

GRAPEVINE

ISSUE 68 / 2016

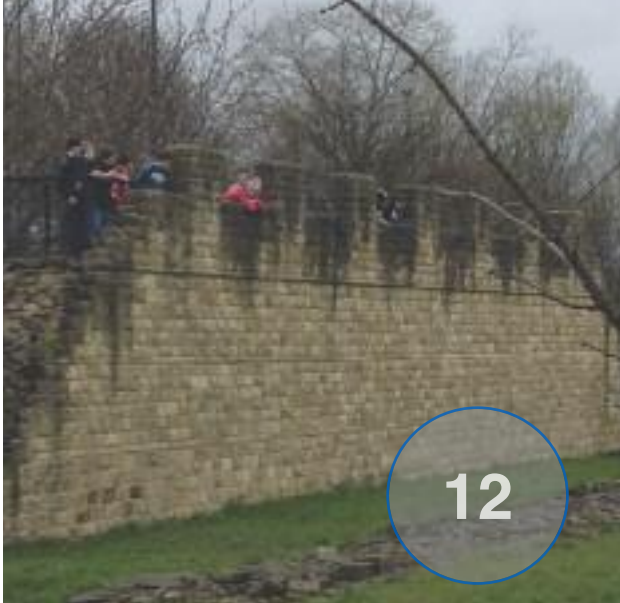


**Music &
Dance**

Classical Studies
Hadrian's Wall

MUN

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Check it out.



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Editorial

Lili Mae Boorman

Change, whether you welcome it or see it as a necessary evil, is perhaps the only constant we will experience in our own lives and as citizens of our ever-evolving communities, countries, continents and world.

Since we students, teachers, and all others that give function and life to our school, walked into the classrooms of St. Andrew's in late August of last year, we have seen over one million migrants cross oceans to flee war; a confirmation of liquid water on Mars; the legalisation of same-sex marriage in five countries; over one hundred terrorist attacks; Iran's formal abandoning of nuclear weapons; the death of two of the most innovative, eccentric and eminent musicians and artists; and the rise to political prominence and (potential) power of the creator of *The Apprentice*, among other things.

And if these seem to appear as an eclectic list of facts, it is because they are a simplified demonstration of the change that the world has undergone in every aspect of its existence in just seven months. Indeed, the only commonality of all of the aforementioned events is the monumental *change* that had been initiated by some and ended by others. However, it is change that has not been dictated, but change that has been both natural and premature, spontaneous and premeditated, celebrated and mourned, but all of which has arisen from the will of people.

Change, whether you welcome it or see it as a necessary evil, is perhaps the only constant we will experience in our own lives and as citizens of our ever-evolving communities, countries, continents and world.

Grapevine itself has undergone its own transformation this year: from school news, to academic journal to a satisfactory mix of the two, and we as students are likely to have felt the onslaught of time pushing us through the school, or, in the case of Fifth and Sixth Year students, the feeling of pushing us *out*.

Even Nietzsche, famous for the rigidity of his belief in inviolable ethical rules, seemed to imply that change is the essence of life in his sagacious warning: 'The snake which cannot cast its skin has to die. As well the minds which are prevented from changing their opinions; they cease to be mind.' However, this platitude touches on more than simply embracing the change that happens to you; it is an empowering encouragement to stimulate a change of self, in order to participate in a broader, more influential change *en masse*.

I hope that this issue of *Grapevine*, those of this past year and those in future, have and can be a platform upon which students' minds are given the freedom and medium with which to do the changing and exploring that Nietzsche's maxim implores us to. But despite my advocacy of embracing change and initiating it, I also wish for *Grapevine* to provide and stand as a unique encapsulation of the present and of our time in St. Andrew's, that can serve as a remembrance of the interests, values and ideas we have today, before they too undergo their process of change.

Lastly, I would like to thank Ms. Mockler and Mr. Hamill, without whom *Grapevine* and its articles would remain unshared ideas in our heads, and without whom we would not be afforded the privilege of having a school magazine.

The Cycle Against Suicide community is determined to let people in every corner of the island of Ireland know that **it's OK not to feel OK and it's absolutely OK to ask for help**. Together, shoulder to shoulder, we can break the cycle of suicide on the island of Ireland.

Winners

1st Runners Up
2nd Runners Up
3rd Runners Up
4th Runners Up
5th Runners Up
Last

6th Years
5th Years
2nd Years
1st Years
Staff
3rd Years
4th Years



Cycle Against Suicide is an initiative started by Irish entrepreneur, Jim Breen, as a result of his appearance on RTE's *The Secret Millionaire* programme. The main objective of the Cycle is to raise awareness of the considerable help and supports that are available for anyone battling depression, self-harm, at risk of suicide or those bereaved by suicide.

