

# SPOTLIGHTS

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Spotlight is our way of capturing and sharing with you fantastic examples of great practice and innovation within Education.

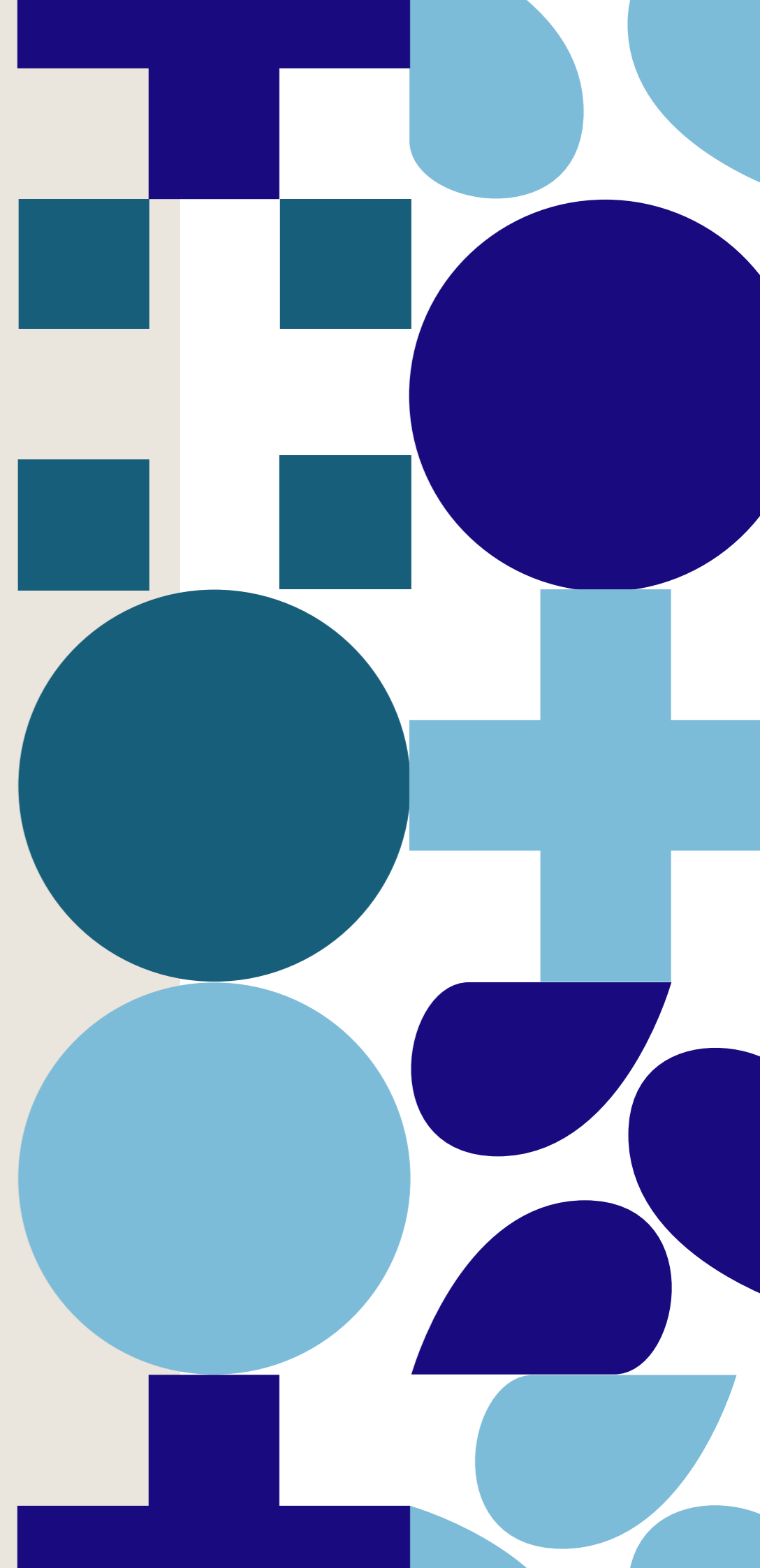
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# UNIVERSITY OF SHEFFIELD

