.

B: Why is that?

A: _____

_____

_____

_____

1. Listen to the start of the conversation above.

2. Now write a continuation of the conversation.

- Brainstorm and put your ideas in the space below.

You can use the tips below, *if you need to.*

Possible ideas:

Strength of the building	Building materials are necessarily lighter.
Possible robot failure	A building built by a malfunctioning robot is unsafe.
Safety during construction	The drone might drop things by mistake.

Start the conversation with this phrase:

I am worried about ~ because ~
I am concerned about ~.

- Organize your own ideas and write them down in the underlined area above.

3. Practice the conversation using your model above.