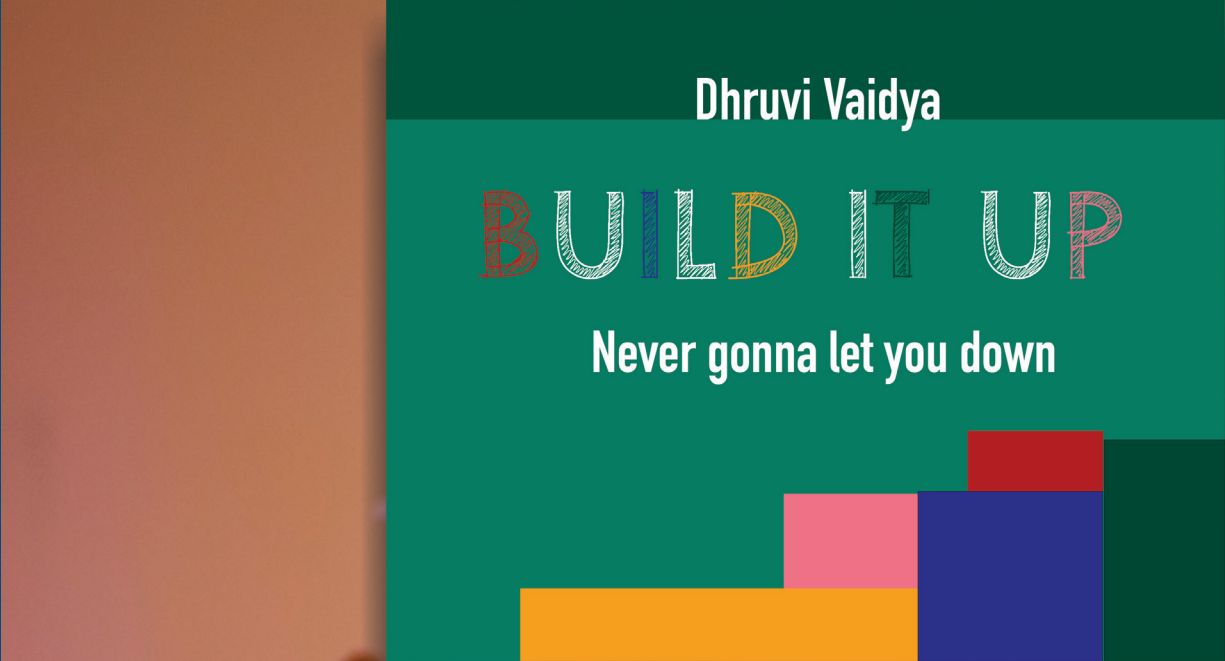


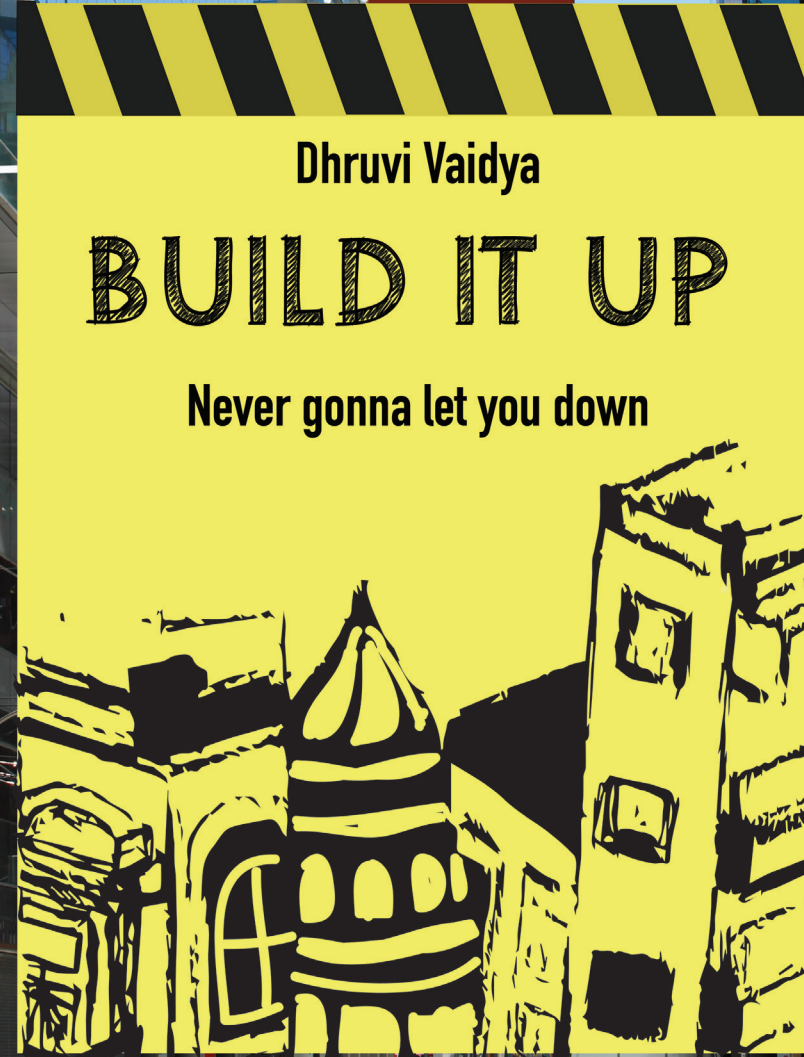
About the Author:
Dhruvi Vaidya is a second-year graphic design student who has interest flying around, and this time this time her interest climbed to a different height. Architecture is the art and technique of designing and building, as distinguished from the skills associated with construction



