МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ
РОССИЙСКОЙ ФЕДЕРАЦИИ
федеральное государственное бюджетное образовательное учреждение
высшего образования
МОСКОВСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ
ГЕОДЕЗИИ И КАРТОГРАФИИ
(МИИГАиК)

Факультет архитектуры и градостроительства
Кафедра лингвистики

ДОКУМЕНТ ПОДПИСАН
ЭЛЕКТРОННОЙ ПОДПИСЬЮ

Сертификат: 5387FD2AF5B17FED816FDE9A1D4973B1
Владелец: Степанченко Алексей Леонидович
Действителен: с 21.07.2025 по 14.10.2026

«УТВЕРЖДАЮ»
Проректор
А. Л. Степанченко
24 марта 2023 г.

ФОНД ОЦЕНОЧНЫХ СРЕДСТВ ПО ДИСЦИПЛИНЕ (МОДУЛЮ) ОБЩЕ-ГУМАНИТАРНЫЙ «Б1.О.04.03 ИНОСТРАННЫЙ ЯЗЫК»

Уровень высшего образования: бакалавриат

Направление подготовки: 07.03.01 Архитектура

Направленность(профиль) подготовки: Архитектура

Квалификация (степень) выпускника: бакалавр

Форма обучения: очная

Год набора (приема на обучение): 2023

Срок получения образования: 5 лет

Объем: в зачетных единицах: 5 з.е.
в академических часах: 180 ак.ч.

Москва, 2023

Разработчики:

Старший преподаватель кафедры Лингвистики Трофименко С. А.

Старший преподаватель кафедры Лингвистики Ацута Е. В.

Заведующий кафедрой Лингвистики, доцент Герасимов И. П.

Фонд оценочных средств по дисциплине (модулю) составлен в соответствии с требованиями ФГОС ВО по направлению подготовки 07.03.01 Архитектура, утвержденного приказом Минобрнауки от 08.06.2017 № 509

Согласование и утверждение

№	Подразделение	Ответственное лицо	ФИО	Виза	Дата, протокол (при наличии)
1	факультет Архитектуры и градостроительства	Председатель ученого совета факультета	Хачатрян К. О.	Рассмотрено	13.12.2022, № 3-22/23

1. Планируемые результаты обучения, соотнесенные с планируемыми результатами освоения образовательной программы

УК-4 Способен осуществлять деловую коммуникацию в устной и письменной формах на государственном языке Российской Федерации и иностранном(ых) языке(ах)

УК-4.1 Выбирает стиль общения на государственном языке РФ и иностранном языке в зависимости от цели и условий партнерства; адаптирует речь, стиль общения и язык жестов к ситуациям взаимодействия

Знать:

УК-4.1/Зн1 Лексический минимум в объеме 2000 учебных лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессионального содержания из зарубежных источников

Уметь:

УК-4.1/Ум1 Выполнять переводы технических текстов с иностранного языка

Владеть:

УК-4.1/Нв1 Навыками чтения, аудирования, разговорной речи, письмо в профессиональной области

УК-4.2 Выполняет перевод профессиональных текстов с иностранного языка на государственный язык РФ и с государственного языка РФ на иностранный

Знать:

УК-4.2/Зн1 Основные способы работы на языковым и речевым материалом

Уметь:

УК-4.2/Ум1 Выполнять перевод технических текстов с иностранного языка

Владеть:

УК-4.2/Нв1 Приемами самостоятельной работы с языковым материалом с использованием справочной и учебной литературы

УК-4.3 Ведет деловую коммуникацию в письменной и электронной форме, учитывая особенности стилистики официальных и неофициальных писем, социокультурные различия в формате корреспонденции на государственном и иностранном (-ых) языках

Знать:

УК-4.3/Зн1 Нормы произношения, лексику иностранного языка общеупотребутельного, терминологического и профессионального содержания; типовые способы построения высказываний в устной и письменной речи

Уметь:

УК-4.3/Ум1 Осуществляет коммуникацию с зарубежными партнерами; переводит научно-техническую литературу, связанную с профессиональной деятельностью

Владеть:

УК-4.3/Нв1 Стратегиями проведения сопоставительного анализа факторов культуры различных стран

УК-4.4 Представляет свою точку зрения при деловом общении и в публичных выступлениях

Знать:

УК-4.4/Зн1 Лексический минимум в объеме 2000 лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессиональго содержания из зарубежных источников

Уметь:

УК-4.4/Ум1 Осуществлять коммуникацию с зарубежными партнерами; переводить научно-техническую литературу по вопросами, связанным с профессиональной деятельностью

Владеть:

УК-4.4/Нв1 Компенсаторными умениями, помогающими преодолеть "сбои" в коммуникации, вызванные объективными и субъективными, социокультурными причинами

2. Показатели и критерии оценивания компетенций

Планируемые результаты освоения программы	Уровень овладения	Критерии оценивания (перечень сформированных ИДК/ЗУВ по уровням освоения)
УК-4 Способен осуществлять деловую коммуникацию в устной и письменной формах на государственном языке Российской Федерации и иностранном(ых) языке(ах)	Повышенный	ИДК УК-4.1 Выбирает стиль общения на государственном языке РФ и иностранном языке в зависимости от цели и условий партнерства; адаптирует речь, стиль общения и язык жестов к ситуациям взаимодействия Знать: УК-4.1/Зн1 Лексический минимум в объеме 2000 учебных лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессионального содержания из зарубежных источников Уметь: УК-4.1/Ум1 Выполнять переводы технических текстов с иностранного языка Владеть: УК-4.1/Нв1 Навыками чтения, аудирования, разговорной речи, письмо в профессиональной области ИДК УК-4.2 Выполняет перевод профессиональных текстов с иностранного языка на государственный язык РФ и с государственного языка РФ на иностранный Знать: УК-4.2/Зн1 Основные способы работы на языковым и речевым материалом Уметь: УК-4.2/Ум1 Выполнять перевод технических текстов с иностранного языка Владеть: УК-4.2/Нв1 Приемами самостоятельной работы с языковым материалом с использованием справочной и учебной литературы

			ИДК УК-4.3 Ведет деловую коммуникацию в письменной и электронной форме, учитывая особенности стилистики официальных и неофициальных писем, социокультурные различия в формате корреспонденции на государственном и иностранном (-ых) языках Знать: УК-4.3/Зн1 Нормы произношения, лексику иностранного языка общеупотребутельного, терминологического и профессионального содержания; типовые способы построения высказываний в устной и письменной речи Уметь: УК-4.3/Ум1 Осуществляет коммуникацию с зарубежными партнерами; переводит научно-техническую литературу, связанную с профессиональной деятельностью Владеть: УК-4.3/Нв1 Стратегиями проведения сопоставительного анализа факторов культуры различных стран ИДК УК-4.4 Представляет свою точку зрения при деловом общении и в публичных выступлениях Знать: УК-4.4/Зн1 Лексический минимум в объеме 2000 лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессиональго содержания из зарубежных источников Уметь: УК-4.4/Ум1 Осуществлять коммуникацию с зарубежными партнерами; переводить научно-техническую литературу по вопросами, связанным с профессиональной деятельностью Владеть: УК-4.4/Нв1 Компенсаторными умениями, помогающими преодолеть "сбои" в коммуникации, вызванные объективными и субъективными, социокультурными причинами

	Базовый	ИДК УК-4.1 Выбирает стиль общения на государственном языке РФ и иностранном языке в зависимости от цели и условий партнерства; адаптирует речь, стиль общения и язык жестов к ситуациям взаимодействия Знать: УК-4.1/Зн1 Лексический минимум в объеме 2000 учебных лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессионального содержания из зарубежных источников Уметь: УК-4.1/Ум1 Выполнять переводы технических текстов с иностранного языка ИДК УК-4.2 Выполняет перевод профессиональных текстов с иностранного языка на государственный язык РФ и с государственного языка РФ на иностранный Знать: УК-4.2/Зн1 Основные способы работы на языковым и речевым материалом Уметь: УК-4.2/Ум1 Выполнять перевод технических текстов с иностранного языка ИДК УК-4.3 Ведет деловую коммуникацию в письменной и электронной форме, учитывая особенности стилистики официальных и неофициальных писем, социокультурные различия в формате корреспонденции на государственном и иностранном (-ых) языках Знать: УК-4.3/Зн1 Нормы произношения, лексику иностранного языка общеупотребительного, терминологического и профессионального содержания; типовые способы построения высказываний в устной и письменной речи Уметь: УК-4.3/Ум1 Осуществляет коммуникацию с зарубежными партнерами; переводит научно-техническую литературу, связанную с профессиональной деятельностью

		ИДК УК-4.4 Представляет свою точку зрения при деловом общении и в публичных выступлениях Знать: УК-4.4/Зн1 Лексический минимум в объеме 2000 лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессиональго содержания из зарубежных источников Уметь: УК-4.4/Ум1 Осуществлять коммуникацию с зарубежными партнерами; переводить научно-техническую литературу по вопросами, связанным с профессиональной деятельностью
	Пороговый	ИДК УК-4.1 Выбирает стиль общения на государственном языке РФ и иностранном языке в зависимости от цели и условий партнерства; адаптирует речь, стиль общения и язык жестов к ситуациям взаимодействия Знать: УК-4.1/Зн1 Лексический минимум в объеме 2000 учебных лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессионального содержания из зарубежных источников ИДК УК-4.2 Выполняет перевод профессиональных текстов с иностранного языка на государственный язык РФ и с государственного языка РФ на иностранный Знать: УК-4.2/Зн1 Основные способы работы на языковым и речевым материалом ИДК УК-4.3 Ведет деловую коммуникацию в письменной и электронной форме, учитывая особенности стилистики официальных и неофициальных писем, социокультурные различия в формате корреспонденции на государственном и иностранном (-ых) языках Знать: УК-4.3/Зн1 Нормы произношения, лексику иностранного языка общеупотребутельного, терминологического и профессионального содержания; типовые способы построения высказываний в устной и письменной речи

		ИДК УК-4.4 Представляет свою точку зрения при деловом общении и в публичных выступлениях Знать: УК-4.4/Зн1 Лексический минимум в объеме 2000 лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессиональго содержания из зарубежных источников

3. Шкала оценивания

Оценка	Критерии оценивания (перечень сформированных ИДК/ЗУВ)
Отлично	УК-4.1 Выбирает стиль общения на государственном языке РФ и иностранном языке в зависимости от цели и условий партнерства; адаптирует речь, стиль общения и язык жестов к ситуациям взаимодействия УК-4.1/Зн1 Лексический минимум в объеме 2000 учебных лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессионального содержания из зарубежных источников УК-4.1/Ум1 Выполнять переводы технических текстов с иностранного языка УК-4.1/Нв1 Навыками чтения, аудирования, разговорной речи, письмо в профессиональной области УК-4.2 Выполняет перевод профессиональных текстов с иностранного языка на государственный язык РФ и с государственного языка РФ на иностранный УК-4.2/Зн1 Основные способы работы на языковым и речевым материалом УК-4.2/Ум1 Выполнять перевод технических текстов с иностранного языка УК-4.2/Нв1 Приемами самостоятельной работы с языковым материалом с использованием справочной и учебной литературы УК-4.3 Ведет деловую коммуникацию в письменной и электронной форме, учитывая особенности стилистики официальных и неофициальных писем, социокультурные различия в формате корреспонденции на государственном и иностранном (-ых) языках УК-4.3/Зн1 Нормы произношения, лексику иностранного языка общеупотребутельного, терминологического и профессионального содержания; типовые способы построения высказываний в устной и письменной речи УК-4.3/Ум1 Осуществляет коммуникацию с зарубежными партнерами; переводит научно-техническую литературу, связанную с профессиональной деятельностью УК-4.3/Нв1 Стратегиями проведения сопоставительного анализа факторов культуры различных стран

	УК-4.4 Представляет свою точку зрения при деловом общении и в публичных выступлениях УК-4.4/Зн1 Лексический минимум в объеме 2000 лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессиональго содержания из зарубежных источников УК-4.4/Ум1 Осуществлять коммуникацию с зарубежными партнерами; переводить научно-техническую литературу по вопросами, связанным с профессиональной деятельностью УК-4.4/Нв1 Компенсаторными умениями, помогающими преодолеть "сбои" в коммуникации, вызванные объективными и субъективными, социокультурными причинами
Хорошо	УК-4.1 Выбирает стиль общения на государственном языке РФ и иностранном языке в зависимости от цели и условий партнерства; адаптирует речь, стиль общения и язык жестов к ситуациям взаимодействия УК-4.1/Зн1 Лексический минимум в объеме 2000 учебных лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессионального содержания из зарубежных источников УК-4.1/Ум1 Выполнять переводы технических текстов с иностранного языка УК-4.2 Выполняет перевод профессиональных текстов с иностранного языка на государственный язык РФ и с государственного языка РФ на иностранный УК-4.2/Зн1 Основные способы работы на языковым и речевым материалом УК-4.2/Ум1 Выполнять перевод технических текстов с иностранного языка УК-4.3 Ведет деловую коммуникацию в письменной и электронной форме, учитывая особенности стилистики официальных и неофициальных писем, социокультурные различия в формате корреспонденции на государственном и иностранном (-ых) языках УК-4.3/Зн1 Нормы произношения, лексику иностранного языка общеупотребутельного, терминологического и профессионального содержания; типовые способы построения высказываний в устной и письменной речи УК-4.3/Ум1 Осуществляет коммуникацию с зарубежными партнерами; переводит научно-техническую литературу, связанную с профессиональной деятельностью УК-4.4 Представляет свою точку зрения при деловом общении и в публичных выступлениях УК-4.4/Зн1 Лексический минимум в объеме 2000 лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессиональго содержания из зарубежных источников УК-4.4/Ум1 Осуществлять коммуникацию с зарубежными партнерами; переводить научно-техническую литературу по вопросами, связанным с профессиональной деятельностью
Удовлетворительно	УК-4.1 Выбирает стиль общения на государственном языке РФ и иностранном языке в зависимости от цели и условий партнерства; адаптирует речь, стиль общения и язык жестов к ситуациям взаимодействия УК-4.1/Зн1 Лексический минимум в объеме 2000 учебных лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессионального содержания из зарубежных источников