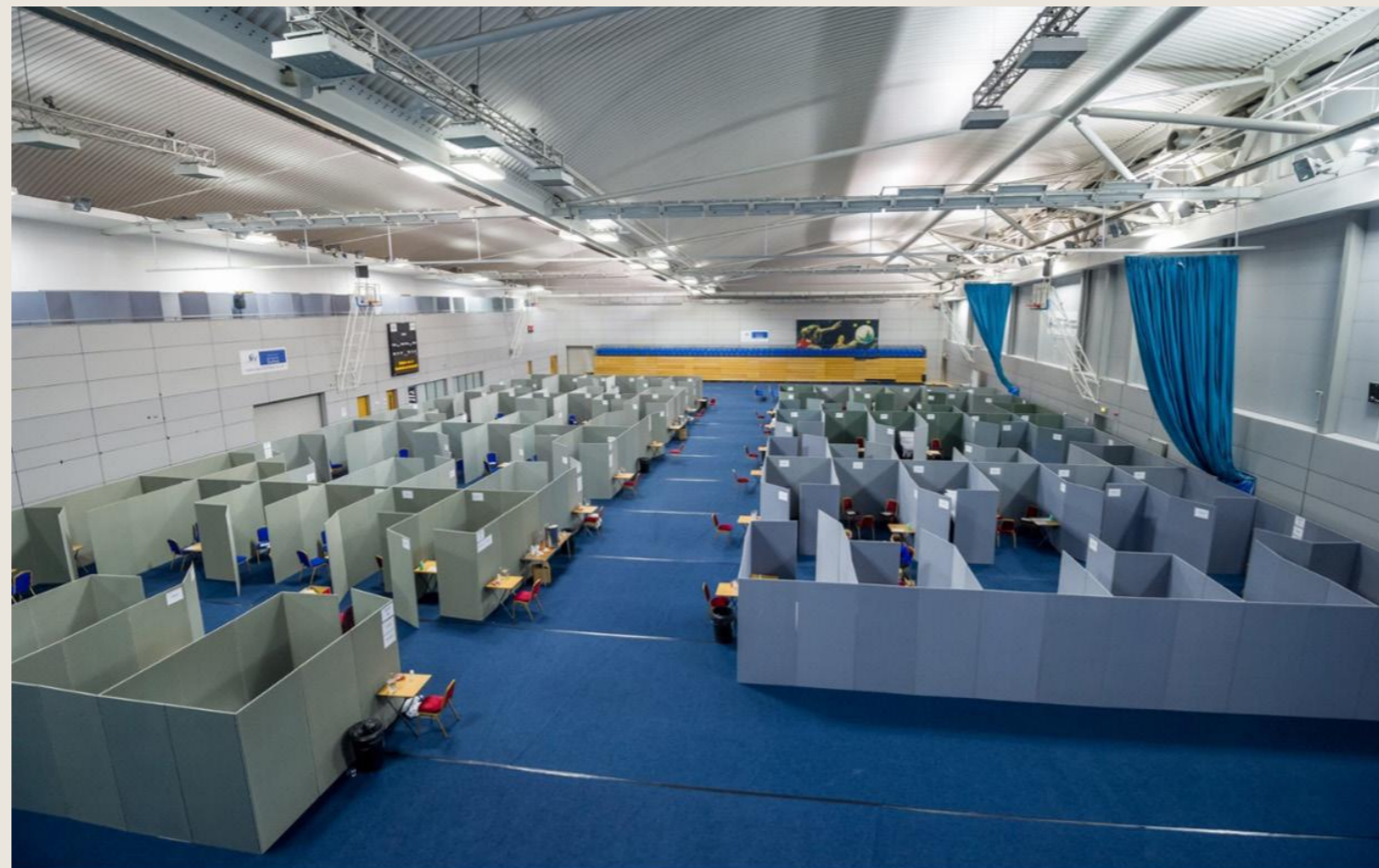
**Sheffield Medical School**



# Context

## About the Academic Unit of Medical Education at the University of Sheffield.

The Academic Unit of Medical Education is a department within The Medical School which forms part of the Faculty of Medicine, Dentistry and Health at The University of Sheffield. The Academic Unit of Medical Education is one of the leading centres in the UK for Medical Education. The University of Sheffield is a world top-100 university renowned for the excellence, impact and distinctiveness of their research-led learning and teaching.



# The challenge

## Transforming student medical exams

The Medical School has been running Objective Structured Clinical Examinations (OSCEs) for many years. An OSCE is an assessment of competence and designed to test clinical skill. It is a hands-on, real-world approach to learning that keeps the examinees engaged, allows them to understand the key factors that drive the medical decision-making process, and challenges the professional to be innovative.

Ash Self, IT team leader at the Academic Unit of Medical Education says, "These examinations are hugely complex to organise and manage. The space requirements for these

highly complex clinical examinations means that we have to use the English Institute of Sport at Don Valley in Sheffield. We hold two OSCEs every year and at each examination day we normally run 15 circuits of 17 stations. Each station lasts 8 minutes in duration and each circuit requires examiners and patients.