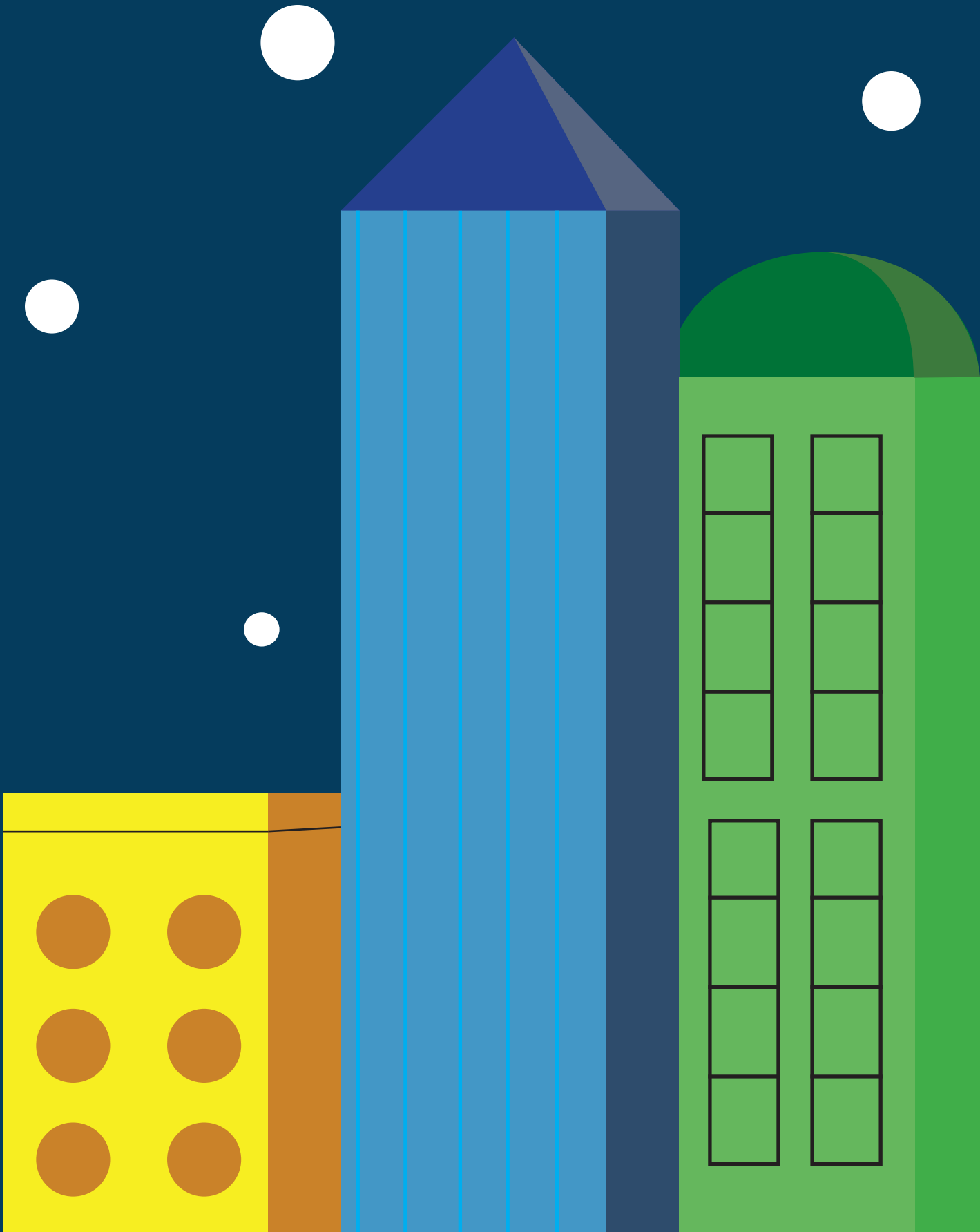
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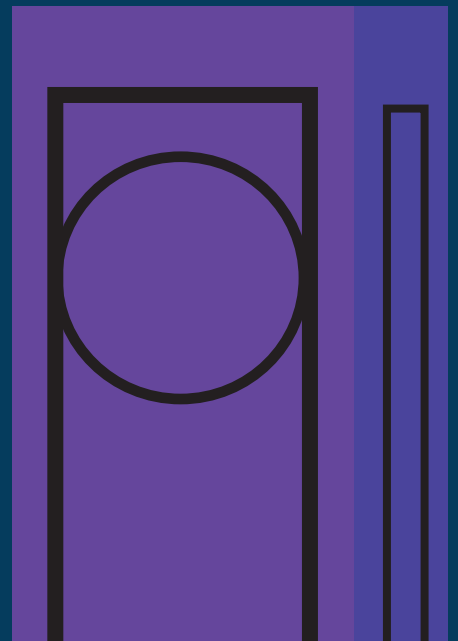
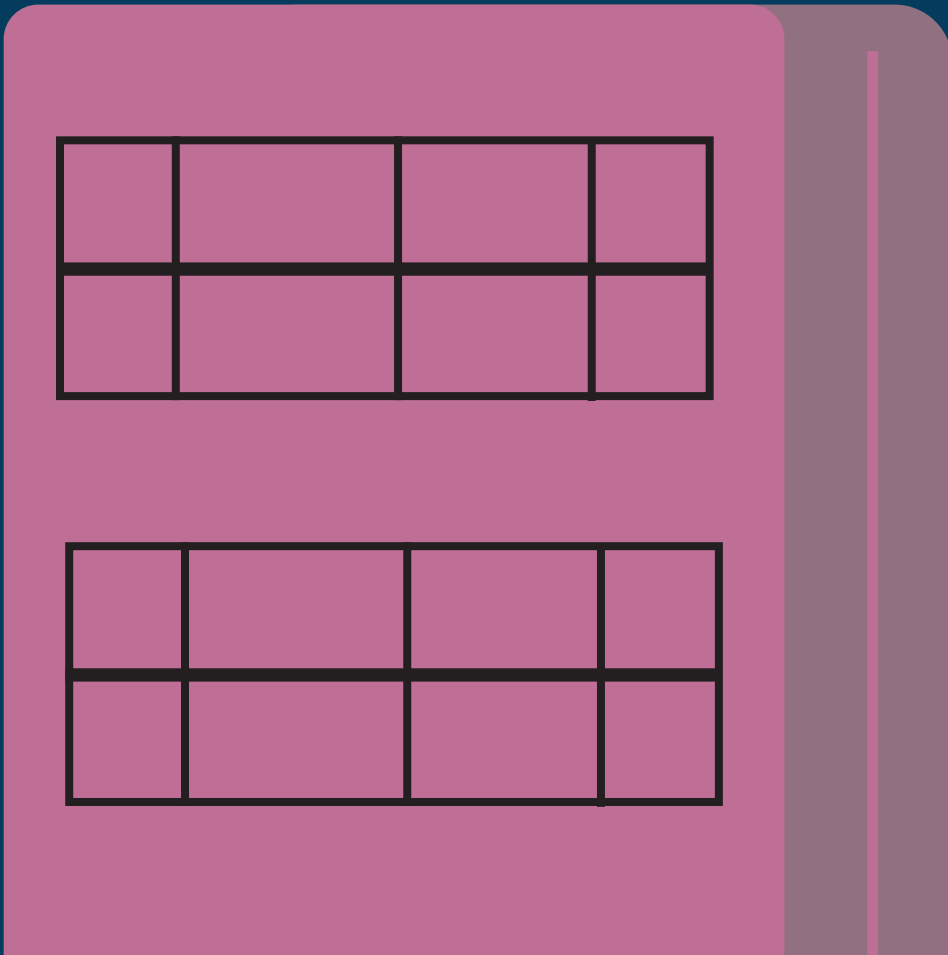