	УК-4.2 Выполняет перевод профессиональных текстов с иностранного языка на государственный язык РФ и с государственного языка РФ на иностранный УК-4.2/Зн1 Основные способы работы на языковым и речевым материалом УК-4.3 Ведет деловую коммуникацию в письменной и электронной форме, учитывая особенности стилистики официальных и неофициальных писем, социокультурные различия в формате корреспонденции на государственном и иностранном (-ых) языках УК-4.3/Зн1 Нормы произношения, лексику иностранного языка общеупотребутельного, терминологического и профессионального содержания; типовые способы построения высказываний в устной и письменной речи УК-4.4 Представляет свою точку зрения при деловом общении и в публичных выступлениях УК-4.4/Зн1 Лексический минимум в объеме 2000 лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессиональго содержания из зарубежных источников
Неудовле-творительно	Результаты обучения не сформированы на достаточном уровне
Оценка	Критерии оценивания (перечень сформированных ИДК/ЗУВ)
Зачтено	УК-4.1 Выбирает стиль общения на государственном языке РФ и иностранном языке в зависимости от цели и условий партнерства; адаптирует речь, стиль общения и язык жестов к ситуациям взаимодействия УК-4.1/Зн1 Лексический минимум в объеме 2000 учебных лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессионального содержания из зарубежных источников УК-4.2 Выполняет перевод профессиональных текстов с иностранного языка на государственный язык РФ и с государственного языка РФ на иностранный УК-4.2/Зн1 Основные способы работы на языковым и речевым материалом УК-4.3 Ведет деловую коммуникацию в письменной и электронной форме, учитывая особенности стилистики официальных и неофициальных писем, социокультурные различия в формате корреспонденции на государственном и иностранном (-ых) языках УК-4.3/Зн1 Нормы произношения, лексику иностранного языка общеупотребутельного, терминологического и профессионального содержания; типовые способы построения высказываний в устной и письменной речи УК-4.4 Представляет свою точку зрения при деловом общении и в публичных выступлениях УК-4.4/Зн1 Лексический минимум в объеме 2000 лексических единиц общего и терминологического характера, необходимого для возможности получения информации профессиональго содержания из зарубежных источников
Не зачтено	Результаты обучения не сформированы на достаточном уровне

4. Контрольные мероприятия по дисциплине

Вид контроля	Форма контроля/Оценочное средство
Текущий контроль	Контрольная работа

Промежуточная аттестация	Контрольная работа Зачет Экзамен

№ п/п	Наименование раздела	Контролируемые ИДК	Вид контроля/ используемые оценочные материалы	
			Текущий	Промежут. аттестация
1	Вводно-коррективный курс	УК-4.1		Зачет Экзамен
2	Общий курс иностранного языка	УК-4.1 УК-4.2	Контрольная работа	Зачет Экзамен
3	Профессионально-ориентированный иностранный язык	УК-4.1 УК-4.2 УК-4.3 УК-4.4	Контрольная работа	Зачет Экзамен

5. Порядок проведения промежуточной аттестации

Порядок проведения промежуточной аттестации регламентируется локальными нормативными актами Университета:

- Положением о формах, периодичности, порядке текущего контроля успеваемости и промежуточной аттестации обучающихся по основным образовательным программам высшего образования – программам бакалавриата, программам специалитета, программам магистратуры в федеральном государственном бюджетном образовательном учреждении высшего образования «Московский государственный университет геодезии и картографии», п.6 «Организация и проведение промежуточной аттестации».
- Положением о порядке осуществления образовательного процесса, проведения текущего контроля успеваемости и промежуточной аттестации обучающихся с применением электронного обучения и дистанционных образовательных технологий в федеральном государственном бюджетном образовательном учреждении высшего образования «Московский государственный университет геодезии и картографии», п.8 «Проведение промежуточной аттестации с применением ЭО и ДОТ».

Промежуточная аттестация: Зачет, 2 семестр.

При проведении промежуточной аттестации применяется среднее арифметическое значение оценок, полученных за каждый элемент оценивания, указанный в билете (ответ на устный вопрос; просмотр текста и ответ на вопрос по нему; полный письменный перевод текста). Итоговая оценка по дисциплине рассчитывается как отношение суммы оценок к количеству полученных оценок (три). При проведении оценивания по вопросам и заданиям, указанным в билете, в ходе промежуточной аттестации преподаватель может учитывать результаты текущего контроля.

Промежуточная аттестация: Экзамен, 3 семестр.

При проведении промежуточной аттестации применяется среднее арифметическое значение оценок, полученных за каждый элемент оценивания, указанный в билете (ответ на устный вопрос; просмотр текста и ответ на вопрос по нему; полный письменный перевод текста). Итоговая оценка по дисциплине рассчитывается как отношение суммы оценок к количеству полученных оценок (три). При проведении оценивания по вопросам и заданиям, указанным в билете, в ходе промежуточной аттестации преподаватель может учитывать результаты текущего контроля.

6. Оценочные материалы текущего контроля

Раздел 2. Общий курс иностранного языка

Контролируемые ИДК: УК-4.1 УК-4.2

Тема 2.3. Страны изучаемого языка

Форма контроля/оценочное средство: Контрольная работа

Вопросы/Задания:

1. Переведите предложения на формы множественного числа существительных

1. The criteria (not criterions) for sustainable design are constantly evolving.
2. Modern stadia (not stadiums) often feature retractable roofs.
3. The museum displayed ancient arcana (not arcanums) of Gothic architecture.
4. Phenomena (not phenomenons) like bioluminescent facades redefine urban aesthetics.
5. The architect studied medieval strata (not stratums) in the excavation site.
6. The fora (not forums) on urban planning attracted global experts.
7. The blueprint included precise indices (not indexes) for load-bearing walls.
8. Lumina (not lumens) from skylights created dynamic shadow patterns.
9. The design used intersecting axes (not axises) for symmetry.
10. The ruins revealed hidden cella (not cellas) from Roman temples.
11. The contractor ordered 50 sheep of tempered glass (not sheeps).
12. The plaza's series of arches were inspired by Moorish design (not serieses).
13. The exhibition featured deer-horn chandeliers (not deers).
14. The curvier (not more curvy) facade softened the building's harsh lines.
15. This was the most optimal (not optimest) layout for energy efficiency.
16. The less conventional materials included recycled mycelium bricks.
17. The state-of-the-art acoustics enhanced the concert hall's design.
18. A solar-powered canopy reduced the building's carbon footprint.
19. The abstract (not abstracts) in her sketches challenged traditional forms.
20. The sublime (not sublimes) in Gothic architecture lies in its verticality.

2. Переведите предложения на пассивные конструкции

1. Sustainable materials are prioritized in modern eco-friendly designs.
2. Glass facades are used to maximize natural light in high-rise buildings.
3. The new museum is being constructed with earthquake-resistant technology.
4. Traditional techniques are being revived in contemporary brick architecture.
5. The historic building was restored to preserve its original Art Deco features.
6. The blueprint was revised after the client requested additional floors.
7. The steel framework was being assembled when the storm delayed construction.
8. The interior was being redesigned while the exterior remained untouched.
9. The skyscraper's foundation has been reinforced to support future expansion.
10. Several heritage sites have been demolished due to urban redevelopment.
11. The permits had been approved before the groundbreaking ceremony.
12. The architect's proposal had been rejected before a better alternative was found.
13. The pedestrian bridge will be completed by the end of next year.
14. 3D-printed structures will be incorporated into affordable housing projects.
15. The renovation will have been finished before the grand reopening.
16. All safety inspections will have been conducted prior to occupancy.
17. Zoning laws must be followed to avoid legal complications.
18. This material can be repurposed for sustainable construction.
19. The ventilation system was designed by an award-winning engineer.
20. The ancient ruins are being studied for their historical significance.

3. Выберите слова, соответствующие определению

pediment fanlight quoins column pilaster eaves turret roofs facade dormer

1. _____ A support pillar, usually round, found on porches and as a decorative detail.
2. _____ A window opening at the roof level, topped by a front gable or shed roof.
3. _____ The face of a building, usually referring to the front.

4. _____ A semi-circular window placed atop a door, commonly seen in Federal and Colonial Revival style buildings.
5. _____ A triangular space created by a front facing gable roof, often seen in Classical Revivial style buildings.
6. A _____ is a narrowly protruding column attached to a wall, giving the illusion of a real free standing support column.
7. _____ can be steep, flat or gently sloped and take many forms, gable, gambrel, hipped, stepped gable, shed, pent or Mansard. The roof type is an important key to identifying the style of a building.
8. _____ A small tower at the corner of a building.
9. _____ are decorative rectangles or squares of stone, brick, wood or concrete, placed at the corners of buildings to add architectural interest.
10. _____ The edge of the roof that overhangs the exterior walls, sometimes with exposed rafters.

4. Заполните пропуски нужными словами

deriving horizontal designed masterpiece inhabit(v)
chimney interiors stained glass evolving create

Through the turn of the century, Wright's distinctively personal style was _____, and his work in these years foreshadowed his so-called "prairie style," a term _____ from the publication in 1901 of "A Home in a Prairie Town" which he designed for the Ladies' Home Journal.

Prairie houses were characterized by low, _____ lines that were meant to blend with the flat landscape around them. Typically, these structures were built around a central _____, consisted of broad open spaces instead of strictly defined rooms, and deliberately blurred the distinction between interior space and the surrounding terrain. Wright acclaimed "the new reality that is space instead of matter" and, about architectural _____, said that the "reality of a building is not the container but the space within." The W.W. Willits house, built in Highland Park, Illinois in 1902, was the first house that embodied all the elements of the prairie style. His _____ of the prairie style is the Robie House, built in Chicago in 1909.

Wright did not aspire simply to design a house, but to _____ a complete environment, and he often dictated the details of the interior. He designed _____, fabrics, furniture, carpet and the accessories of the house. Legend has it that, in at least one case, he even _____ the gowns of his client's wife. The controlling factor was seldom the wishes of the individual client, but Wright's belief that buildings strongly influence the people who _____ them. He believed that "the architect is a molder of men, whether or not he consciously assumes the responsibility."

Тема 2.5. Россия в современном мире, Москва, мой родной город.

Форма контроля/оценочное средство: Контрольная работа

Вопросы/Задания:

1. Переведите предложения с причастиями и герундием

1. Designing sustainable buildings requires a deep understanding of eco-friendly materials.
2. Constructing a skyscraper involves coordinating multiple teams of engineers and architects.
3. Incorporating natural light into a building enhances its aesthetic appeal.
4. Balancing form and function is essential when planning a modern home.
5. Using glass facades in architecture allows for blurring the line between indoor and outdoor spaces.
6. Restoring historical buildings helps preserve cultural heritage while adapting them for modern use.

7. Studying Gothic architecture involves analyzing ribbed vaults and flying buttresses.
8. Employing parametric design techniques enables architects to create com-plex, flowing structures.
9. Optimizing space in urban architecture often means building vertically rather than horizontally.
10. Mimicking organic shapes in architecture can result in visually striking buildings.
11. Integrating smart technology into buildings improves energy efficiency while reducing costs.
12. Landscaping around a structure plays a key role in enhancing its overall design.
13. Experimenting with unconventional materials can lead to innovating architectural solutions.
14. Observing the symmetry in classical architecture helps in understanding its time-less appeal.
15. Combining steel and glass creates a sleek, modern look while ensuring structural stability.
16. Preserving old facades while renovating interiors is a common practice in adaptive reuse.
17. Sketching initial concepts is the first step in visualizing an architectural project.
18. Following zoning laws is crucial when developing urban infrastructure.
19. Contrasting traditional and contemporary styles can pro-duce captivating architectural hybrids.
20. Assessing the environmental impact of a building includes calculating its carbon footprint.

