

A photograph of a dirt road in a landfill, with children playing soccer. The scene is overlaid with a teal color filter. The road is flanked by large mounds of garbage. In the foreground, several children are playing soccer on the dirt road. The sky is filled with many birds flying. The overall mood is one of resilience and play in a challenging environment.

WASTE

MULTI-PURPOSE STADIUM

international open ideas competition

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WASTE

By 2025, waste produced by cities around the globe will be enough to fill a line of rubbish trucks 3,100 miles long every day.

- World Bank Group¹

Waste is a global issue common to all urban areas. The world now creates more than a billion tons of garbage a year, which it incinerates, buries, exports, and recycles.² As major cities expand so must their ability to reverse wasteful tendencies and begin living more efficiently and sustainably.

Until recently in Lagos, the Nigerian megalopolis handled its waste by relocation. It seemed simple enough to drive waste outside of town to the 100-acre Olusosun dump site beginning in 1992. Since then, Lagos is estimated to be the fastest growing metropolis in the world, expanding from a population of 7 million to over 21 million. The landfill that was once far from any urban activity is now surrounded by it. Neighbors of the landfill include educational, residential, commercial, industrial and religious buildings.³ Earlier this year, the Olusosun Landfill was shut down by local government and slated for redevelopment as an urban green space and public park.

Perhaps a vision for the new park could include an anchor program that incorporates new attitudes relating to waste. Waste in the urban environment goes beyond that which fills alleyways and landfills. In the urban core, space is something rarely taken for granted. Buildings serve a mix of uses while roadways and sidewalks are often places for commerce as well as transportation. Yet, the most profound and expensive modern day constructions humanity builds, continue to underperform.

The stadium is a revered place, but one with benefits that rarely extend beyond servicing a single team or small portion of population. In recent times, the construction of new stadiums has been met with harsh criticism due to their unrealistic budgets, sparse usage, tendency to fall into dilapidation, and inability to serve surrounding communities and city centers.



Waste in Lagos, Nigeria
credit: premium times

CHALLENGE

arch out loud asks participants to design a new multi-purpose stadium at the former Olusosun Landfill. How could this massive structure, known to be wasteful in its resources, limited lifespan, and inconsistent usage, confront critical issues of waste in Lagos while sited on a former landfill? Designers are encouraged to consider how the stadium might act as a porous entity, serving as both a world-class sporting facility and local commodity.

Participants should consider how the stadium could serve as an anchor for the rehabilitated site and function during times when sporting events are not in session. In order for the new proposal to avoid becoming another wasteful stadium, what local benefits could the stadium offer to a city burdened by issues such as lack of electricity, poor educational facilities, insufficient housing, regular flooding, and lack of drinkable water?

MEGACITY

Today, megacities are at the center of global conversation. The world’s urban population has come to outnumber that of rural areas. These “population corridors” are forming around the world; merging populated cities into unprecedented and unbroken urban landscapes. Lagos is one of the poorest and fastest-growing megacities. As Africa’s largest city and by some estimates the fastest-growing metropolis in the world, Lagos has been subject to rapid urbanization. The city is growing at a rate of 600,000 people per year, and has an average population density of 7,700 people per square mile.⁴ Infrastructure, housing, and working wages struggle to meet these overwhelming growth numbers.

Lagos is an economic engine for an entire region that, unlike its Chinese or Brazilian megacity counterparts, is not lifting its population out of poverty, but continues to concentrate wealth in the hands of a tiny minority. In 2017, the average Lagosian earned \$1,036 USD per year.⁵ About 80 percent of the workforce is part of the informal economy where individuals are doing business without oversight or support. From people scavenging garbage at landfills to major corporations (like mobile phone companies) doing business through informal kiosks on the side of the road.⁶ Regardless of the country’s financial disparity, people flock to the city in hopes for a better life. This phenomenon, *The African Dream*, has been underlined in architect, Rem Koolhaas’s book, *Lagos: How it Works*. In the 2007 publish book, Koolhaas comments that present-day Lagos reflects how other cities will evolve in the future and that the city is in “a constant state of becoming.”⁷