Built it UP



At its roots, architecture exists to create the physical environment in which people live, but architecture is more than just the built environment, its also a part of our culture. It stands as a representation of how we see ourselves, as well as how we see the world.





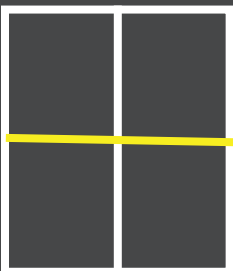
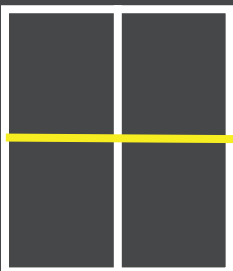
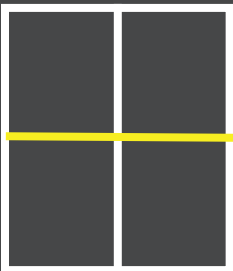
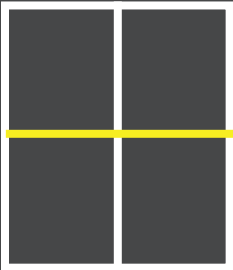


BUILD IT UP

By Dhruvi Vaidya



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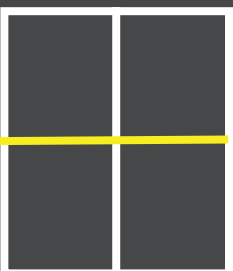
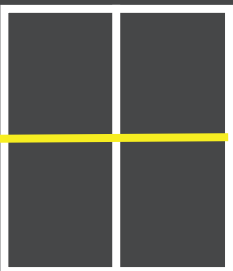
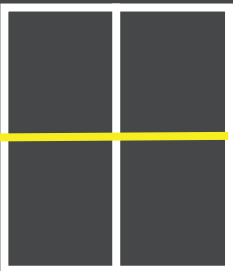
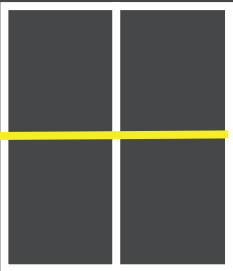
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Types of architectures

1. Residential architecture
2. Commercial architecture
3. Landscape architecture
4. Interior design architecture

1. The Residential architects design

homes, working with homeowners to design a custom home or adjust the design or layout of an existing home. A residential architect will often work with developers and home-building companies, such as when a developer is building a large housing development, the residential architect will plan and design the houses within the development specifications.