2. Выберите термин в соответствии с его описанием

cornice column tower roof cupola frieze porch parapet quoins eaves

1. A _____ is the finished edge of the roof where it meets the exterior wall, of varying sizes, sometime plain, but often decorative and marked by brackets, dentils, medalions or some other decorative feature.
2. A _____ is a decorative, small, projecting tower at the top of the roof of a building, often square, round or ocatagonal in shape.
3. A _____ is the panel beneath the cornice at the top of a building' exterior wall which is often ornamented with brackets, dentils or modallions.
4. A _____ is a low stone or brick wall at the top of a building.
5. _____ are decorative rectangles or squares of stone, brick, wood or concrete, placed at the corners of buildings to add architectural interest.
6. _____ The edge of the roof that overhangs the exterior walls, sometimes with exposed rafters.
7. _____ A roofed space outside the mains support walls of a building.
8. _____ A tall structure, either square or round in shape, rising higher than the rest of the building.
9. _____ A support pillar, usually round, found on porches and as a decorative detail.
10. _____ can be steep, flat or gently sloped and take many forms, gable, gambrel, hipped, stepped gable, shed, pent or Mansard. The roof type is an important key to identifying the style of a building.

3. Answer the question:

What does the science of history of architecture study?

1. Architecture development process in connection with the biological processes
2. The relationship between people and animals
3. Architecture development process in connection with the historical processes

4. Choose the correct expression:

The detailed study of a site is

1. site analysis
2. bird analysis
3. cat analysis

5. Complete the sentence using the correct word:

_____ is your address?

1. What
2. How
3. That

6. Do you speak Japanese? No, I _____.

1. speaking not
2. speak not
3. don't

7. Pick up the correct word:

a person or company, responsible for the physical construction of a building is _____

1. scientist
2. constructor
3. doctor

8. What do we call:

a thin tall structure usually rising above the castle or building that it is attached to?

1. tower
2. table
3. tree

9. When was the University of .Geodesy and Cartograpy founded?

1. 1779
2. 1920
3. 2000

10. What do modal verbs show?

1. modality
2. time
3. voice

11. Choose the correct sentence:

1. I am a student.
2. A student I am.
3. A student am I.

Раздел 3. Профессионально-ориентированный иностранный язык

Контролируемые ИДК: УК-4.1 УК-4.2 УК-4.3 УК-4.4

Тема 3.1. Моя специальность: Современное состояние изучаемой науки, технологии.

Форма контроля/оценочное средство: Контрольная работа

Вопросы/Задания:

1. Заполните пропуски соответствующими словами

gigantic constructed separated surrounding spatial
erected concrete L-shaped space buildings

The small Malcolm E. Willey House, designed in 1933 and _____ the following year in Minneapolis, marked the beginning of what amounted to a second career for Wright. Modest in size, the Willey House was low and _____ with little ornamentation and represented a revolutionary change in domestic planning; i.e., the living room and dining room were completely unified in a single _____, and the kitchen ("workspace") was only _____ from the living area by a range of shelves. This house is said to be the "bridge" between the prairie houses and the Usonian houses, the first of which was _____ in 1937 near Madison, Wisconsin. With the Usonian houses, Wright achieved his goal of providing a small, modestly priced and easily built house for the average middle-class family that possessed the aesthetic, organic and _____ characteristics of the prairie style house.

Wright's most important _____ constructed in the 1930's were Fallingwater (the Edgar J. Kaufmann House) at Bear Run, Pennsylvania and the Administration Building of the S.C. Johnson and Son Company in Racine, Wisconsin. Both were designed in 1935-36 and each makes bold use of _____, but the two buildings are worlds apart in style and character. Combining features of the prairie houses and the California concrete block houses, Fallingwater has been described as "the apotheosis of the horizontal." Its cantilevered terraces soar dramatically over a natural waterfall, and the interior of the house blends seamlessly into the _____ woods. The Johnson Building, resembling a "_____ and beautiful machine," is based

on the curve rather than the cantilever and turns inward upon itself, ignoring the existence of the outside world.

2. Переведите предложения с глаголами в сослагательном наклонении

1. It's essential that the design be sustainable and energy-efficient.
2. The client insists that the architect use natural materials whenever possible.
3. We recommend that the building have large windows for passive heating.
4. If the budget were unlimited, we would incorporate smart-home technology.
5. The structure would appear lighter if the columns were slimmer.
6. She designed the courtyard as though it were an open-air gallery.
7. It's crucial that the foundation be reinforced before construction begins.
8. The city council demands that the historic facade remain intact.
9. The contract stipulates that the contractor meet all safety regulations.
10. I suggest that the roof be sloped for better rainwater drainage.
11. They proposed that the plaza include more green spaces.
12. We prefer that the materials be locally sourced.
13. Be it a skyscraper or a cottage, functionality must come first.
14. So help me God, this building will withstand earthquakes.
15. Long live innovative architecture!
16. Suppose the client reject our initial proposal—what's Plan B?
17. It's time the government invest more in affordable housing.
18. I'd rather the design emphasize simplicity over ornamentation.
19. Had the architect considered acoustics, the concert hall would sound better.
20. Should the zoning laws change, we could add two more floors.

3. Переведите текст

Jean Nouvel's Unbuilt Visions: The Radical Architecture That Might Have Been

Few architects have generated as many groundbreaking—yet unrealized—designs as Jean Nouvel. His rejected or suspended projects reveal an even bolder creative mind than his built works suggest, offering tantalizing glimpses of alternative urban futures. These unbuilt schemes, ranging from floating museums to vertiginous skyscrapers, demonstrate Nouvel's unwavering commitment to architectural experimentation, even at the cost of practicality.

1. Tour Sans Fins (1989) – The Phantom of La Défense

Nouvel's most famous unbuilt work was meant to dominate Paris' skyline: a 424-meter tapered cylinder in La Défense, its facade transitioning from granite at the base to glass to aluminum and finally to a "disappearing" mirrored apex reflecting clouds. The design solved wind resistance through aerodynamic form while creating optical illusions of dematerialization. Canceled due to the 1990s recession, its legacy lives on in later supertalls like The Shard.

2. Lyon Concert Hall (1990s) – The Sonic Flower

A petal-like structure designed to bloom open during performances, this acoustically perfect hall would have combined Nouvel's signature light play with Bernard Tschumi's deconstructivist influences. Budget cuts killed the project, though fragments of its DNA appeared in his later Copenhagen Concert Hall.

3. Tokyo Opera City (1997 Competition) – The Fractured Mirror

Nouvel's losing competition entry proposed a facade of shattered glass planes angled to reflect Tokyo's skyline in cubist fragments. The jury deemed it too destabilizing for conservative clients—a fate shared by his unbuilt 2008 Tokyo Tower redesign, which would have clad the structure in LED panels displaying real-time weather data.

4. Marseille Maritime Terminal (2004) – The Floating Promenade

Envisioned as a kinetic pier with undulating canopies mimicking waves, this project fell victim to political turnover. Its fluid concrete forms later influenced Zaha Hadid's Port House in Antwerp.
5. National Library of Kazakhstan (2009) – The Moebius Strip
A toroidal structure with 4 interlocking rings symbolizing Kazakhstan's cultural crossroads. Rejected for its €1 billion cost, its DNA resurfaced in MAD Architects' Harbin Opera House.
Why They Matter
These unrealized projects reveal Nouvel's "architecture of resistance"—his willingness to:
- Challenge gravity (Vertical City in Singapore)
- Redefine public space (EuropaCity's artificial climate dome)
- Provoke through form (Seine Musicale's abandoned solar sail concept).

Тема 3.2. Моя специальность: История изучаемой науки и видные ученые

Форма контроля/оценочное средство: Контрольная работа

Вопросы/Задания:

1. Переведите текст

David Chipperfield and the Art of Silent Classicism
Among contemporary architects, few have engaged with classical principles as thoughtfully as Sir David Chipperfield (b. 1953). The British architect—winner of the 2023 Pritzker Prize—has spent four decades reinterpreting antiquity's lessons for the modern age, creating buildings that whisper rather than shout their connections to the past. His work demonstrates how classical proportion, material honesty, and civic dignity can be translated into a language that feels both timeless and unmistakably contemporary.
A Quiet Rebellion Against Postmodernism
Educated at London's Architectural Association during the 1970s—an era dominated by either Brutalism's rawness or Postmodernism's whimsy—Chipperfield developed an early aversion to architectural theatrics. His formative years in the office of Norman Foster and Richard Rogers exposed him to high-tech modernism, but travels through Italy and Japan cemented his belief in architecture's anthropological roots. This dual influence produced a unique design philosophy: "Modern in means, classical in spirit."
Key Projects: The Classical Subtext
1. Neues Museum, Berlin (2009) – The Patina of Time
Chipperfield's reconstruction of this 19th-century museum, bombed in WWII, became a masterclass in classical dialogue. Rather than replicating the original's ornate neo-Renaissance halls, he:
- Preserved war scars on surviving walls
- Designed new sections in recessed concrete and handmade bricks
- Aligned new vaulted galleries with the original axial plan

The result feels like a palimpsest—layers of history harmonized through proportion rather than ornament. The Egyptian Court's columns, stripped of capitals but perfectly spaced, evoke stoa without literal mimicry.
2. Royal Academy Masterplan, London (2018) – Hidden Symmetry
For this 300-year-old institution, Chipperfield carved out a new subterranean gallery linking Burlington House to its 19th-century additions. The intervention appears minimalist, but its genius lies in:
- A double-height "bridge" gallery mirroring the Academy's original courtyard proportions
- York stone floors continuing the building's geological memory

Bronze door handles scaled to human touch, recalling Alberti's theories
3. Museo Jumex, Mexico City (2013) – The Abstracted Colonnade
This travertine-clad cube reimagines the classical colonnade as a geometric façade grid. The roof's sawtooth profile nods to industrial sheds while filtering light like a Roman oculus. Inside, the central stair—a deliberate processional route—echoes the spatial hierarchy of Renaissance palaces.

7. Оценочные материалы промежуточной аттестации

2 семестр, Зачет
Контролируемые ИДК: УК-4.1 УК-4.2 УК-4.3 УК-4.4
Вопросы/Задания:

1. Answer the question:

What places of interest are there in London?

2. Answer the question:
What do you know about theaters in Moscow?
3. Answer the question:
What is the longest river in the European part of Russia? What can you say about it?
4. Answer the question:
Does Russia have a borderline with the USA?
5. Answer the question
In what way have computers changed our life?
6. Answer the question:
What do you know about climate in England?
7. Answer the question:
Why is the problem of water pollution becoming a global problem?
8. Answer the question:
What industrial applications of electricity do you know?
9. Answer the question:
What do you think is the most important technological breakthrough in history?
10. Answer the question:
How has technology impacted our work, studies and career?
11. Answer the question:
Is there a tech product you want these days? What is it? How will it make your life better?
12. Answer the question:
What do you think is the biggest advantage of modern technology?
13. Answer the question:
How have technological advances affected communication/ how we receive news/ the medical field/ education?
14. Answer the question:
How have widely used electronic drawing tools with extended databases and wide access to information via computers change the job of an architect?
15. Answer the question:
How do you feel about artificial intelligence like Siri or Alexa?
16. Look through the text and answer the question:What are smart recycling systems?

Waste Management and Green Technology: Paving the Way for a Sustainable Future

The rapid growth of industrialization and consumerism has led to an alarming increase in waste generation, posing severe threats to the environment and human health. However, advancements in green technology are revolutionizing waste management, offering innovative solutions to reduce, reuse, and recycle waste efficiently.

The Global Waste Crisis

Every year, the world generates over 2 billion tons of municipal solid waste, with plastic, electronic waste (e-waste), and food waste being major contributors. Landfills and incineration—traditional waste disposal methods—release harmful greenhouse gases (like methane and CO_2) and toxic chemicals, accelerating climate change and pollution.

Green Technology Solutions for Waste Management

1. Smart Recycling Systems
   - AI-powered waste sorting robots (e.g., ZenRobotics) use machine learning to separate recyclables with high precision.
   - Blockchain-based tracking ensures transparent recycling processes, reducing illegal dumping.
2. Waste-to-Energy (WtE) Technologies
   - Biogas plants convert organic waste into renewable energy.
   - Plasma gasification breaks down non-recyclable waste into clean syngas for electricity.
3. Circular Economy & Sustainable Materials
   - Companies like TerraCycle upcycle hard-to-recycle waste into new products.
   - Biodegradable packaging (e.g., Mushroom-based materials, seaweed plastics) replaces single-use plastics.
4. E-Waste Innovations
   - Urban mining extracts precious metals (gold, lithium) from discarded electronics.
   - Modular smartphones (e.g., Fairphone) reduce e-waste by enabling easy repairs.
5. Zero-Waste Initiatives
   - Cities like San Francisco aim for zero waste through strict recycling/composting laws.
   - Edible cutlery and reusable container programs cut down disposable waste.

Challenges and the Way Forward

Despite progress, challenges like high costs, lack of infrastructure, and low public awareness persist. Governments and corporations must invest in:

- Extended Producer Responsibility (EPR) policies.
- Public education campaigns on waste segregation.
- Subsidies for green tech startups.

Green technology is transforming waste from an environmental burden into a resource. By adopting sustainable practices and supporting innovations, we can move toward a zero-waste future.

17. Look through the text and answer the question: What ultra-efficient electronics have advances in semiconductor technology led to?