Urban Sprawl reaching Landfill | credit: bbc news



Scavengers in Lagos, Nigeria sorting plastic to sell at Olusosun dump site credit: premium times

OLUSOSUN LANDFILL

Rapid urbanization yields rapid waste. Lagos produces 11,000 tons of waste per day⁸ which is 0.3% of the total waste of the world’s cities, currently at 3.5 million tons.⁹ With the migration of individuals from rural areas, some of the city’s coastal slums ran out of usable land; causing the disposal of trash to overflow into the swampy areas of those slums.¹⁰

Landfills such as Olusosun were created outside the city to store waste away from inhabitants. But as the city grew, the once isolated landfill became the city center. Olusosun is now surrounded by residential, commercial, industrial and even religious buildings making overconsumption impossible to conceal.¹¹ As the site has been subject to many fires, only recently, March 2018, has the state shut it down as it was hazardous to the community. Plans to rehabilitate the landfill into a park include infrastructure beneath to harness methane emissions from the waste as energy for the city, and improve the country’s electricity shortage.¹²

Given the impending reincarnation of the landfill as a park, the site is missing an anchor—how could a multi-purpose stadium fill this void as an anchor for the park that engages the surrounding community?

STADIUM

Futbol (soccer) remains the No. 1 sport in the world, with the largest international fan base. Attending futbol matches instills a sense of pride for local populations. The stadiums that house these spectacles become a symbol of national pride and togetherness. Despite such opportunity, stadiums fall under major scrutiny due to their limited shelf-life, sparse usage, and disruptive size; making them almost impossible for reuse. Moreover, often within 10-20 years, stadium infrastructure can degenerate. If not well maintained, they become seldomly used, unsafe for events, and ultimately abandoned.

At its peak, Lagos National stadium was one of the best in Africa, until it fell victim to neglect. It last hosted a major football match in 2002, and for the past 15 years, it has been abandoned without proper maintenance or events. It is now mostly occupied by squatters.¹³ With a lack of state-of-the-art stadiums, Lagos is losing athletes to other countries. Resulting in government plans to build five new stadia to promote sports excellence and tourism.¹⁴

Stadiums are both an icon for a community and business enterprise. Generally, they are used for a couple of hours a day, for a few events a year, which can be economically straining for developing countries, such as Lagos, by wasting plots of development. Instead of depriving citizens the opportunity to attend sporting and arena events by banning stadiums, the stadium typology for Lagos should be rethought to be both accommodating and sensitive to such places. By combining the traditional stadium program with another supplementary permanent program, the structure could accommodate events year round.

This potential typology could meet the needs of the entire community by creating a mini city center within their neighborhood and a more sustainable approach to stadium design.



LekkiMarket in Lagos, Nigeria
Credit: WikiCommons

MULTI-PURPOSE

In an effort to anchor the stadium on the site and influence the surrounding area, what additional program could fit the stadium-hybrid mix in this context?

- Community Center – stadium as recreation facility?
- School – stadium as educator?
- Recycling Center – stadium as sustainability hub?
- Housing – stadium as landlord?
- Retail – stadium as bazaar?
- Clinic – stadium as healer?
- Energy Creator – stadium as power plant?

What combination could meet the requirements of a national stadium when games occur, while meeting the requirements of the everyday community at other times, therefore ensuring beneficial use of the former landfill site?



Dilapidated National Stadium in Lagos.
Credit: Shina Oludare

PROGRAM

Designers should interpret the ideal supplemental program for the stadium, exploring the inherent shortfalls of stand alone stadiums. Proposals should address the present-day concerns of Lagos by implementing an additional program that meets the requirements of the surrounding neighborhood and city.

Stadium

- 1 Futbol (Soccer) Field
- Seating for capacity of 40,000 spectators
- Support & Amenities (Lockers, Merch, etc.)
- Vehicle Parking and Drop-off (surface or below ground, consider driverless cars, ride sharing, bikes and tunnel entry points).