2. A commercial architect designs

buildings for commercial purposes, such as skyscrapers, large office buildings, condos, and hotels, as well as bridges, schools and museums. Commercial architects often specialize in a particular type of project such as hotels or bridges, which allows them to become a specialist in their field. These types of architects typically work with businesses rather than people,

working on large-scale projects that tend to be very lucrative. If you're interested in becoming a commercial architect, you will need to have a strong understanding of building codes and engineering skills.

3. Landscape architects

work on creating beautiful outdoor spaces as opposed to commercial properties or entire homes. Such spaces might include parks, college campuses, and garden areas. Landscape architects must consider the design of pathways as well as considering the impact on other public spaces connecting to the area they are working on (such as traffic). The challenge of this type of architecture often comes from the vast land to be designed and built on and the benefit to the people who will use it in the end.

4. interior design architects

work on the inside of buildings. These types of architects specialize in getting the most out of both big and small spaces and will need to have a good understanding of design knowledge such as colour theory. Interior designers will also have extensive knowledge of the function and feel of the materials incorporated in designs such as fabric and furniture.

The building blocks of buildings

The initiation phase is one of the most important aspects of construction project management. It encompasses all of the steps you must take before a project is approved and any planning begins. When the bidding is completed and the contractor has been chosen to do the work, the next stage of a construction project begins. Before they ‘break ground,’ as the industry saying goes, the project team is put together. During this phase, the project team orders, purchases, or rents all the materials, tools, and services necessary to complete the project. This stage of the construction project can be more or less challenging depending on the scope of the project, the resources availability, and the start date. This is the project execution phase where all the planning will pay off. Before any construction begins, the project manager, design, and engineering teams have already put a lot of effort to make a project successful. During the construction phase, the center stage belongs to the contractor and subcontractors. The project closure phase of the project is the last step in the long process of designing and completing a construction project. Now that all the work on the job site has been completed, the project will come to a close.



1. The Initiation Phase

Common Challenges in the Planning/Design Phase

Miscommunication is the biggest hindrance to starting a project off on the right foot. To develop the right design, project managers need to be in touch with the client, designer, architect, suppliers, and engineers. This is impossible without a reliable communication channel.

Another big challenge at the first phase of construction project management is undefined goals. Sometimes project stakeholders don't know what exactly they want, or they can't agree on materials. When the goals aren't clear, it's difficult to manage the project.

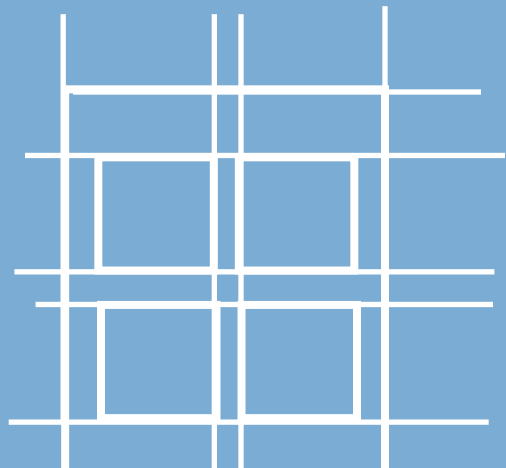
How Software Can Help with Planning/ Design

Construction planning has been greatly revolutionized, thanks to technology. The integrated construction manage-

ment software makes it possible for project managers and stakeholders to identify likely obstacles so they can work on coming up with remedies even before the project starts. Construction scheduling software makes it easier to record data agreed upon during the planning phase and makes data sharing more accurate and up-to-date.

When all the data from the different stakeholders is centralized, the risk of human error is reduced and the whole team stays on the same page.

Drawing up the schematic is usually a complicated process, but it becomes easier when you can gather all the necessary documentation in one place. When the information is instantly updated, the planning team can create an accurate picture of how the job will progress.



2. The Pre-Construction Phase

Common Challenges in the Pre-Construction Phase

A lot of unknown variables can appear if there's no clear picture of what the project is going to look like, how it is going to get done, and when it will be completed. Without evaluating all possible scenarios upfront, the client can have unrealistic expectations. Insufficient preparation increases the risk of issues and hinders your risk management when the project is underway.

During the pre-construction phase, there are numerous legal issues, permits, and building codes involved. Without proper paperwork management, documentation storage and control can become another challenge.

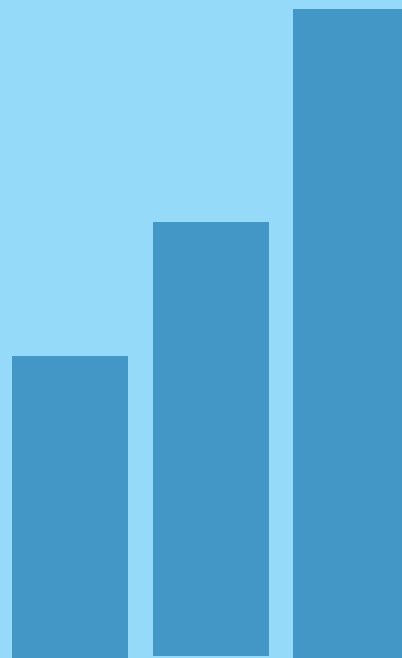
How Software Can Help with Pre-Construction

At this stage, key team members build a project timeline schedule that creates a logical workflow. Having reliable scheduling

software ensures smooth sailing as the project unfolds.