Smart Homes and Low-Power Devices: Green Technology for Sustainable Living

As energy demands rise and environmental concerns grow, smart homes and low-power devices are emerging as key solutions for sustainable living. By integrating energy-efficient technologies with automation, modern households can significantly reduce electricity consumption, minimize waste, and lower carbon footprints.

Smart homes use IoT (Internet of Things) devices to optimize energy usage by:

- Automated lighting systems (e.g., motion sensors, smart bulbs like Philips Hue) that turn off when

not needed.
• Smart thermostats (e.g., Nest, Ecobee) that learn user habits and adjust heating/cooling to save energy.

• Energy monitoring systems that track real-time electricity usage and suggest optimizations.
Low-Power Devices: Reducing Energy Waste
Advances in semiconductor technology have led to ultra-efficient electronics:
• Low-power processors (e.g., ARM Cortex-M for IoT) that extend battery life in smart sensors.
• Energy Star-certified appliances (refrigerators, washing machines) that consume 10–50% less power.
• Solar-powered smart gadgets (e.g., smart blinds, outdoor cameras) that rely on renewable energy.

Green Technology in Smart Homes
1. Energy Storage & Renewable Integration
o Home battery systems (e.g., Tesla Powerwall) store solar energy for nighttime use.
o Smart inverters optimize solar panel output, feeding excess power back to the grid.
2. AI-Driven Energy Management
o AI algorithms predict usage patterns and shift high-power tasks (e.g., EV charging) to off-peak hours.
3. E-Waste Reduction
o Modular smart devices (e.g., Framework Laptop) allow easy upgrades, reducing electronic waste.
o Companies like Apple use recycled materials in products like HomePod.
Smart homes and low-power devices exemplify how green technology can merge sustainability with convenience. By adopting these solutions, households can cut energy bills, reduce reliance on fossil fuels, and contribute to a zero-waste future.

18. Look through the text and answer the question: How is the Internet of Things (IoT) revolutionizing environmental conservation?

IoT and Ecology: Smart Technologies for a Sustainable Planet

The Internet of Things (IoT) is revolutionizing environmental conservation by enabling real-time monitoring, data-driven decision-making, and automated resource management. From smart agriculture to pollution control, IoT bridges technology and ecology to foster a greener future.

How IoT Supports Ecological Sustainability

1. Environmental Monitoring
IoT sensors track critical ecological parameters:
• Air Quality: Networks of sensors (e.g., BreezoMeter) detect pollutants (CO_2, PM2.5) in cities.
• Water Conservation: Smart meters monitor river levels, detect leaks, and prevent waste (e.g., Sensus AquaSense).
• Wildlife Protection: GPS-enabled collars and acoustic sensors track endangered species and deter poaching.

2. Precision Agriculture
IoT optimizes farming while reducing environmental harm:
• Soil Sensors measure moisture/nutrient levels, minimizing water/fertilizer use.
• Drones & Smart Irrigation (e.g., CropX) analyze fields and deliver water only where needed.

3. Energy Efficiency & Smart Cities
• Smart Grids balance renewable energy (solar/wind) usage across neighborhoods.
• Waste Management: IoT-enabled bins (e.g., Enevo) signal collection trucks only when full, cutting fuel emissions.

4. Pollution & Disaster Control

- Forest Fire Detection: Early-warning systems (e.g., Dryad Networks) use solar-powered sensors to detect wildfires.
- Ocean Cleanup: Floating IoT drones (like The Ocean Cleanup's Interceptor) identify and collect plastic waste.

Future innovations may include:
- Biodegradable IoT sensors powered by plant energy.
- AI-powered ecology models predicting climate shifts.

IoT transforms passive ecological efforts into proactive, intelligent systems. By integrating smart technology with environmental science, we can combat climate change, conserve resources, and protect ecosystems more effectively.

19. Look through the text and answer the question: What is Advanced Waste-to-Energy (WtE)?

Modern Trends in Waste Management: Technology Driving Sustainability

As global waste generation continues to rise—exceeding 2.3 billion tons annually—innovative technologies and strategies are transforming waste management. From AI-powered sorting to circular economy models, modern trends focus on reducing landfill reliance, maximizing recycling, and converting waste into resources.

1. Smart Waste Collection & IoT
- Sensor-Enabled Bins: IoT-connected trash bins (e.g., Bigbelly) monitor fill levels and optimize collection routes, reducing fuel use.
- Blockchain Tracking: Ensures transparency in waste disposal and recycling chains (e.g., Plastic Bank's tokenized recycling).

2. AI and Robotics for Sorting
- AI-Powered Systems: Machines like AMP Robotics use computer vision to identify and sort recyclables with 99% accuracy.
- Waste-to-Resource Plants: Automated facilities separate metals, plastics, and organics for repurposing.

3. Circular Economy & Upcycling
- Brand-Led Initiatives: Companies like Adidas (sneakers from ocean plastic) and IKEA (furniture from recycled materials) close the loop on waste.
- Industrial Symbiosis: Factories exchange waste materials as raw inputs (e.g., using slag from steel production in cement).

4. Advanced Waste-to-Energy (WtE)
- Plasma Gasification: Converts non-recyclable waste into clean syngas for electricity.
- Biodegradable Waste Digesters: Systems like HomeBiogas turn food scraps into cooking fuel.

5. Zero-Waste Policies & Consumer Tech
- Bans on Single-Use Plastics: Over 100 countries have restricted plastic bags/straws.
- Apps for Waste Reduction: Platforms like Too Good To Go combat food waste by connecting users with surplus meals.

Challenges & Future Outlook
- High Costs: Scaling advanced tech (e.g., AI sorting) requires investment.
- Behavioral Change: Public education is critical to boost recycling participation.
- E-Waste Surge: Fast-growing electronic waste demands better recycling tech.

Modern waste management blends technology, policy, and consumer action to turn trash into treasure. By adopting these trends, societies can cut pollution, conserve resources, and move toward a zero-waste future.

20. Look through the text and answer the question: What are modern Trends in Ocean Cleaning

Modern Trends in Ocean Cleaning: Innovative Solutions for a Plastic-Free Future

The world's oceans face an unprecedented pollution crisis, with 11 million metric tons of plastic entering marine ecosystems annually. Modern technologies and initiatives are revolutionizing ocean cleaning, combining AI, robotics, and community-driven efforts to restore marine health.

1. Large-Scale Cleanup Systems

- The Ocean Cleanup Project: Deploys Interceptor Barriers in rivers (capturing 80% of riverine plastic) and System 03 (a massive floating barrier cleaning the Great Pacific Garbage Patch).
- Seabin Project: Floating trash collectors in marinas filter water 24/7, removing microplastics and oil.
- AI-Powered Drones (e.g., Clear Blue Sea): Autonomous vessels identify and collect floating debris using machine learning.
- Robotic Fish (e.g., WasteShark): Solar-powered aqua drones "eat" plastic waste in harbors.

3. Microplastic Filtration

- StormX (by The Great Bubble Barrier): Uses air bubbles to trap microplastics in rivers before they reach oceans.
- Filtering Washing Machines: New tech captures synthetic microfibers released during laundry cycles.

4. Bioremediation & Natural Solutions

- Plastic-Eating Enzymes (e.g., PETase): Genetically modified bacteria break down PET plastic in seawater.
- Oyster Reef Restoration: Natural filters improve water quality while stabilizing coastlines.

5. Policy and Community Action

- UN Plastic Treaty: A global agreement to end plastic pollution by 2024.
- #TeamSeas Initiative: Crowdfunded campaigns remove 1 pound of trash per $1 donated.

Challenges and Future Directions

- Scale: Current efforts address <1% of ocean plastic; scaling tech is critical.
- Funding: High costs for R&D and deployment require public-private partnerships.
- Deep-Sea Waste: Most tech targets surface waste, but deep-sea pollution remains unresolved.

From robotic cleaners to international policies, modern ocean cleaning trends offer hope for reversing marine pollution. Success depends on technology, global cooperation, and individual action—because saving the oceans starts on land.

21. Look through the text and answer the question: What is green economy?

Today, many people realize that it's not about the environment versus the economy, not a tradeoff between unemployment and pollution. It's not about picking one or the other.

We cannot choose between the environment and the economy. We need both.

This realization is at the heart of an emerging economic and environmental concept, often termed " the green economy."

It reflects a growing recognition that, on the one hand, the challenge of sustainability rests almost entirely in getting the economy right. Putting a price on carbon, valuing natural capital and ending perverse subsidies, among other things, are all vital to meaningful environmental reform.

And, on the other hand, if we wish to create a sustainable economy, we must pay more attention to the environment. Against a backdrop of climate change, resource scarcity, the massive loss of biodiversity and a variety of other environmental issues, business as usual is increasingly risky.

The green economy was initially driven by an environmental imperative, the recognition that climate change and ecological degradation threaten our future prosperity. But today, it is driven equally by opportunity, the recognition that a green economy opens up new possibilities for jobs and growth. As a recent report from the U.N. put it, “the greening of economies is not generally a drag on growth but rather a new engine of growth…a net generator of decent jobs…”

22. Look through the text and answer the question:Why is it important to plant and restore forests?

Deforestation.
Problem: Species-rich wild forests are being destroyed, especially in the tropics, often to make way for cattle ranching, soybean or palm oil plantations, or other agricultural monocultures.
Today, about 30 percent of the planet's land area is covered by forests - which is about half as much as before agriculture got started around 11,000 years ago. About 7.3 million hectares (18 million acres) of forest are destroyed each year, mostly in the tropics. Tropical forests used to cover about 15 percent of the planet's land area; they're now down to 6 or 7 percent. Much of this remainder has been degraded by logging or burning.
Not only do natural forests act as biodiversity reserves, they are also carbon sinks, keeping carbon out of the atmosphere and oceans.
Solutions: Conserve of what's left of natural forests, and restore degraded areas by replanting with native tree species. This requires strong governance - but many tropical countries are still developing, with increasing populations, uneven rule-of-law, and widespread cronyism and bribery when it comes to allocating land use.

23. Look through the text and answer the question:Why do we call Russia the largest county in the world?

Located in the north, west and east latitudes of the Northern Hemisphere, most of Russia is much closer to the North Pole than to the equator. Individual country comparisons are of little value in gauging Russia's enormous size and diversity. The country's 17.1 million square kilometers include one-eighth of the Earth's inhabited land area. Its European portion, which occupies a substantial part of continental Europe, is home to most of Russia's industrial and agricultural activity and is where, roughly between the Dnieper River and the Ural Mountains, the Russian Empire took shape. Russia includes the entire northern portion of Asia.
From west to east, the country stretches from Kaliningrad to Ratmanov Island in the Bering Strait. This distance is roughly equivalent to the distance from Glasgow, Scotland, to Nome, Alaska. From north to south, the country ranges from the northern tip of the Russian Arctic islands at Franz Josef Land to the southern tip of the Republic of Dagestan on the Caspian Sea, spanning about 4,500 kilometres of extremely varied, often inhospitable terrain.
Extending for 57,792 kilometres, the Russian border is the world's longest.

24. Look through the text and answer the question: Why are there no skyscrapers in Washington, D.C?

One can hardly find a park, a square or an open area in Washington without a monument or a memorial. The most impressive and the best-known ones are the Lincoln Memorial and the Washington Monument. There are some important museums in Washington where you can see all kinds of things: famous paintings and sculptures, the dresses of President’s wives, the original of the Declaration of Independence, the largest blue diamond in the world, etc. There are 5 universities in Washington.
There are no skyscrapers in Washington, because they would hide the city's many monuments from view. No building in the city may be more than 40 meters tall. Thousands of tourists visit Washington every day. People from all parts of the United States come to see then- capital.
The Jefferson Memorial was built in memory of the third President of the USA, Thomas Jefferson, who was also the author of the Declaration of Independence. The memorial is surrounded by cherry-trees. The Lincoln Memorial devoted to the memory of the 16th President of the US, the author of the Emancipation Proclamation, which gave freedom to Negro slaves in America.

25. Look through the text and answer the question: What factors contribute to the air pollution problem?

Air pollution and climate change.

Problem: Overloading of the atmosphere and of ocean waters with carbon. Atmospheric CO_2 absorbs and re-emits infrared-wavelength radiation, leading to warmer air, soils, and ocean surface waters - which is good: The planet would be frozen solid without this.

Unfortunately, there's now too much carbon in the air. Burning of fossil fuels, deforestation for agriculture, and industrial activities have pushed up atmospheric CO_2 concentrations from 280 parts per million (ppm) 200 years ago, to about 400 ppm today. That's an unprecedented rise, in both size and speed. The result: climate disruption.

Carbon overloading is only one form of air pollution caused by burning coal, oil, gas and wood. The World Health Organization recently estimated that one in nine deaths in 2012 were attributable to diseases caused by carcinogens and other poisons in polluted air.

Solutions: Replace fossil fuels with renewable energy. Reforestation. Reduce emissions from agriculture. Change industrial processes.

The good news is that clean energy is abundant - it just needs to be harvested. Many say a 100 percent renewable-energy future is feasible with existing technology now.

But the bad news is that even though renewable energy infrastructure - solar panels, wind turbines, energy storage and distribution systems - are already widespread, and getting cheaper and more efficient all the time, experts say we're not applying them quickly enough to prevent catastrophic climate disruption. Barriers in policy and finance remain to be overcome.