Supplemental Program

Choose a supplemental program from the following:

- Community Center
- Educational Facility
- Recycling Center
- Housing Complex
- Retail / Bazaar
- Clinic / Health Center
- Power Plant
- Other (Participant Choice)

Other Considerations

- 1) **What other programs might better serve Lagos?** What role might a hybrid stadium take to best serve the city?
- 2) **How will the multi-purpose stadium change over time and adapt to different conditions?** Will it grow, change form, or change use?
- 3) **How can this anchor serve as a role model for the circular economy, zero waste, material efficiency and reuse?** Can it transcend sustainability beyond ecology, possibly through economics, politics,

OBJECTIVES

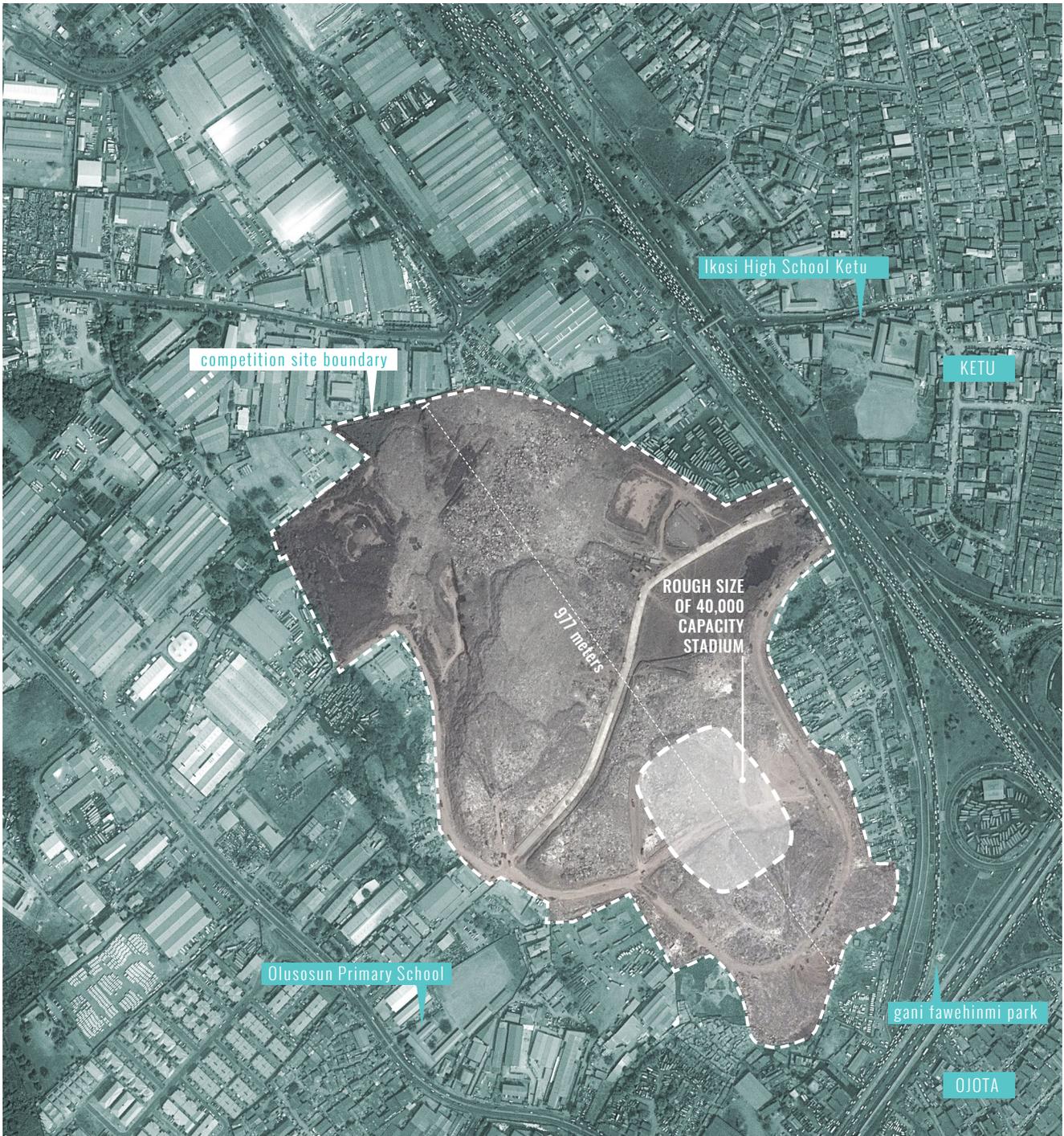
- 1 To examine the current landfill condition of the site
- 2 To combat the inherent wasteful stadium typology in regards to use of building materials and tendency to fall into disrepair.
- 3 To propose a supplemental program that employs more frequent and beneficial use within the community.
- 4 To consider the site's significance as an international destination for football tournaments.
- 5 To consider the city's planning measures to transform the site to a public park.¹⁵