When the project team has been assembled, team members coordinate their responsibilities around everyone's schedules. That's when various scheduling views become handy, as teams switch between Gantt charts, calendar, and timeline.

Construction document management becomes important at this stage. Once securing permits or entitlements, all project-related documents are stored in one centralized location and are accessible by anyone.



3. The Procurement Phase

Common Challenges in the Procurement Phase

Miscommunication is one of the most common challenges in this phase. The client might have failed to define their expectations clearly, the contractor faced shipping delays or the wrong product being ordered, and the construction manager gets caught in the middle. It doesn't matter if the project is a living room remodel or a new multi-million-dollar golf club, without transparent, complete information, the project is in danger.

Without clear communication for purchasing and inventory management, your staff could be overspending, double-buying, or purchasing outside the project's requirements. This creates even more expense through replacement costs and lost time.

How Software Can Help with Procurement

A centralized and comprehensive procurement solution will reduce confusion and distress. When it comes to budgeting, you will be able to combat rogue spending and eliminate the need for a one-off buy at your local hardware shop. And when unexpected costs happen, your budget will be updated accordingly. Seamless communication with all stakeholders on one platform makes job costing, more transparent, and ultimately, more accurate.

Construction-specific project management software keeps all stakeholders up-to-date and facilitates team collaboration instantly with mobile access to contract documents, framework agreements, and spending data. As your project evolves, your timetable keeps pace with automated approvals.

When done correctly, procurement improves efficiency and reduces waste. When done incorrectly, the procurement process can cause delays and waste that negatively affect the project budget. Time is money, and with the right software, you stay on top of both.

4. The Construction Phase

Common Challenges in the Construction Phase

If the project team has diligently and properly executed the planning and pre-construction phases, construction should progress smoothly. But even with proper planning, there are still challenges. One significant challenge for the Construction Phase is mismanaged scheduling.

Poor scheduling is a common challenge at this point. Since most physical construction occurs linearly, one construction team can be waiting for another team to complete their part of the project. Each worker may have their own schedule, too.

Lack of communication or missing information can also be a challenge in this phase. Invoices or inventory lists could go missing, revisions to the design or blueprints may not be communicated to everyone efficiently, delays are not managed

optimally, there are countless challenges in the construction phase, and most of them are foreseeable and easily rectified with the right software.

How Software Can Help with Construction

During the construction phase, specialized software supports on-site project management through project monitoring. The construction manager will use software to oversee quality control, monitor the contractor's safety program, monitor contractors' project performance, coordinate permits, technical inspections, and monitor RFIs and submittals to ensure they are on track.

Payroll software helps maintain the schedule of payment and a process to deliver the funds. By keeping this information transparent, not only do you meet financial obligations, but also maintain a happy and productive workforce.



5. The Post-Construction/Closeout Phase

Common Challenges in the Post-Construction/Closeout Phase

Closeout is an essential phase when all the equipment and labor must be managed efficiently to avoid costly delays.

Construction projects generate a substantial paper trail. Assembling project-related documentation and getting it in the hands of the owner is one of the final steps of the project management team. Paper-based document management can lead to all sorts of errors and gaps in documentation, so using a cloud-based document management system is important throughout the project.

How Software Can Help with Post-Construction/Closeout

Closeout can be done faster by automating and tracking the collection of doc-

uments. Drawings, warranties, photos, training videos — the list of post-construction essentials goes on. With the right software, you can deliver key information in a mobile-friendly format so it can be accessed anytime, anywhere.

Document management plays the center stage during the closeout. The documents created during a construction project can be useful for any number of reasons for the owner's team and are an important reference tool that the owner can refer to months or even years after project completion if needed. When all documents about each job are stored in a central location, delays and errors are minimized.

Importance of technology

Effective construction project management is nearly impossible without industry-specific software which allows project managers to:

Perform accurate job costing.

Manage project budgets.

Create reliable schedules and share them with subcontractors and clients.

Automate project updates.

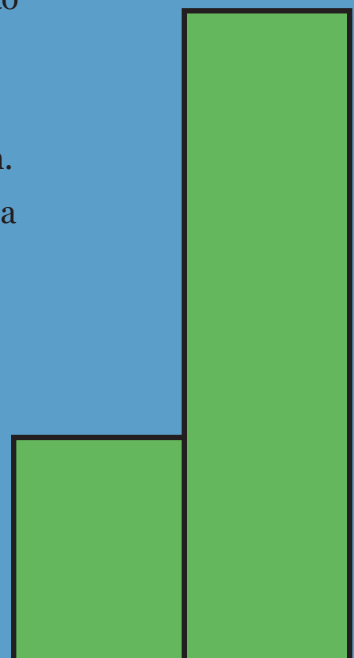
Manage contracts and change orders.

Stay on top of the deadlines with work-in-progress reports.

Manage equipment and inventory.