26. Look through the text and answer the question: What factors contribute to the pollution problem?

WE MUST PROTECT OUR ENVIRONMENT

Our country. Our environment. There are many big and small rivers, green forests, high mountains, lakes and seas in Russia. Our Earth is our home. I think people must take care of our Motherland. But the problem of pollution now is very important. There are some factors that increase the problem.

First of all, our plants and factories put their waste materials into water and atmosphere and pollute the environment. There are many kinds of transport in our cities. We can’t ignore their effect on the environment, that is why we must pay attention to the protection of our nature and the health of the people.

Radiation. Now it has become one of the main problems. It is not good for health of people. Many people died from radiation some years ago in Chernobol. It was a tragedy. The other problem is an earthquake. We know some terrible earthquakes in Chile, Haiti, Japan. Our scientists try to forecast earthquakes, then we can protect ourselves from them.

27. Look through the text and answer the question: What are key features of the green economy?

KEY FEATURES OF THE GREEN ECONOMY

Simply put, a green economy is low-carbon, resource efficient, and socially inclusive. Some of it's key features include:

Abundant opportunities for good green jobs that pay a living wage.

A price on carbon, either through a cap-and-trade program or an economy-wide tax on carbon.

More efficient use of energy and other resources. For example, huge economic and environmental gains could be made if we had more energy efficient buildings and transportation.

Greater use of renewable resources, like wind and solar, instead of non-renewable resources, such as coal and oil.

Greener manufacturing which is resource efficient and doesn’t use toxic chemicals

Proper value assigned to natural environments and ecosystems, in recognition of all the services the environment provides such as carbon sequestration, flood protection, and waste water treatment. A robust recycling and reuse industry, with minimal waste sent to landfill.

28. Look through the text and answer the question: What eco-friendly materials are used nowadays?

Green Technology and Sustainable Mobile Phones

The rapid growth of the smartphone industry has raised environmental concerns, from excessive e-waste to high carbon emissions. However, modern green technology is transforming mobile phones into eco-friendly devices, promoting sustainability without compromising performance.

Eco-Friendly Materials

Many manufacturers now use recycled or biodegradable materials. For example, companies like Fairphone design modular phones with responsibly sourced metals and plastics, reducing environmental impact. Others, like Apple, have committed to using 100% recycled rare earth elements in their iPhones.

Energy Efficiency and Renewable Power

Smartphones now feature energy-efficient processors (e.g., ARM's big.LITTLE architecture) and low-power displays (OLED/LTPO). Additionally, companies are shifting to renewable energy for production. Samsung and Google have pledged to power data centers and factories with 100% renewable energy.

Longevity and Repairability

To combat e-waste, brands are extending device lifespans through software updates (e.g., 7+ years for Google Pixel) and modular designs. The Right to Repair movement has also pushed companies like Microsoft and Apple to provide repair guides and spare parts.

E-Waste Recycling Programs

Many tech giants now offer trade-in and recycling programs, recovering valuable materials from old devices. For instance, Apple's recycling robot, Daisy, disassembles iPhones to reclaim metals, reducing mining demand.

Solar and Kinetic Charging

Innovations like solar-powered cases (e.g., Solartab) and kinetic energy chargers are emerging, reducing reliance on grid electricity. Researchers are even exploring biodegradable batteries to minimize toxic waste.

Green technology is reshaping the mobile industry, making smartphones more sustainable. As consumers, supporting eco-conscious brands and recycling old devices can drive further progress toward a greener future.

29. Look through the text and answer the question: What are modern Trends in Air Cleaning?

Modern Trends in Air Cleaning: Innovative Solutions for Healthier Air

Air pollution remains a critical global challenge, contributing to 7 million premature deaths annually (WHO). As urbanization and industrialization intensify, cutting-edge technologies and sustainable strategies are emerging to purify the air we breathe. From smart filtration to carbon capture, modern air-cleaning innovations combine AI, biotechnology, and renewable energy to combat pollution.

- AI-Powered Purifiers: Devices like Dyson Pure Cool use sensors and machine learning to detect and neutralize pollutants (PM2.5, VOCs) in real time.
- HVAC Integration: Buildings now embed MERV-13 filters and UV-C light to sterilize airflow (e.g., Carrier's Healthy Buildings Program).

2. Carbon Capture and Utilization (CCU)

- Direct Air Capture (DAC): Plants like Climeworks' Orca in Iceland absorb CO_2 from the air and store it underground or repurpose it for fuel.

- Algae Bioreactors: Companies like Hypergiant use algae to convert CO_2 into oxygen and biomass.

3. Urban Green Infrastructure

- Smog-Eating Buildings: Coatings with titanium dioxide (e.g., Manuel Gea González Hospital, Mexico) break down pollutants when exposed to sunlight.
- Vertical Forests: Projects like Bosco Verticale (Milan) integrate thousands of plants into skyscrapers to absorb CO_2 and particulate matter.

4. Low-Emission Transportation

- EV Adoption: Electric vehicles and solar-powered charging stations reduce urban NOx and particulate emissions.
- Hydrogen-Powered Public Transit: Cities like Copenhagen deploy hydrogen buses emitting only water vapor.

5. Community and Policy Initiatives

- Air Quality Apps: Platforms like Plume Labs provide real-time pollution maps and personalized health advice.
- Global Bans on Combustion Engines: Countries like Norway and the UK plan to phase out gas/diesel cars by 2030.

Challenges and Future Innovations

- Energy Use: DAC and large-scale filters require renewable energy to stay sustainable.
- Equity: Low-income areas often lack access to advanced air-cleaning tech.
- Indoor Pollution: Rising focus on nanofiber filters and houseplants (e.g., peace lilies) to combat toxins at home.

Next-Gen Solutions:

- Nanotech Filters: Graphene-based membranes to trap ultrafine particles.
- Bioengineered Plants: Modified ivy (e.g., Neo P1) that absorbs 30% more pollutants.

From smart cities to bioreactors, modern air-cleaning trends are merging technology, nature, and policy to clear the skies. While challenges remain, these innovations offer a roadmap for a future where clean air is a universal right—not a privilege.

30. Look through the text and answer the question: What do you know about such climate phenomena as El Niño and La Niña?

El Niño and La Niña: The Climate Phenomena Shaping Our Planet

El Niño and La Niña are opposite phases of the El Niño-Southern Oscillation (ENSO) cycle - a natural climate pattern that occurs across the tropical Pacific Ocean every 2-7 years. These phenomena significantly influence global weather patterns, affecting temperature, precipitation, and extreme weather events worldwide.

1. El Niño (The Warm Phase)

- Occurs when trade winds weaken, allowing warm water to spread eastward
- Sea surface temperatures rise by 1-3°C in central/eastern Pacific
- Typically lasts 9-12 months
- More frequent and intense due to climate change (occurring every 2-3 years recently)

2. La Niña (The Cool Phase)

- Happens when trade winds strengthen, pushing warm water westward
- Cooler-than-average sea surface temperatures develop
- Often lasts 1-3 years
- Can occur consecutively ("double-dip" or "triple-dip" events)

Global Climate Impacts

El Niño Effects:

- Droughts: Southeast Asia, Australia, Southern Africa
- Floods: Western South America, Southern U.S.
- Warmer global temperatures (boosts climate change effects)
- Reduced Atlantic hurricane activity

La Niña Effects:

- Increased rainfall: Southeast Asia, Northern Australia
- Drought conditions: Southern U.S., East Africa
- More active Atlantic hurricane seasons
- Cooler global temperatures (temporarily masks climate change)

Economic and Ecological Consequences

1. Agriculture: Crop failures or surpluses depending on region
2. Fisheries: Collapse of anchovy fisheries during El Niño
3. Health: Spread of diseases (malaria, dengue) due to changing rainfall
4. Energy: Hydropower production fluctuations

Current Status and Future Outlook

- The 2023-2024 El Niño was one of strongest on record
- Climate models predict increasing frequency/intensity of both phenomena
- Scientists are improving prediction systems (up to 6-9 months in advance)
- Understanding ENSO is crucial for climate adaptation strategies

While natural phenomena, El Niño and La Niña are being modified by human-caused climate change. Their growing intensity underscores the need for better prediction systems and climate-resilient infrastructure worldwide.

31. Translate the text

The flag of the UK is known as the Union Jack. It has its history. It all began in 1603 when Scotland was joined to England and Wales. The flag is made up of 3 crosses. The upright cross is the Cross of St. Jeorge the patron saint of England. The white diagonal cross is the cross of St. Andrew, the patron saint of Scotland. The red diagonal cross is the cross is the cross of St. Patrick, the patron saint of Ireland. All of them are on the blue background. The national anthem is . The national currency is pound. Geographically the island of Great Britain is subdivided into 2 main regions: Lowland Britain and Highland Britain. Lowland Britain comprises southern and eastern England. Highland Britain consists of Scotland, most of Wales, the Pennines (or the Pennine Chain) and the Lake District. The highest mountain top is Ben Nevis in Scotland. The chief rivers of Great Britain are: the Severn, separating England and Wales, the Thames (the longest and the deepest one). The swiftest flowing river is the Spray. Also the Tweed is famous (the woolen fabric is made here). Every country in the UK has its own national emblem. The red rose is the national emblem of England, the thistle is the national emblem of Scotland, the daffodils and the leek are the emblems of Wales, and the shamrock (a kind of clover) is the emblem of Ireland.

32. Translate the text

The London Eye, or the Millennium Wheel, is a cantilevered observation wheel on the South Bank of the River Thames in London. It is Europe's tallest cantilevered observation wheel, and is the most popular paid tourist attraction in the United Kingdom with over 3 million visitors annually. It has made many appearances in popular culture.

The structure is 135 meters (443 ft) tall and the wheel has a diameter of 120 meters (394 ft). When it opened to the public in 2000 it was the world's tallest Ferris wheel. Its height was surpassed by the 167 meters (548 ft) High Roller (Las Vegas) in 2014. Supported by an A-frame on one side only, unlike the taller Nanchang and Singapore wheels, the Eye is described by its operators as "the world's tallest cantilevered observation wheel".

The London Eye used to offer the highest public viewing point in London until it was superseded by the 245-metre-high (804 ft) observation deck on the 72nd floor of The Shard, which opened to the public on 1 February 2013.

In March 2020, the London Eye celebrated its 20th birthday by turning several of its pods into experiences themed around London, in partnership with its sponsor lastminute.com. The special experiences included a pub in a capsule, a west end theatre pod and a garden party with flower arrangements to represent the eight London Royal parks.

33. Translate the text

Siberia, in the north of Russia, is one of the coldest, harshest places on earth. Famed for its inhospitable climate, it is also mineral-wealthy and unexploited – a true frontier region. Although it has attracted mining companies for decades, the challenging landscape and conditions have meant they have only just begun to scratch the surface of the area’s potential.

This could now be changing; as climate change leads to warmer temperatures, ice and permafrost are melting and potentially easing the mining process. The mining sector is the second biggest contributor to GDP in Russia, and is expected to continue to play an important role in its economy.

Mining in Siberia grew exponentially during the 20th century, as successive governments and leaders

sought to take advantage of it. “The Siberian region is rich in minerals including coal, gold, diamond and iron ore,” says Globaldata analyst Alok Shukla. “Coal is largely extracted from Kemerovo, Krasnoyarsk Krai, Sakha (Yakutia), Republic of Khakassia, and Irkutsk Oblast. Gold originates mainly from Krasnoyarsk Krai and Irkutsk Oblast.”

Russia is responsible for 7% of global aluminium production, and 95% of this takes place in Siberia. It is home to Russia’s largest coal mine, the Arshanovsky pit in the Khakassia Republic which opened in 2015. When at full capacity it is expected to produce 10 million tonnes of coal, and there are already plans to expand it further. Siberia and the Far East also hold 84% of Russia’s known gold reserves.

But much remains unexplored or inaccessible in Siberia still, leaving the true mineral wealth of the region uncertain. In 2016, a mineral was discovered in Siberia unlike any ever found naturally occurring on earth. Instead it appears to be similar to lab-grown metal-organic frameworks. Such discoveries highlight the potential of a region so long hidden under ice and thick forests.

34. Translate the text

In recent years, climate change has been a much talked about issue, with many debates over its possible impact on the world, and some even going so far as to question its very existence. However, with the undeniable increase in greenhouse emissions on Earth, there can be no doubt that the earth is becoming warmer.

So what exactly does this mean for the future of our planet? In chilly places like the UK, we may think to ourselves: ‘Finally, warmer weather!’ But global warming will in fact cause extreme weather conditions, meaning that our winters would be even colder than they are now. More than that, warmer temperatures will lead to the melting of ice in the north and south poles, which in turn will lead to rising sea levels across the globe. This is particularly troubling for low coastal regions such as Florida in the USA which would be among the first to be flooded, along with many islands around the world, including the United Kingdom. In 1000 years or so, all these places and more will be submerged underwater.

So where will be able to live? Unless we can find a way to evolve into mermaids and mermen, which doesn’t look promising, the only solution is to move elsewhere. There will be little choice left once a large proportion of the land is lost to the sea, and other remaining places will be so hot that they will be absolutely impossible to survive in. It is possible, then, that the once frozen poles of the Arctic and Antarctica will be suitable enough to live in, having melted its ice and warmed up.