Project submissions are not required to meet each of the above objectives, though meeting some or all objectives is strongly encouraged.



A mixed-used stadium housing proposal, during the event and after the event.

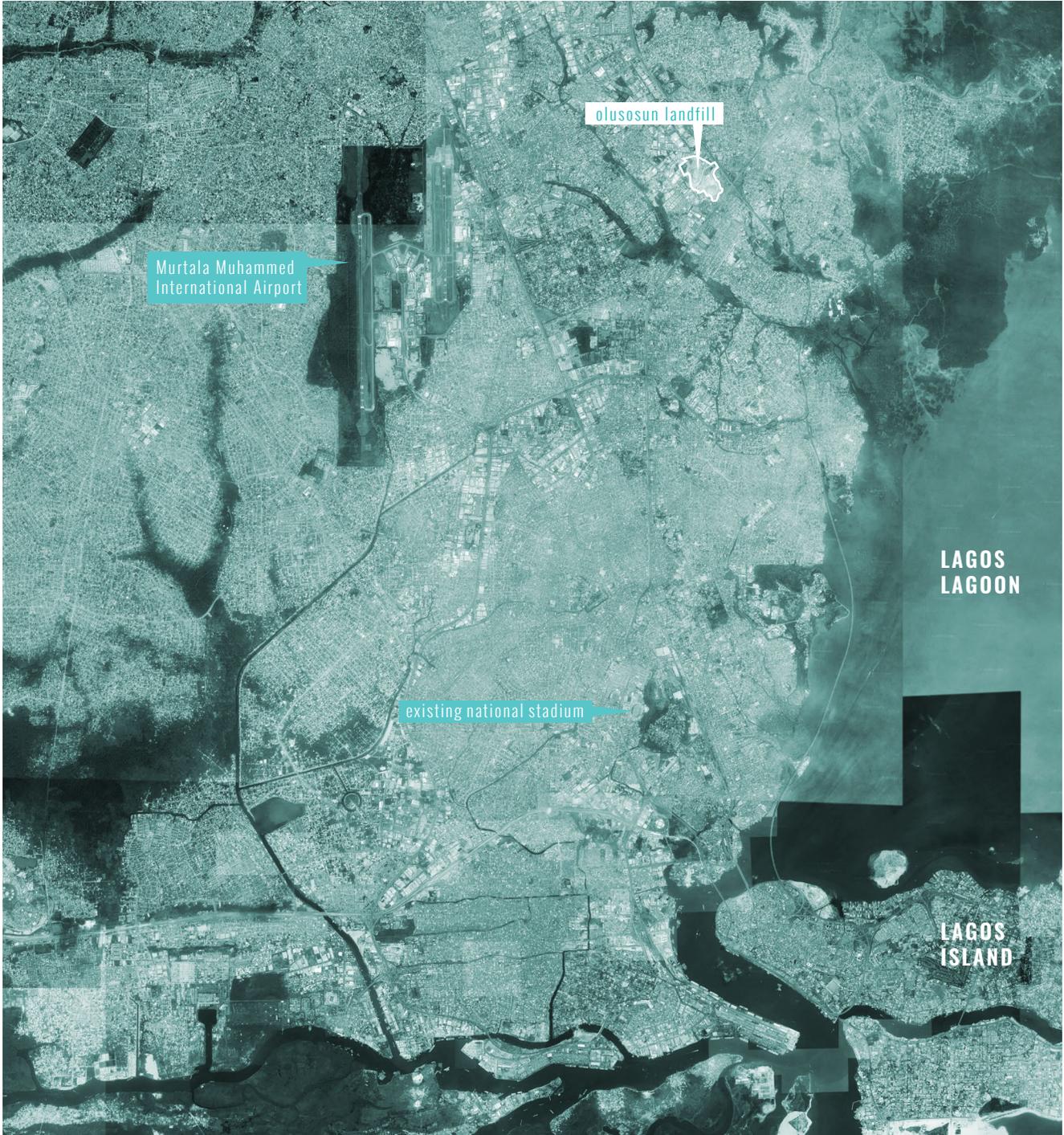
site info



Competition site boundary at the Olusosun Landfill in Lagos.
coordinates: 6°35'40.4"N 3°22'38.3"E

NOTE: Designers are given a large site, but are not required to address all of the area within the competition boundary.

site info



Olusosun Landfill in context of the greater Lagos area.
coordinates: 6°35'40.4"N 3°22'38.3"E

site info



Nigeria in context of surrounding countries

site info



Aerial photos of the Olusosun Landfill site

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NATE APPLETON

HOK
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ENTERTAINMENT

EVALUATION CRITERIA

The jury will evaluate projects based on the participants' interpretation of the program and ability to meet the competition objectives.

arch out loud encourages creativity, innovation, and risk-taking. Winning projects should inspire with great ideas and compel with memorable visuals.

The jury reserves the right to add additional criteria that they deem critical to the topic and site. Additionally, the jury reserves the right to select projects that do not meet all of the brief's criteria as long as they justify their selection.

JUDGING PROCESS

Projects will advance based on the outlined competition objectives and evaluation criteria. The jury's decision is final and sovereign in determining the overall winner, three runner-ups and 10 honorable mentions. The jury has the right to add additional honorable mentions as it feels necessary.

The Directors' Choice Award will be determined by the **arch out loud** competition organizers. The award will be given following the announcement of winners.

AWARDS

FIRST PLACE \$5,000

RUNNER-UP \$1,000

RUNNER-UP \$1,000

RUNNER-UP \$1,000

10 HONORABLE MENTIONS

DIRECTORS CHOICE AWARD

TOTAL PRIZE PACKAGE \$8,000

Depending on the country in which a team lives and pays taxes in some prizes may be subject to withholding in order to meet corresponding legal regulations.