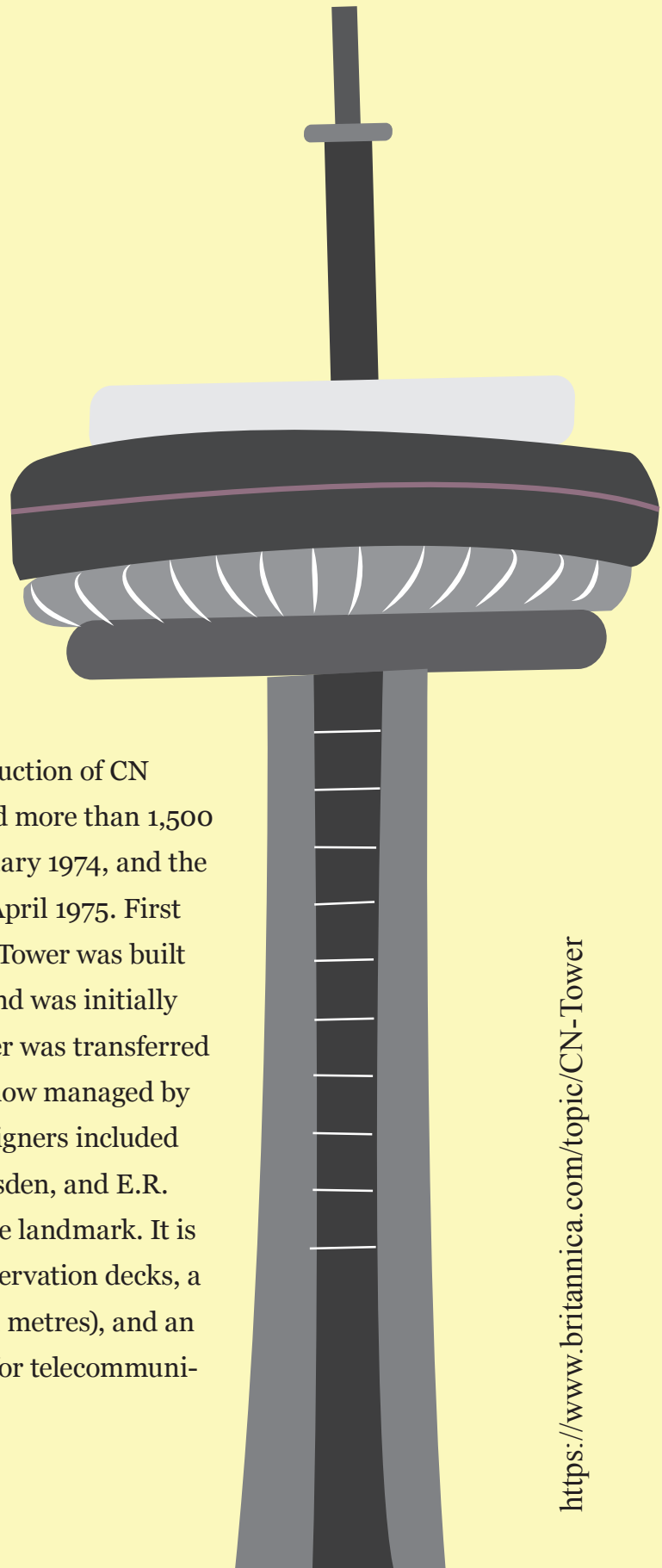
Allow your subcontractors, clients, and other stakeholders to access the information they need when they need it.

Technology makes our lives easier and more efficient in so many areas – and the construction industry is no exception. Consider how much faster it is to use a chainsaw instead of a handsaw.



The CN Tower

CN Tower, also called Canadian National Tower, broadcast and telecommunications tower in Toronto. Standing at a height of 1,815 feet (553 metres), it was the world's tallest free-standing structure until 2007, when it was surpassed by the Burj Dubai building in Dubayy (Dubai), U.A.E. Construction of CN Tower began in February 1973 and involved more than 1,500 workers; the tower was completed in February 1974, and the attachment of its antenna was finished in April 1975. First opened to the public on June 26, 1976, CN Tower was built by Canadian National Railway Company and was initially privately owned, but ownership of the tower was transferred to the Canadian government in 1995; it is now managed by a public corporation. CN Tower, whose designers included John Andrews, Webb Zerafa, Menkes Housden, and E.R. Baldwin, is by far Toronto's most distinctive landmark. It is a major tourist attraction that includes observation decks, a revolving restaurant at some 1,151 feet (351 metres), and an entertainment complex. It is also a centre for telecommunications in Toronto.