It’s a scary thought to imagine such devastation on Earth. Perhaps if people start to realise how their actions now can have such a profound impact on future generations, they will change their attitude and start to think more about caring for the environment, in order to save it.

35. Translate the text

The flag of the UK is known as the Union Jack. It has its history. It all began in 1603 when Scotland was joined to England and Wales. The flag is made up of 3 crosses. The upright cross is the Cross of St. Jeorge the patron saint of England. The white diagonal cross is the cross of St. Andrew, the patron saint of Scotland. The red diagonal cross is the cross is the cross of St. Patrick, the patron saint of Ireland. All of them are on the blue background. The national anthem is . The national currency is pound. Geographically the island of Great Britain is subdivided into 2 main regions: Lowland Britain and Highland Britain. Lowland Britain comprises southern and eastern England. Highland Britain consists of Scotland, most of Wales, the Pennines (or the Pennine Chain) and the Lake District. The highest mountain top is Ben Nevis in Scotland. The chief rivers of Great Britain are: the Severn, separating England and Wales, the Thames (the longest and the deepest one). The swiftest flowing river is the Spray. Also the Tweed is famous (the woolen fabric is made here). Every country in the UK has its own national emblem. The red rose is the national emblem of England, the thistle is the national emblem of Scotland, the daffodils and the leek are the emblems of Wales, and the shamrock (a kind of clover) is the emblem of Ireland.

36. Translate the text

Scotland is a country in the north of Great Britain. It is a part of the United Kingdom. Scotland is divided into three natural regions: the Southern Uplands, the Central Lowlands and the Highlands and islands. A lot of places in Scotland are a natural paradise, still untouched by man.

The capital of Scotland is Edinburgh, well known for its castle. Glasgow is the industrial capital of

Scotland. It is the third largest city in Great Britain. The typical products of Scotland are timber, whisky, salmon. Golf is the Scottish natural sport and it seems to have originated in this country.
Scotland is also the land of myths and mysteries; every castle has its ghost. Glamis Castle is said to have nine of them. And of course everyone knows about the Loch Ness Monster. 'Nessie" is said to be about six meters long, with a long, thin neck. The first report of the monster in Loch Ness was in 565 A.D. Since 1934, thousands of people claimed to they had seen the monster. Scientists have investigated the Loch and taken pictures but no scientific explanation of the mystery has been given.
Scotland is the north part of Great Britain. Five million people live in Scotland. Edinburgh is the capital of Scotland.

37. Translate the text

The United Kingdom is a constitutional monarchy. It has a monarch - a King or a Queen. The present British monarch is Queen Elizabeth the Second. She become Queen in 1952. The monarch has little power and can reign with the support of Parliament. British Parliament is the legislative body at the country. It consists of two Houses. The House of Commons and House of Lords. Parliament and the monarch have different roles in the Government of the country. In reality, the House of Commons has truth power. It introduces new bills. Then they go to the House of Lords for approval. The functions of the Queen are: to open the sessions of the Parliament, to head the commonwealth, to be Commander-in-Chief, to declare the war, to make peace. The house of commons is made up of 650 elected knows of members of parliament. The party which has the majority of suits in the Government and its leader usually becomes prime minister. The prime minister forms his or her Cabinet Ministers. The chairman of the House of Commons is the Speaker. The chairman of the House of Lords is the Lord Chancellor. He sits on a special place, which is called the woolsack. It means that wool made England rich. The members of the House of Lords are not elected, there are live peers. There are several political parties in Great Britain. They are the Conservative, the Liberal, the Labor, the Social Democratic and the Communist parties. Prime minister of the country Boris Johnson is leader of the Conservative Party.

38. Translate the text

The Foundation Period of London: Birth of a Global City (43 AD - 410 AD)
London's origins trace back to a strategic decision by Roman invaders in 43 AD, when Emperor Claudius established Londinium as a key military and trading settlement. This foundational period shaped the city's enduring character through several critical developments:
Roman Establishment (43-60 AD)
- Founded as a river port at the narrowest Thames crossing point
- Initial settlement covered 1.4 km² (modern City of London area)
- Strategic location connected roads to major Roman British towns

Boudican Revolt & Rebuilding (60-120 AD)
- Destroyed in 60 AD by Iceni tribe led by Queen Boudica (королева Боадицея), a queen of the ancient British Iceni tribe (племя иценов), who led a failed uprising against the conquering forces of the Roman Empire in AD 60 or 61.
- Reconstructed with improved stone defenses and grid-pattern streets
- Built first London Bridge (wooden, near modern bridge location)

Peak Roman Development (2nd-4th Century)
- Became provincial capital of Britannia by 100 AD
- Constructed major infrastructure:
  - Basilica (largest north of Alps)
  - Amphitheater (discovered under Guildhall)
  - 3 km defensive wall (sections still visible)
- Reached population of 30,000-45,000

Key Foundations for Future Growth
- Established as England's first international trade hub
- Created enduring street patterns still visible today
- Built original Thames embankments
- Developed as administrative center (traits continuing today)

Decline and Transition (5th Century)

- Roman withdrawal around 410 AD led to urban decline
- Settlement continued at reduced scale (Saxon Lundenwic)
- Original walls maintained through Middle Ages

The Roman foundation established London's lasting advantages: strategic location, commercial orientation, and administrative importance - qualities that would eventually propel it to global prominence.

39. Translate the text

Located in the north, west and east latitudes of the Northern Hemisphere, most of Russia is much closer to the North Pole than to the equator. Individual country comparisons are of little value in gauging Russia's enormous size and diversity. The country's 17.1 million square kilometers include one-eighth of the Earth's inhabited land area. Its European portion, which occupies a substantial part of continental Europe, is home to most of Russia's industrial and agricultural activity and is where, roughly between the Dnieper River and the Ural Mountains, the Russian Empire took shape. Russia includes the entire northern portion of Asia.

From west to east, the country stretches from Kaliningrad to Ratmanov Island in the Bering Strait. This distance is roughly equivalent to the distance from Glasgow, Scotland, to Nome, Alaska. From north to south, the country ranges from the northern tip of the Russian Arctic islands at Franz Josef Land to the southern tip of the Republic of Dagestan on the Caspian Sea, spanning about 4,500 kilometres of extremely varied, often inhospitable terrain.

Extending for 57,792 kilometres, the Russian border is the world's longest.

40. Translate the text

The United Kingdom is a constitutional monarchy. It has a monarch - a King or a Queen. The present British monarch is Queen Elizabeth the Second. She become Queen in 1952. The monarch has little power and can reign with the support of Parliament. British Parliament is the legislative body at the country. It consists of two Houses. The House of Commons and House of Lords. Parliament and the monarch have different roles in the Government of the country. In reality, the House of Commons has truth power. It introduces new bills. Then they go to the House of Lords for approval. The functions of the Queen are: to open the sessions of the Parliament, to head the commonwealth, to be Commander-in-Chief, to declare the war, to make peace. The house of commons is made up of 650 elected knows of members of parliament. The party which has the majority of suits in the Government and its leader usually becomes prime minister. The prime minister forms his or her Cabinet Ministers. The chairman of the House of Commons is the Speaker. The chairman of the House of Lords is the Lord Chancellor. He sits on a special place, which is called the woolsack. It means that wool made England rich. The members of the House of Lords are not elected, there are live peers. There are several political parties in Great Britain. They are the Conservative, the Liberal, the Labor, the Social Democratic and the Communist parties. Prime minister of the country Boris Johnson is leader of the Conservative Party.

41. Transate the text

Air pollution and climate change.

Problem: Overloading of the atmosphere and of ocean waters with carbon. Atmospheric CO_2 absorbs and re-emits infrared-wavelength radiation, leading to warmer air, soils, and ocean surface waters - which is good: The planet would be frozen solid without this.

Unfortunately, there's now too much carbon in the air. Burning of fossil fuels, deforestation for agriculture, and industrial activities have pushed up atmospheric CO_2 concentrations from 280 parts per million (ppm) 200 years ago, to about 400 ppm today. That's an unprecedented rise, in both size and speed. The result: climate disruption.

Carbon overloading is only one form of air pollution caused by burning coal, oil, gas and wood. The World Health Organization recently estimated that one in nine deaths in 2012 were attributable to diseases caused by carcinogens and other poisons in polluted air.

Solutions: Replace fossil fuels with renewable energy. Reforestation. Reduce emissions from agriculture. Change industrial processes.

The good news is that clean energy is abundant - it just needs to be harvested. Many say a 100 percent renewable-energy future is feasible with existing technology now.

But the bad news is that even though renewable energy infrastructure - solar panels, wind turbines,

energy storage and distribution systems - are already widespread, and getting cheaper and more efficient all the time, experts say we're not applying them quickly enough to prevent catastrophic climate disruption. Barriers in policy and finance remain to be overcome.

42. Translate the text

Inland Weather in Wales

The higher you get in Wales, the colder and wetter it gets. And as you move away from the coasts, Wales is quilted with river valleys separated by increasingly higher hills. The Brecon Beacons in south Wales, are softly rolling but enormous, windswept hills where winter temperatures below freezing and snowfalls are not uncommon. Further north, in the inland mountains of Snowdonia National Park, heavy precipitation can be extreme. One mountain peak, Crib Goch, may be the wettest place in the entire country with an astonishing 176 inches of rainfall annually.2 And on the highest peaks, it snows a great deal.

Mount Snowdon, at 3,560 feet and the highest U.K. mountain south of Scotland, can experience snowfall from October to May.

Snowfall at lower altitudes is rare, with an average of only 10 days a year with snow lying on the ground in the south and west Wales. On the other hand, the mountains of Snowdonia average 30 days a year with snowfall lying on the ground.

Autumn and Winter in Wales

In September, temperatures linger in the 60s but fall away rapidly through October and November into the high 40s. January and February are the coldest months with temperatures hovering around freezing or slightly above in higher areas and in the high 40s along the coast. Temperatures at night are usually 10 to as much as 15 degrees Fahrenheit colder depending on where you are in the country.

October through January are the wettest months. Rain tends to fall in short, sharp and very heavy showers. November is particularly squally with rain accompanied by gusty winds.

43. Translate the text

KEY FEATURES OF THE GREEN ECONOMY

Simply put, a green economy is low-carbon, resource efficient, and socially inclusive. Some of it's key features include:

Abundant opportunities for good green jobs that pay a living wage.

A price on carbon, either through a cap-and-trade program or an economy-wide tax on carbon.

More efficient use of energy and other resources. For example, huge economic and environmental gains could be made if we had more energy efficient buildings and transportation.

Greater use of renewable resources, like wind and solar, instead of non-renewable resources, such as coal and oil.

Greener manufacturing which is resource efficient and doesn’t use toxic chemicals

Proper value assigned to natural environments and ecosystems, in recognition of all the services the environment provides such as carbon sequestration, flood protection, and waste water treatment.

A robust recycling and reuse industry, with minimal waste sent to landfill.

44. Translate the text

The Shard, located in London, is one of the most iconic skyscrapers in the United Kingdom and a prominent feature of the city’s skyline. Completed in 2012, it was designed by the renowned architect Renzo Piano and stands at a height of 310 meters (1,016 feet), making it the tallest building in the UK and the fifth tallest in Europe. The Shard's unique design resembles a shard of glass, with its tapering form and reflective façade that changes appearance with the weather and time of day.

The construction of The Shard began in 2009 and was part of a larger redevelopment project for London Bridge Station and its surrounding area. The building consists of 95 floors, with a mix of office space, restaurants, a hotel, and residential apartments. The top floors house an observation deck known as "The View from The Shard," which offers breathtaking panoramic views of London and beyond, attracting millions of visitors each year.

One of the most notable features of The Shard is its innovative use of glass. The façade is made up of 11,000 glass panels that create a shimmering effect, allowing natural light to flood the interior spaces while providing stunning views for those inside. The building is also designed with sustainability in mind; it incorporates energy-efficient systems and has achieved a BREEAM rating for its

environmental performance.
The Shard has become a symbol of modern London and is often featured in films, television shows, and promotional materials for the city. Its presence has also spurred further development in the surrounding area, contributing to London's status as a global financial hub.
In addition to its architectural significance, The Shard has played host to various cultural events and exhibitions since its opening. It has become a popular venue for corporate events, weddings, and private functions due to its stunning views and luxurious amenities.
Overall, The Shard represents not only an architectural achievement but also a testament to London's ongoing evolution as a vibrant metropolis. Its striking design and multifunctional use make it an essential part of the city's landscape and an enduring attraction for both locals and tourists alike.