GENERAL PUBLISHING

Winning projects will be published across international platforms including websites, blogs and magazines as available. Some of the projects from the competition will be featured at various times on **arch out loud's** social media. Following the competition, all winning projects will be published on the **arch out loud** website. Each project feature will list authors. Links to the author's personal website will be included upon request.

COMPETITION DETAILS

CALENDAR

Jul 23rd, 2018	Competition opens and Advance registration begins
Sep 10th, 2018	Advance registration closes
Sep 11th, 2018	Early registration begins
Oct 29th, 2018	Early registration closes
Oct 30th, 2018	Regular registration begins
Dec 16th, 2018	Registration deadline
Dec 17th, 2018	Submission deadline
Jan 21st, 2019	Winners announced

SUBMISSION MATERIALS

Each team is required to submit one **(1) ARCH D size board** (24in x 36in or 610mm x 914mm) oriented landscape or portrait (JPEG format). Teams must place their given order number in a corner of their board in Arial 18 pt font. Registration and submission materials are due by 11:59pm Eastern Standard Time (New York City) on designated calendar dates.

The content of the board is left open to each team to decide what best communicates its concepts and solutions to the jury. Possible board content may include - but is not limited to - plans, sections, elevations, rendered perspectives, diagrams and images of physical models. Designers should also include a **100-word max explanation of the project**, for publishing purposes, in a text field on the submission page (PDF format).

www.archoutloud.com/-submit

PLEASE NOTE:

All text on submission boards **MUST** be in English. Text written in a different language will not be considered during judging. For publishing purposes winners will be asked to submit individual images within one week of the announcement.

PAYMENT

advance registration:	\$55
early registration:	\$75
regular registration:	\$95

Payments for registering teams in the competition are made through the **arch out loud** web page portal. A team is not officially registered until they complete the payment process.