<https://www.britannica.com/topic/CN-Tower>

ROM

Royal Ontario Museum

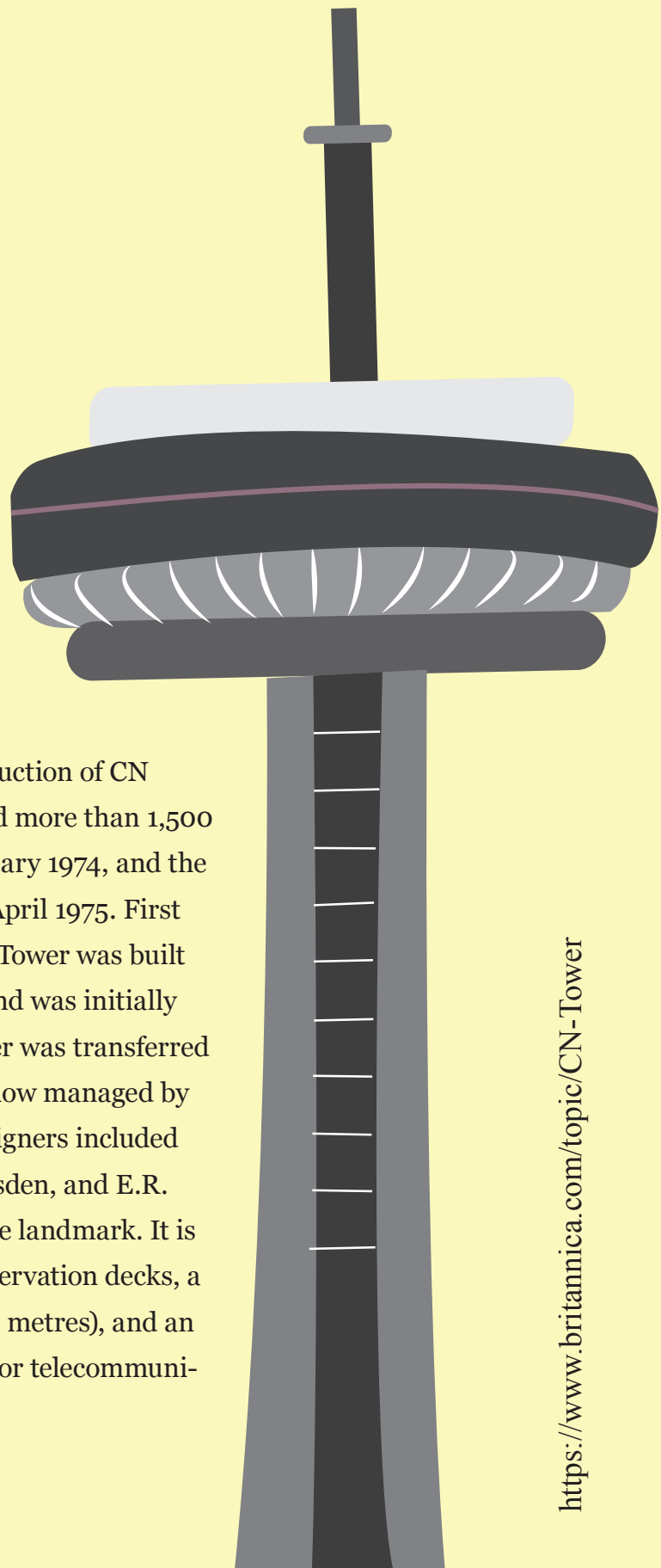
Founded in 1914, the Royal Ontario Museum showcases art, culture and nature from around the world and across the ages. Among the top 10 cultural institutions in North America, Canada's largest and most comprehensive museum is home to a world-class collection of 13 million artworks, cultural objects and natural history specimens, featured in 40 gallery and exhibition spaces. As the country's preeminent field research institute and an international leader in new discoveries, ROM plays a vital role in advancing our understanding of the artistic, cultural and natural world. Combining its original heritage architecture with the contemporary Daniel Libeskind-designed Michael Lee-Chin Crystal, ROM serves as a national landmark, and a dynamic cultural destination in the heart of Toronto for all to enjoy.

<https://www.jonasconstruction.com/blog/phases-of-construction-project-management/#:~:text=The%20construction%20process%20is%20the,its%20own%20set%20of%20challenges.>