A typical OSCE has approximately:

- 307 students;
- 200 examiners;
- 150 patients (Both real & simulated).

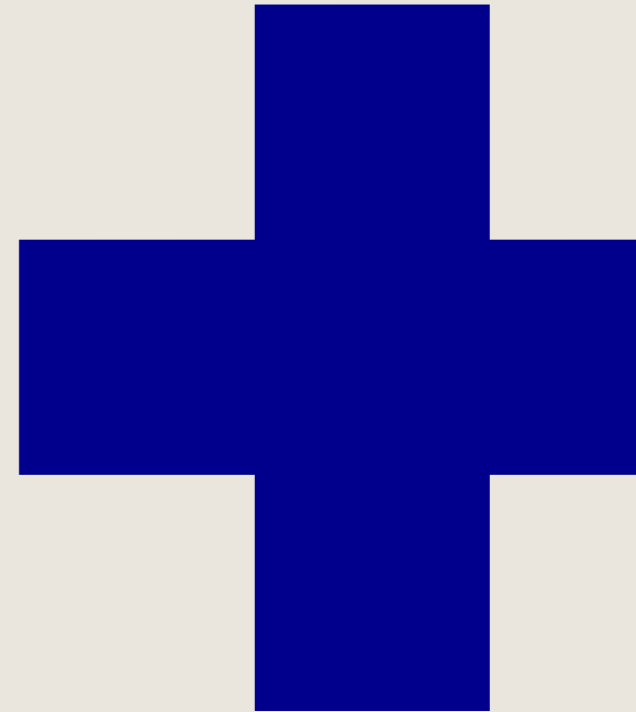
A large number of Medical School staff and exam facilitators are also on site.

The OSCEs are paper-based assessments and generate 3,136 sheets of paper.

All of the exam papers have to be transcribed on to a computer system by hand and it would take a team of people several months to complete this task.

Some of the common problems that would occur during the exams are:

- the inability to detect problems live regarding examiner, patient or student;
- incomplete feedback from examiners;
- miscalculations of final marks by the examiner.



# The solution

## Using iPad to digitalise assessments

*“On the 2nd of November 2016, the Medical School ran the largest electronically marked OSCE in the UK and possibly in Europe.”*

### What is Observe?

The Medical School supplied each examiner with an iPad, which was pre-installed with a software package called Observe. Observe is an advanced observational assessment tool, with added video integration, used by institutions for high-stakes clinical assessment, such as OSCEs.

In addition to data collection and recording of results, Observe facilitates psychometric analysis, multi-examiner/multi location and direct feedback delivery. The software

is used to manage and facilitate medical, nursing, dentistry and veterinary OSCEs alongside other clinical exams.

Each OSCE now has an IT team that monitors the exam results in real-time. At the end of each exam a full data set is immediately available for analysis.

The entire IT process is managed by the Medical School IT Team. They are responsible for:

- building and maintaining the wireless network;
- monitoring data;
- ensuring the smooth running of each of the circuits;
- responding to any IT issues (foreseen or unforeseen).

The introduction of the iPad to examiners has eradicated paper-based administration, and delivered a host of other benefits too.

**Marking exams:** Students now receive their marks within 2 weeks rather than several months.

**Consistent marking:** The Observe software minimises (and in some cases eliminates) the possibility of examiner error in an exam situation.

**Real-time analysis:** The ability to spot errors in real-time rather than a few days after the OSCE is a huge advantage. Problems regarding examiners marking too harshly or too leniently can easily be detected in real-time.

**Feedback:** In the past, some examiners had raised concerns about the quality and legibility of their handwritten feedback. The introduction of the iPad has allayed this concern completely as all feedback is now typed.



# Why iPad?

## Total equality across examiners

Each examiner is issued with an iPad, giving each individual equal access to the same technology, so that nobody is disadvantaged.

## Predictive text

As the examiner types on the iPad they see predictions for their next word and other suggestions. This is a huge benefit to the examiner as they have a short window between exams to type up their feedback. The tool also helps the examiner with spelling and punctuation.

## Ease of use

The mass appeal of Apple products means that many examiners have pre-existing experience using iPad devices. Training is also delivered to the

examiners on the Observe software, the iPad and an additional training video is available for examiners to watch.

## Single App mode

The ability to lock the iPad to a single app has increased focus and attention during the exams.

## Reliability

The iPad devices have been perfect devices for the OSCEs. They are extremely reliable with brilliant battery life.