45. Translate the text

The UK Climate: Challenges and Opportunities
The climate of the United Kingdom is characterized by its temperate maritime conditions, which result in relatively mild temperatures, moderate rainfall, and a lack of extreme weather events compared to many other regions. However, the UK is not immune to the impacts of climate change, which pose significant challenges to its environment, economy, and society. Understanding the current climate dynamics and the implications of climate change is crucial for developing effective strategies for mitigation and adaptation.
The UK experiences four distinct seasons, with average temperatures ranging from about 1°C (34°F) in winter to 20°C (68°F) in summer. Rainfall is distributed fairly evenly throughout the year, with some regions, particularly in the west and north, receiving significantly more precipitation than others. The climate varies across the country:
Southern England: Generally warmer and drier, with milder winters.
Northern England and Scotland: Cooler temperatures and higher rainfall.
Coastal Areas: Influenced by maritime conditions, leading to milder winters but also increased vulnerability to storms and flooding.
The effects of climate change are becoming increasingly evident in the UK:
Rising Temperatures: Average temperatures have increased by approximately 1°C since the late 19th century. This trend is expected to continue, leading to hotter summers and milder winters.
Increased Rainfall and Flooding: While overall rainfall may not significantly increase, extreme weather events are becoming more frequent. Heavy rainfall can lead to flooding, particularly in urban areas with inadequate drainage systems.
Sea Level Rise: Coastal areas are at risk due to rising sea levels caused by melting ice caps and thermal expansion of seawater. This threatens communities, infrastructure, and ecosystems along the coast.
Biodiversity Loss: Changing climates can disrupt ecosystems and habitats, leading to shifts in species distribution and increased risks for native wildlife.
Climate Adaptation Strategies: The government is developing strategies to adapt to climate impacts through improved infrastructure resilience, flood defenses, and sustainable land management practices.

3 семестр, Экзамен
Контролируемые ИДК: УК-4.1 УК-4.2 УК-4.3 УК-4.4
Вопросы/Задания:

1. Answer the question:

Can you give a definition of an architectural design?

2. Answer the question:

What is the main objective of an architectural design?

3. Answer the question:

What concept are the most important design principles based on?

4. Answer the question:

What factors influence an architectural design? In what way?

5. Answer the question:

What are the most important architectural styles can you name? Which is your preferable?

6. Answer the question:

What is the role of a design project purpose in the design process?

7. Answer the question:

How have widely used electronic drawing tools with extended databases and wide access to information via computers changed the job of an architect?

8. Look through the text and say what it is about. Give its brief contents.

The work of architects and its effects should, therefore, remain at a higher level than competition can create. For this reason, architects need to improve their design skills constantly, while at the same time gaining experience and using the knowledge of other professionals who work in the design branch. On the other hand, taking part in a complex market game and the development of architectural projects can bring us great satisfaction, which comes from the possibility of constant observation of self-development, verification of professional qualifications, and strengthening our market position. A stronger market position is, in fact, an important factor contributing to professional success in terms of its essential context as well as income. To undertake any design task, an architect should have a specified design aim and design thinking ability. Therefore, the first chapter of this textbook provides an introduction to a design process with a particular focus on its purpose. This chapter also includes a description of a perception of a design by representatives of the building branch who have a direct or indirect relationship with the design process: collaborators with architects, including engineers and other professionals, and clients. It should be emphasized that architectural design is a professional service that architects provide to their customers. Apart from in extraordinary cases, an architect works for a certain client, who can be the main investor, a future building user or may play a different role. This client hires a professional to carry out a specific design task, which (s)he cannot solve her/himself. Thus, for this reason (s)he hires the architect.

9. Look through the text and say what it is about. Give its brief contents.

For the successful realization of a design process we need a well-educated architect who has a broad knowledge, based on a solid foundation. Therefore, the education of young architects should be, from the beginning of their studies, carried out in a carefully planned manner. An important element of a student's education is the conscious management of the teaching process, which enables realization of what is most important in this profession, and an understanding that, in reality, essentially the studies are quite simple and pleasant. This architectural design textbook is a didactical publication in the field of architecture, which enables students and other people interested in this subject to understand the basic principles of the profession in a simple – according to the author's intention – way. The other purpose of the textbook is to introduce students to a market-oriented way of thinking, a standard approach for the architecture profession.

The addressees of Simple Introduction to Architecture are both early-years students from architectural faculties and people who have not previously been close to the work of architects but want to learn more about at least some aspects of this interesting profession. I would like to emphasize that the source of the tips and comments in this textbook is the knowledge and design experience of the author. This means that the recipients of information included in this book are not obliged to accept uncritically all my opinions and guidance. My idea is that this textbook should only be an aid to finding one's own professional way in the broadly understood field of architecture.

10. Look through the text and say what it is about. Give its brief contents.

Everything that does not occur by accident begins from an idea. A concept comes to our mind, and we want to realize it. At first, we don't know how to do it. Before we do anything, we guess, more or less, why we want to do it. And, in the end, achieving the main aim is the prize for our effort. The first idea determines the general aim of the activity, for example: "I will build a house, in which I am going to live" or "I will build a factory." In fact, it is not even a way of thinking. It is only a verbal formulation of our dreams. After this verbal formulation we take the next step, which is specifying and detailing the main aim of our actions. And at this point we stop and reflect: "Yes, I am going to build a house or factory, but how am I going to make it?" Each of us deals, to a greater or lesser extent, with creating a new reality in its various aspects. However, only some of us learn how to create a space in a professional way, because for this action both proper knowledge and a developed consciousness of creation are necessary. That's why the space is created by professional designers, including architects, and the whole creative process of making decisions aimed at satisfying human needs we call "design." Simply, design is the art of making decisions and their logic is defended by the use of proper arguments.

Architects may design not only houses but also landscapes, apartments, clothes, cars, planes, machines and tools, graphics, promotional campaigns, and even law. Thanks to design we know how to build a plane that doesn't crash during its first flight, a house that doesn't collapse, and an apartment in which we may live, how to design a poster that attracts people, how to plant trees that don't obstruct the view, and how to create an aesthetic space.

11. Look through the text and say what it is about. Give its brief contents.

Architects may design not only houses but also landscapes, apartments, clothes, cars, planes, machines and tools, graphics, promotional campaigns, and even law. Thanks to design we know how to build a plane that doesn't crash during its first flight, a house that doesn't collapse, and an apartment in which we may live, how to design a poster that attracts people, how to plant trees that don't obstruct the view, and how to create an aesthetic space. Above all, we are especially interested in spatial design, e.g. houses and their interiors (corridors, halls, apartments, etc.), other buildings and nonbuilding structures (bridges, advertisement pillars, and so on), and landscapes including monuments, benches, trees, and other plants. Designing a space, in contrast to clothes, cars, planes, machines and tools, graphics, promotional campaigns and law, we call architectural design. For example, urban planning involves the design of larger areas' and, therefore, remains on another, more general level of spatial precision in comparison to architecture. At this point it should be underlined that decisions in architectural design, understood exactly as a decision-making process aimed at complete architectural project preparation, on the basis of which we may build a certain object, refer to in particular:

• the selection of people to perform specific creative activities and organization of work,
• the choice of specific design methods,
• the choice of preparation and presentation technique for an architectural design (including drawing tools and the material on which this design will be presented),
• determination of the place of work,
• agreement with a client on rules of cooperation, and a price for the architectural design,
• finally, methods of finding solutions to certain design problems. Typically, we make all architectural design decisions in fluctuating conditions of uncertainty about their correctness and after taking into consideration possible, sometimes difficult-to-predict, consequences.

12. Look through the text and say what it is about. Give its brief contents.

Architectural design stands out from other kinds of design because of a few important features. Firstly, it applies to a relatively large space, usually much bigger than in the case of any means of transport such as planes or cars. At the same time, an architect becomes responsible for the space that (s)he has created; of course, this responsibility also concerns her/his client.

Secondly, the realized effect of design work, e.g. a building, park etc., usually cannot move, or even be moved from one place to another. Thirdly, such a realization serves people for a relatively long time, much longer than the above-mentioned means of transport.

Fourthly and finally, to prepare an architectural design it is necessary to possess knowledge from a few branches beyond pure designing; for example, it is not possible to design a sports hall without knowledge of football, basketball or volleyball rules. It would also be difficult to design a garden without any knowledge about the needs of the trees and flowers we want to plant there. Similar problems would occur in any attempt to design a temple without knowledge of any of the rituals of that particular religion.

It should be emphasized that architectural design is a paid service for which we take proper payment. Architectural practice is a professional service that we, as architects, provide to our clients. Apart from in extraordinary situations, when we prepare an architectural design for ourselves – in this case we are both service providers and customers – we work for a specific client(s). A client may hire us to solve some design tasks that cannot be solved by herself/himself/ because of a lack of proper knowledge. That is why this client hires a professional architect.

13. Look through the text and say what it is about. Give its brief contents.

The result of the relationship between an architect and her/his client is an obligation to realize the will, and sometimes whims, of our customers. However, we should be aware of our responsibility for the effects of our design activity. This means that implementation of the architectural design on behalf of our client shouldn't lead to any aesthetic or functional disorder or compromise of the safety of the space designed by us. Moreover, our architectural design cannot disturb the society or, generally, the public interest, and all proper regulations in force must be respected. Therefore, it is important to explain to clients how some of their ideas might affect the space, either negatively or positively. This is an obligation and privilege for all architects. By the term "clients" we understand not only individuals but also institutions, local authorities of a municipality or parish, or even the state. For example, a client who wants to build a playing field may remain a member of the local authority of the municipality. In some cases, we may deal with institutional clients or firms, which may be represented by individuals. These people, officially authorized to represent their institutions, firms or local authorities, will pass us information about our clients' needs that is necessary to perform all the design works.

In conclusion, we can state that architectural design is the preparation of a plan for changing a space that is not our property. At the same time, we should remember that when starting work on any spatial change, we take responsibility for the result of our work. This responsibility we take both to our client and the society, because the profession of architect is an occupation that requires public trust.

14. Look through the text and say what it is about. Give its brief contents.

The main objective of architectural design is to realize an idea of aesthetic and functional alteration of a certain space. This idea, in accordance with its high degree of complexity, cannot be realized without a prepared plan. Architectural design consists precisely in preparing such a plan. To execute this plan, we need adequate knowledge of architecture, and at least basic knowledge of disciplines related to architecture, above all engineering, and branches about which knowledge is required in certain cases, for example the sports industry, trade, gastronomy and catering, private or public transport, etc. These branches are also represented by their own specialists. In particular, architects cooperate with specialists from various engineering branches.

In other words, the aim of the above-mentioned process is to prepare an architectural design, i.e. a "plan of activity," with the use of adequate design methodology. The result of this process is the architectural design, while the result of the whole investment process is a new building, the renovation of a building, or the development of a landscape. The more design methods we know, the greater our range of possibilities for creating the "plan of activity" will be, and thus the better the architectural designs we are able to prepare. Preparation of the architectural design is finished when the result of our work – the completed design – is already the basis for the commencement of a new building construction, its interior, or landscape.

It is necessary to mention that starting to construct any new house doesn't mean the completion of the architect's work in the investment process. (S)he also supervises the realization of the

architectural design throughout the construction process. During construction it is possible – or sometimes necessary – to make some changes in the design, including detailing of architectural and technical arrangements of chosen elements of the building.

15. Translate the text

The first actual use of the term "post-modernism" to define a stylistic period is unclear. Joseph Hudnut employed the term in an essay of 1945 when he wrote in defense of humanist design values and as a critique of the industrial houses of Walter Gropius. The historian Nikolaus Pevsner again adopted the term in 1966, but in a pejorative sense of antimodernism. The term was also bandied about in 1974 by "Robert Stern, Paul Goldberger, Arthur Drexler and other New Yorkers," according to Charles Jencks, but no paper trail seems to exist. And in 1975, Joseph Rykwert referred to the "post-Modern Movement style of Paul Rudolph." The tipping point, however, appears to have been the essay Charles Jencks published in the fall of 1975, "The Rise of Post Modern Architecture." From this moment forward, the term rather quickly insinuates itself into architectural currency. Since completing his doctoral work at London University in 1970, Jencks, a native of Baltimore, had remained attached to London circles. Between 1971 and 1974 he published no fewer than four books, perhaps the most important of which was his Modern Movements in Architecture (1973). Its timing, nevertheless, was somewhat premature in that it appeared a year or two before the decisive nature of the changes affecting architecture became fully evident. In another study of 1972, coauthored with Nathan Silver, Jencks championed the cause of adhocism in design, which he saw – similarly to Colin Rowe – as the logical alternative to the bulldozer and the planning policies of a central governmental authority. In still another essay written for Architectural Design in 1973, Jencks applauded "Ersatz in LA," in which he, with considerable irony, commended the semantic playfulness of Grauman's Chinese Theater in Hollywood, the Big Donut Drive In, and "Room 8," a plot in a pet cemetery prepared for a cat. He was at this time also establishing a home in Los Angeles. All of these themes are woven together in the essay "The Rise of Post Modern Architecture," a moniker he chose with some hesitation. As he explains his choice of words:

The only way to kill off the monster is to find a substitute beast to take its place and decidedly 'Post Modern' won't do the job. We need a new way of thinking, a new paradigm based on broad theory, which enjoys a large consensus. No such theory or consensus exists at the moment and it is in the nature of the case that such things take a long time to develop – perhaps another 20 years.