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History of architecture

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Famous architects

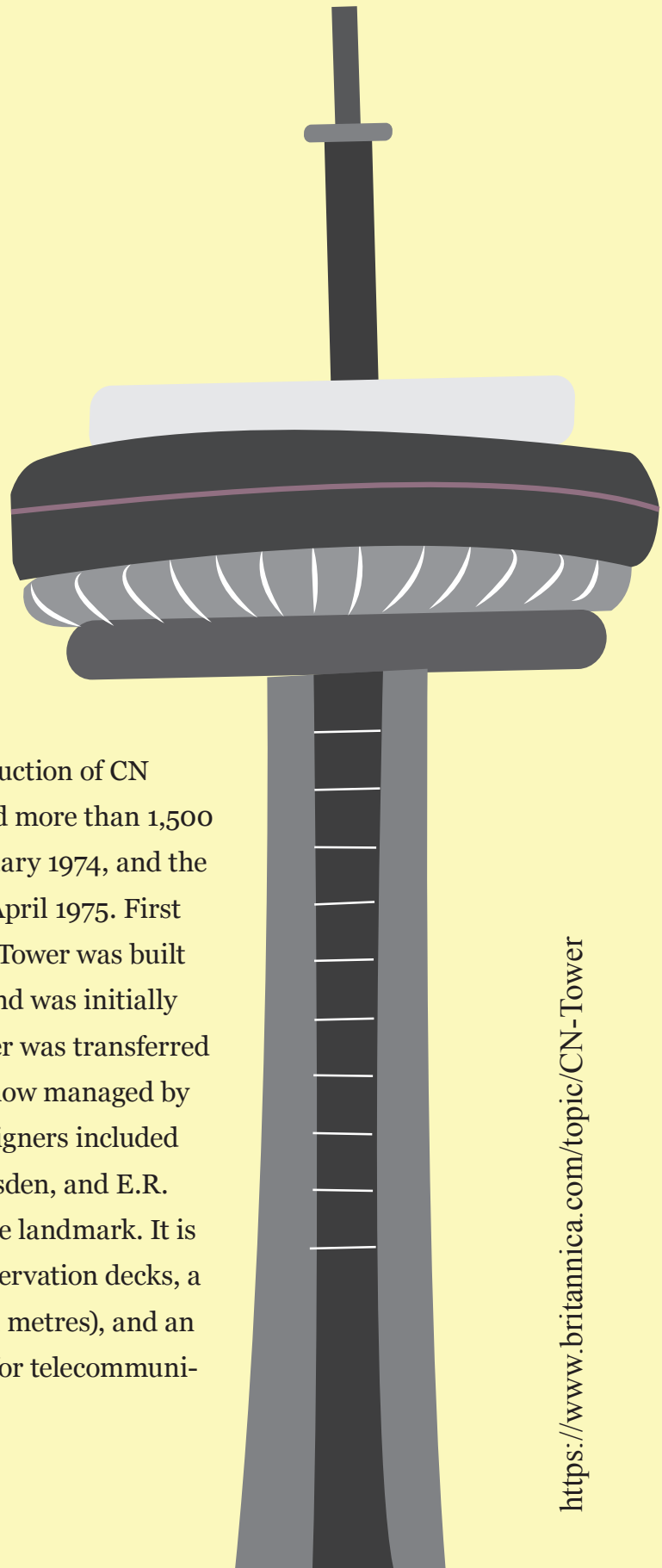
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The builder's famous schools

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Jobs around

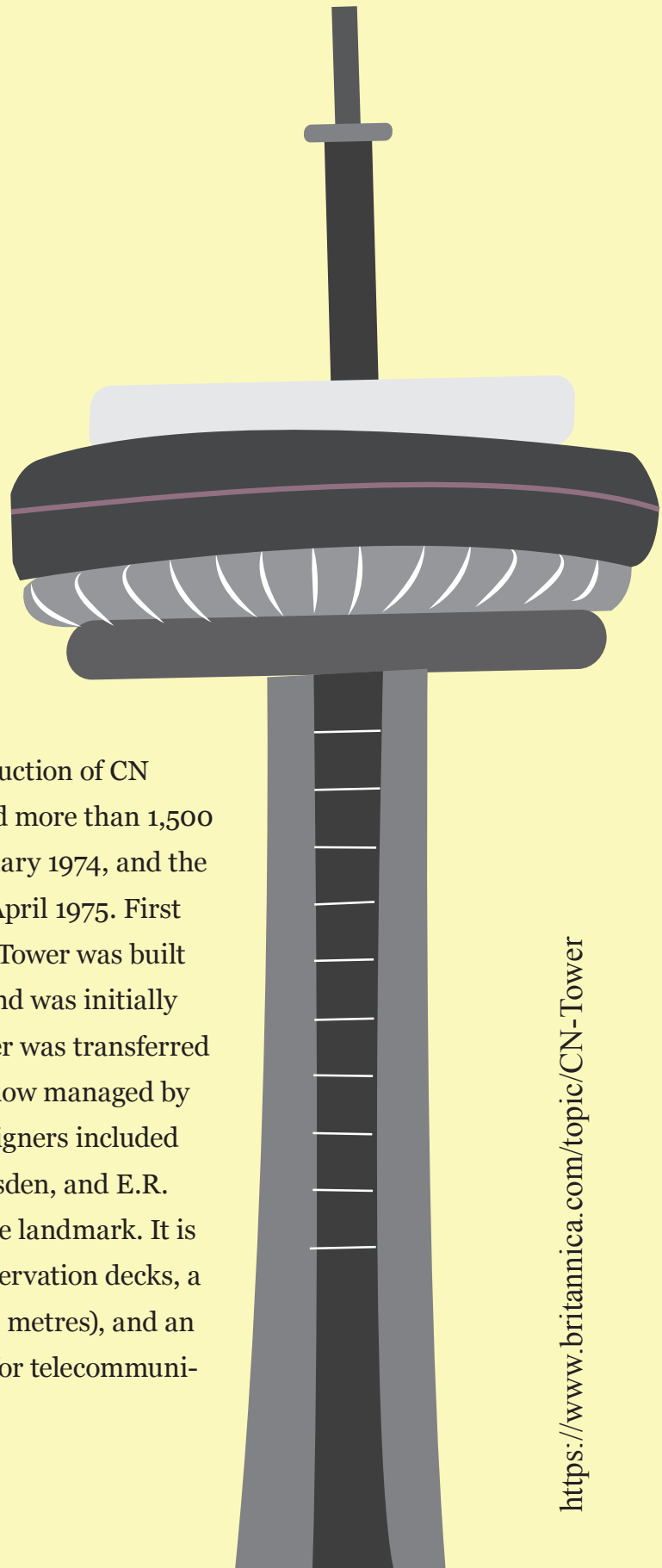
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Changing trends

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Basic materials used

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