# The impact

*“The iPad and the Observe software have been transformational for me. I was initially reluctant as I wasn’t convinced that we would have enough time to assess the exam and type up our feedback. I was incredibly impressed at how easy it is and how efficiently the OSCEs are run.”*

- Medical School examiner

## Student experience

- The exam experience now involves less admin, meaning fewer interruptions for each candidate.

- Single app mode ensures the examiner’s attention is focussed more fully and consistently on the candidate.

- Results turnaround is faster due to the reduction in the administrative load. This means less wait time and anxiety before receiving results.

## Examiner and administrator experience

- Feedback is of a higher quality with fewer errors.

- Administrators are extremely pleased that they don’t have to enter huge amounts of exam data and chase up missing examination marks. This process would normally take several months and has been a huge cost saving.

## The Future

The Medical School now run OSCEs for their Physicians Associate course and are using the iPads for marking other paper-based short answer question examinations (SAQs).





# Let's explore.

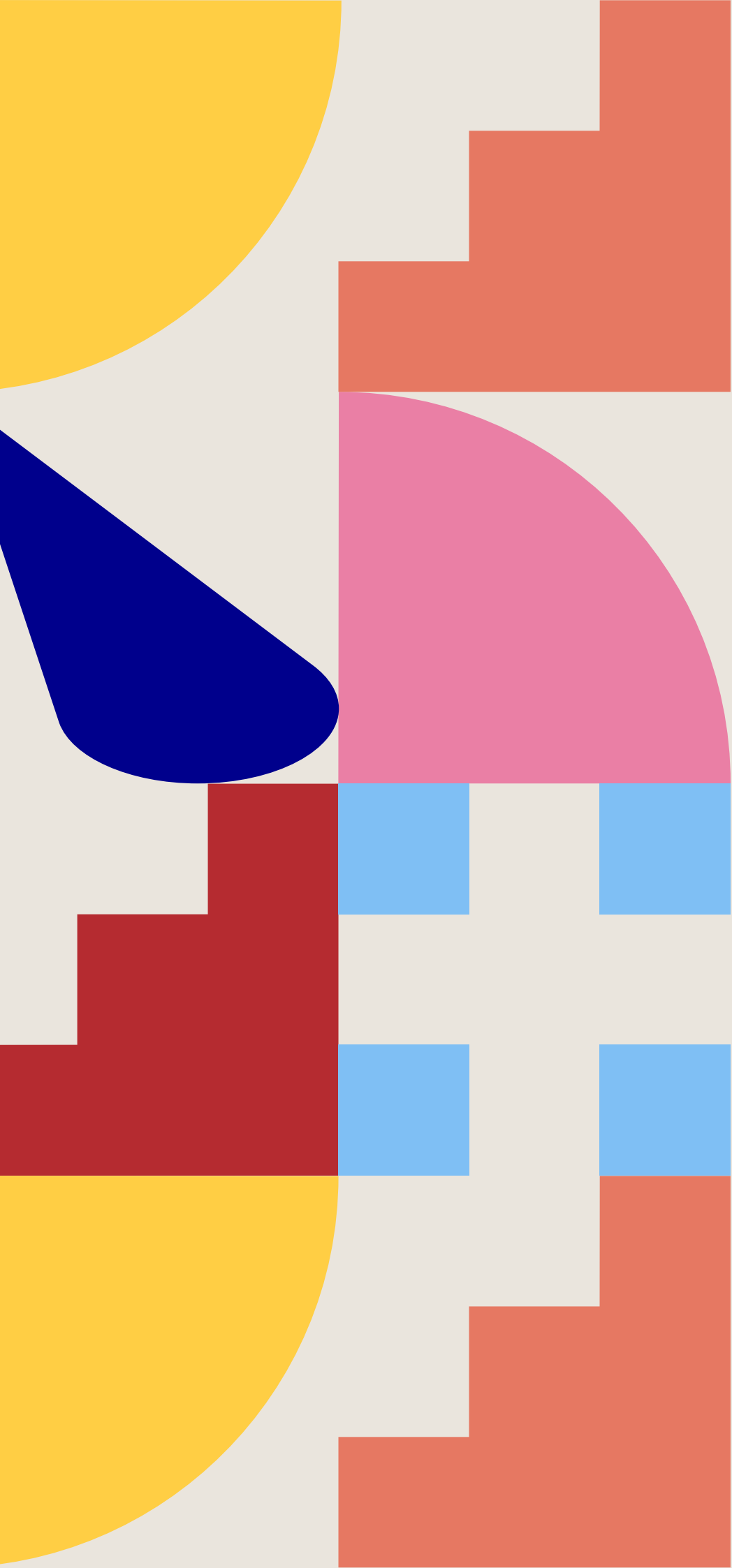
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