Credit or Debit Cards

The following major credit cards may be used and will be handled by Weebly checkout to ensure web security: VISA, MasterCard, American Express, & Discover. Please provide the cardholder's name and cardholder information exactly as shown on the card. **arch out loud** will not have access to any credit card or personal information. No extra fees will be charged for using this method of

REGISTRATION

Following registration **each team will receive a confirmation email with an order number located in the top right corner**. This number is the only means of identifying teams during jury selection. The number will be necessary for project submission. Once the registration process is complete there are no refunds of fees.

www.archoutloud.com/-register

RULES AND REGULATIONS

ELIGIBILITY

Teams may be formed by one (1) individual or up to four (4) members. Team members can come from different universities and countries. Additionally, interdisciplinary teams are allowed, although it is recommended that at least one member have an architectural background.

Under no circumstances will members of the jury, members of the organization, or persons with a direct personal or professional relationship with members of the jury be allowed to participate in this competition.

FAQ

During the competition participants are allowed to send, through email, questions to **arch out loud** in order to help them better understand certain aspects of the project or any unspecified details.

Questions will then be posted and answered on the competition FAQ web page in order to ensure that all participants have access to the same information.

www.archoutloud.com/waste-faq

OWNERSHIP AND COPYRIGHT

All material submitted to the competition will become property of **arch out loud** and therefore give **arch out loud** all rights to publishing the material for promotion of the competition. Any materials that are published will be given appropriate attributes to authors. **arch out loud** maintains the right to modify any information in its files in order to better adapt it to any publishing platforms.

ADDITIONAL NOTES

arch out loud reserves the right to make any changes to this document. All modifications will be emailed to each registered team at the time of the change and posted on the **arch out loud** facebook page. It is the responsibility of the team to check provided email addresses and the **arch out loud** website.

This competition is an ideas competition and at the time of release will not result in any realization of an actual building. **arch out loud** does not own the area used for the competition site nor will the site be altered in any way as a result of this competition.

arch out loud is not responsible for any in-person research done on or around the competition site. Please abide by local private property laws.

arch out loud was not hired or contracted to organize this competition. Every aspect of this competition was fully developed by **arch out loud**.

Breaking of rules and regulations set in this competition brief or on the **arch out loud** website will result in the disqualification of the given team without any refund of registration fees.

www.archoutloud.com/terms-and-conditions

SOURCES

¹ Sieff, K. "The world is drowning in ever-growing mounds of garbage." The Washington Post. November 21, 2017. https://www.washingtonpost.com/world/africa/the-world-is-drowning-in-ever-growing-mounds-of-garbage/2017/11/21/cf22e4bd-17a4-473c-89f8-873d48f968cd_story.html?noredirect=on&utm_term=.e01968b46c20

² Ibid.

³ Ibid.

⁴ Howden, D. "Lagos: Inside the ultimate mega-city." The Independent. April 15, 2010. <https://www.independent.co.uk/news/world/africa/lagos-inside-the-ultimate-mega-city-1945246.html>

⁵ Ibid.

⁶ "The 'Informal Economy' Driving World Business." NPR. October 19, 2011. <https://www.npr.org/2011/10/26/141503411/the-informal-economy-driving-world-business>

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⁸ Cocks, T. "Nigeria's Lagos set to turn vast trash into scarce power." Reuters. October 11, 2013. <https://www.reuters.com/article/us-nigeria-rubbish-electricity/nigerias-lagos-set-to-turn-vast-trash-into-scarce-power-idUSBRE99A0E120131011>

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¹³ Akpodonor, G. "Long search for 'true solution' to decaying Nigerian stadia." The Guardian. May 13, 2017. <https://guardian.ng/saturday-magazine/long-search-for-true-solution-to-decaying-nigerian-stadia/>

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¹⁵ "LASG Begins Transformation of Olusosun Dumpsite." Lagos State. May 8, 2018. <https://lagosstate.gov.ng/blog/2018/05/08/lasg-begins-transformation-of-olusosun-dumpsite/>