16. Translate the text

Another attempt to define postmodernism can be found in Graves's "The Case for Figurative Architecture," which appeared in the first major monograph of his work in 1982. Here Graves employed a literary analogy of standard language and poetic language to draw out the distinctions between modern and postmodern architecture. If modern architecture, with its machine metaphor, was largely concerned with technical and programmatic expression, rejecting any form of cultural representation in favor of abstract geometries, figurative architecture was an attempt to reexplore a poetic form that was, by contrast, grounded in both nature and anthropomorphic symbolism. This is true for architecture's elements (walls and windows) as well as for its spaces – as seen in the contrasting experiences of standing in the central hall of Palladio's Villa Rotunda versus the abstract dispersion of spaces one finds from anywhere within Mies van der Rohe's Barcelona Pavilion. Therefore postmodernism, for Graves, is nothing less than a necessary correction to modern architecture's lack of anthropomorphic content, one in which "we re-establish the thematic associations invented by our culture in order to fully allow the culture of architecture to represent the mythic and ritual aspirations of society." Against this definition, we might also consider the view of Charles Jencks in his follow-up study, What is Post-Modernism?, Jencks, still a strong advocate for the epochal importance of postmodernism, reiterated his earlier beliefs by defining it in 1984 as "double coding: the combination of Modern techniques with something else (usually traditional building) in order for architecture to communicate with the public and a concerned minority, usually other architects." By contrast, he defined modernism as the "universal, international style stemming from the facts of new constructional means, adequate to a new industrial society, and having as its goal the transformation of society, both in its taste and social make-up." Somewhat more evolved is

Jencks's contemporary assessment of the movement. He first isolated two main strands of postmodernism, represented by the work of James Stirling and Léon Krier – although the latter, he conceded, was in fact only a "borderline" postmodernist. Yet behind these strands lie six main traditions that compose the large palette of postmodernism: historicism, straight revivalism, neo-vernacular, ad hoc urbanism, metaphor metaphysical, and postmodern space. These multiple pedigrees allow Jencks to label a wide swath of architects as postmodernists – architects such as Peter Eisenman, Frank Gehry, Rem Koolhaas, Dimitri Porphyrios, Aldo van Eyck, Josef Kleihues, and Toyo Ito.

17. Translate the text

Post-Metabolism in Japan

Japan, like Germany, was a country slow to recover from the war. One early sign of Japan's architectural revival was Tokyo's hosting of the World Design Conference of 1960, a moment that was seized by a group of young Japanese architects who issued a small manifesto, Metabolism: The Proposals for New Urbanism. The founders of the movement – Kiyonori Kikutake, Noboru Kawazoe, Masato Otaka, Fumihiko Maki, and Kisho Kurokawa – were all members of what Kurokawa once referred to as the "fourth generation" of Japanese architects interacting with Western culture. The title of the manifesto was concisely defined: "Metabolism" is the name of the group, in which each member proposes future designs of our coming world through his concrete designs and illustrations. We regard human society as a vital process – a continuous development from atom to nebula. The reason why we use such a biological word, the metabolism, is that, we believe, design and technology should be a denotation of human vitality. Metabolism thrived in the 1960s – bred on the same technological fervor as its Western counterparts. Kenzo Tange, who had been active in the 1950s with CIAM, was the acknowledged mentor to the group. In 1959 he had been a visiting studio critic at MIT, where he and his students proposed two curvilinear, A-frame megastructures for Boston Harbor. Back in Japan in the following year, he began work on his proposal for an 18-kilometer extension of the city of Tokyo into the bay. Against the radial expansion of traditional cities, he proposed a linear structure or circulation chain operating on three levels, in which automobiles and monorails would have no barriers. Down the central spine ran a "civic core" consisting of office buildings crisscrossing horizontally between vertical service cores. Running perpendicular to it were a series of ribs supporting housing arrayed with traditional Japanese roofs.

The Metabolists followed within this scale of ambition. For the publication of 1960 Kikutake proposed his "Ocean City," consisting of 1250 plug-in, steel units (with a life-cycle of 50 years) to be attached to a concrete core. Kurokawa offered his three-dimensional "Helix City," inspired by the recent discovery of the chromosomal structure of DNA. Fumihiko Maki and Masato Otaka countered what they believed to be the failures of individual building design with their notion of "Group Form," a redevelopment scheme for the Shinjuku district in Tokyo, in which centers for shopping, offices, and entertainment were organized according their own forms and logic. The entertainment center, for instance, was conceived as a system of flowerlike shapes, in which a plaza formed a core surrounded by radiating petals of theaters, a concert hall, and opera.

18. Translate the text

British Renaissance

What Frei Otto did for the rebirth of postwar German theory – Ove Arup in many ways did for British engineering and architectural thought. He was born in England to Scandinavian parents, educated in Denmark and Germany, and returned to England to open his first engineering office in 1923. In the early 1930s he drew close to a circle of modernists that included Berthold Lubetkin, Maxwell Fry, and Walter Gropius, for whom he provided the structural design for the ramps of the Penguin Pool at the London Zoo (1933–1934) as well as the concrete flats of Highpoint I and II (1933–1934). After the war, in 1949, Ove reformed the Arup Partnership, but what gained him international prominence was his later involvement with the Sydney Opera House. The architectural competition was won in 1957 in a dramatic way by Jørn Utzon but with a design that was flawed in its execution. Design delays and cost overruns nearly scuttled the project until – in 1961 – Arup reconfigured the roof shells to one and the same radius. Although the attribution of this idea to Arup

remains contested, no one disputes Arup's role in bringing the intricate work to a successful conclusion after Utzon resigned from the project in 1966. When the Opera was completed in 1973, Arup's firm, now also enlarged with an architectural division, was a rival to SOM in both staff and influence.

Arup's global accomplishments also inform the work of Richard Rogers and Norman Foster. Rogers, the elder by two years, was born in Florence in 1933 to a British father and Italian mother, and the family later immigrated to England under the pressures of the unfolding war.

With the encouragement of his cousin Ernesto Rogers, Richard attended the Architectural Association in the mid-1950s and in 1961 he won a traveling fellowship to Yale. It was there that he met Foster, who had recently completed his architectural studies at Manchester University. The two students studied under Paul Rudolph (for whom Foster briefly worked), Serge Chermayeff, Vincent Scully, and the visiting critic James Stirling. In the United States, Foster and Rogers were attracted to the ideas of Buckminster Fuller and the work of Louis Kahn, Eero Saarinen, Frank Lloyd Wright, and the Case Study architects.

Back in London in 1963, Rogers and Foster, together with Wendy and Georgia Cheesman, formed up a partnership known as Team 4. Two early commissions, Creek Vean House, in Cornwall (1964–1966), and Skybreak House, Hertfordshire (1965–1966), are transitional designs within the careers of both men. The terraced forms and concrete-block finishes of the former have often been attributed to the influence of Wright and Atelier 5, while the cinematic open-plan and high-modern interiors of the latter prompted Stanley Kubrick to use it to film one of the rape scenes of A Clockwork Orange

19. Translate the text

The Chicago High-Rise

The continuing faith in technology and progress can be found by considering the work of Skidmore, Owens & Merrill (SOM), perhaps the largest professional firm in the world operating out of New York, Chicago, and San Francisco. The firm, which was founded in 1937, moved to the forefront of architectural visibility in the 1950s with such designs as Gordon Bunshaft's Lever House (1951–1952) and Bruce Graham's Inland Steel Building (1956–1957) – both of which epitomized the sleek style of high modernism. The 19-story Inland Steel Building, for instance, was clad with a curtain wall of stainless steel and green-tinted glass, and its shallow office slab, loosely attached to a 25-story service core, was framed with a clear span of 90-foot girders, supported on columns pulled outside to accentuate the sheen of the metallic finishes. The same building holds another distinction in that it launched the career of Fazlur Khan, an engineer from East Pakistan (now Bangladesh) who was completing his doctoral studies in 1956. After designing the structural system for the Inland Steel building, he sought work in East Pakistan for a brief period but then returned to Chicago and SOM in 1960. Here he rejoined Graham's team and also met Myron Goldsmith, a recent transfer from the San Francisco office. Goldsmith was also an architect and engineer with impressive credentials. He had been studying at Armour Institute of Technology (now Illinois Institute of Technology) in 1938 when Mies van der Rohe arrived to head the school. After graduating, Goldsmith worked for seven years in his office before going to Italy for another extended stay under the mentorship of Pier Luigi Nervi.2 Chicago in the early 1960s was experiencing something of a building boom. Two major projects were underway in the Loop: the 31-story Civic Center of C. F. Murphy, and Mies's Federal Center complex. A few blocks to the north along the river, Bertrand Goldberg's twin 70-story circular towers of Marina City were under construction – yet another future icon of American modernism. In 1961 Bruce Graham had commissions in hand for two tall buildings: the Chestnut-DeWitt Apartments on the near north side, and the downtown Brunswick Building. Both became experiments exploring the notion of a "tube" structure, an idea that was not entirely new to structural thinking but one that at the same time had never been fully exploited.

20. Translate the text

The Language of Postmodernism

The 20 years that Jencks had foreseen as necessary to create a new style would soon conflate rather dramatically. For scarcely two years had elapsed when he – in 1977 – published his best-selling

book, The Language of Post-Modern Architecture. The architect and critic, now drawing upon his semiotic studies, no longer had any doubts that the death of modernism had indeed taken place. Indeed, he was almost precise in giving the exact minute of modernism's demise: "July 15, 1972, at 3:32 p.m. (or thereabouts) when the infamous Pruit-Igoe scheme, or rather several of its slab blocks, were given the final coup de grâce by dynamite." He was, of course, referring the demolition of Yamasaki's crime-ridden and much vandalized urban-renewal project in Saint Louis, which housing authorities mercifully dispatched with explosives after it had become the symbol of the failed urban renewal strategies of the 1950s and 1960s. Jencks's book was successful on many levels, as its numerous reprints have since demonstrated. In its original form, it was a sleek and voguish visual production, rather lavishly produced with a multitude of color images (relatively rare at the time), discussions of historical and contemporary buildings, as well as architectural and pop-cultural allusions – ranging from John Nash's Royal Pavilion at Brighton to a waterbed scene from the James Bond film Diamonds Are Forever. The text runs parallel and somewhat independent of the captioned images, allowing the "h u r r i e d r e a d e r," to whom Sigfried Giedion once referred, to ignore the main text for the most part and read the book through the illustrations and captions. And if, for Jencks, Mies van der Rohe becomes the depreciated poster child of modernism's disdained "univalent architecture" (architectural signs based on one or a very few meanings), the German architect does not stand alone in his uncommunicative disgrace. Frank Lloyd Wright, Gordon Bunshaft, I. M. Pei, Aldo Rossi, and Herman Hertzberger, among others, are also issued citations for their semiotic muteness, whereas Eero Saarinen, Jørn Utzon, and Le Corbusier escape with a warning ticket, if only because of the "superabundance of metaphorical responses" evoked in their respective designs for the TWA Terminal, the Sydney Opera, and the chapel at Ronchamp. The few architects praised for their early postmodernist essays include Ricardo Bofill (Walden Seven), Richard Rogers and Renzo Piano (Pompidou Centre), Michael Graves (early houses), and Cesar Pelli (the Blue Whale).

21. Translate the text

The turn toward more pragmatic concerns that we witnessed in the 1990s was not only a response to the abstractions of post-structural theory or the collapse of postmodern sensibilities. Nor did it simply reflect a strengthening of economic conditions that would lead to a global building boom. Driving it from below, so to speak, was the profession's response to a number of social and cultural issues that – with the profession's previous assertion of autonomy – had largely gone unattended since the activism of the 1960s. It is important, however, to note the very different contexts in which these issues once again came to the fore. Architecture's response to such global problems of poverty, for instance, remains an issue for the twenty-first century, much as it was in the 1960s, except that the world of the 2010s is quite different, and even considerably more affluent than it was then. With the collapse of Communism in the 1980s and the widespread shift to market-based economies and freer global trade, many countries of Asia, South America, the Arabian Peninsula, and Eastern Europe began to experience significant economic growth; indeed, many have attained standards of living that rival those of the traditional economic powers. And although advanced technologies followed these economic trends, poverty did not entirely disappear. It simply transformed itself as an issue, as the once-acute problem of how to feed the world's growing population morphed into the problem of how to accommodate people (physically and economically) migrating from rural to urban centers. On the one hand, this trend resulted in the tremendous growth of populations in many global capitals, building booms, and urban over-expansion that often have had severe consequences with respect to pollution and quality of life. On the other hand, governments were also forced to take dramatic steps to address the housing problem, such as building entirely new cities and new economies to accommodate the influx of rural migrants. Since the turn of the millennium, the huge increase in the scale of such international events as the Olympics has led to major increases in infrastructural spending in the countries selected, also contributing to large architectural and planning undertakings. Of course, what we are talking about here is the phenomenon of globalization, the ramifications of which are myriad and filled with architectural implications. We are simply no longer living in the politically and economically fractured world of the Cold War era, and global economies as well as their cultures are becoming ever more closely interconnected. And if the internet and the ease with which people can interact with one another have tended to bring

artistic tastes and fashions into a kind of global concordance, it has also forced changes within the profession. Architecture of the twenty-first century, quite simply, has become a global activity practiced across borders with relatively few cultural or national restrictions. This trend will no doubt continue and many architectural offices have already undertaken the necessary re-orientation. “