On May 5, students and staff competed to see which year group could cycle the greatest distance with an eight person team in two hours. The challenge was to build a 64 person team, each of whom would complete 15 minutes cycling.

A huge thank you to Flyefit Gyms. Brendan O'Hagan lent us ten state-of-the-art spin bikes. Expert Fitness delivered and collected them and did not charge a cent. Thank you, Molly Parsons!

Big thanks also due to Simon Filgas, Halford's, Belpark Triathlon Club and Triathlon Ireland for their great support.

Above all, thanks to all of you who took part, especially those fifth years who came in really early, second years who stayed late and the TY enterprise team, led by Patrick Quinn and Jess Smith who did Trojan work. Well done you!

Ms Devally



Third Year Marathon Raises € 2890



Blackrock Hospice improves the lives of those living with a life-limiting illness using palliative care. Not only do they care for the patient's physical needs but they also meet the emotional and spiritual needs of the patients and their families. Third Year students ran 42km in aid of this important charity.

Linguistics Olympiad Success



Richard Neville (Sixth Year) came third in the National Final and Ross Beatty (Second Year) came fourth in the junior section of the National Final of the All-Ireland Linguistics Olympiad 2016.

Second Year Fundraisers



Second Years raise €650 for Goal



Second Years raise €500 for Therapy Dogs

5IB Explore Irish History



Ms Carter's 5IB history class visited the Little Museum of Dublin and Collins' Barracks museum in April. They enjoyed the 1916 exhibitions in both museums and interactive soldiers and chief's exhibition in Collins' barracks.

Chemistry Spectroscopy Visit

"Spectroscopy in a Suitcase" visited SAC on Friday 22nd May. This is an initiative sponsored by the Royal Society of Chemistry and brings state of the art equipment into schools. Our students enjoyed having hands-on experience using the uv-vis and ir spectroscopy machines, allowing them to better understand the techniques described in their textbooks. They also had the opportunity to talk to postgraduate students about studying science at TCD.

THE WINE-DARK SEA LAUNCH



The launch of the seventeenth edition of *The Wine-Dark Sea* magazine took place on Thursday 12 April with almost 100 parents, students and staff at the College. The evening was a platform for the broad ranging literary, artistic and musical talent that the College has to offer. Readers and performers from across both Junior and Senior Schools demonstrated a wide range of creative writing and music skills.



Second Year student Yasmin Ryan received her award for her recent success at SciFest@college DIT Kevin Street. She was awarded first place in junior individual Biology and was awarded a special prize, the ISTA award, for her project on the Effect of CO₂ on pondweed.



Congratulations to Fifth Year Student **Yan Li** who was on the Irish Physics Team at European Union Science Olympiad in Estonia. The team came second and won the silver medal.

Second Years Raise Funds for Angelman



Second year students raised €500 in aid of Angelman Syndrome charity.

Literature Aloud Competition 2016



Ms Moran, Ms Devane, Ms Ann Fitzsimons, Mr Reidy, Mr Bohan and competitors

Literature Aloud is the annual competition which recognises and promotes the value of literature and highlights students' performance of poetry, drama and fiction. Students perform two pieces on the night: a poem, a short extract from a novel or short story or a short monologue from a play.

Our judges, Ruth Devane, Anne Fitzsimons and Paul Reidy, observe the pieces according to the following criteria: physical presence, voice and articulation and general understanding.

The competition this year took place on Tuesday, May 3rd in the Junior Hall. On the night, the following prizes were awarded:

- Junior Category Runner-Up: James Neville (Third Year)
- Junior Category Winner: Aleena Manoj (First Year)
- Senior Category Winner: Harry Deacon (Fourth Year)
- Overall Winner: Harry Deacon (Fourth Year)

Sports Day

2015-16





The Beauty of Quiet Places

Geography

Maryse Kluck

I miss Twente. There are no other places in nature that have its cosiness, simplicity and beauty.

"Have you ever seen the beauty of quiet places?" my Geography teacher asks.

My class? Probably not, I think.

They all like active places such as Dundrum Shopping Centre or Grafton Street. I do not mind the latter, but I positively do not know how one can survive in Dundrum Shopping Centre. All the noise - the background noise people say is music, the flashy shops - I simply cannot bear it.

I, being the most eager and perhaps annoying in this case, raise my hand. "Yes?" asks my teacher.

"Twente, the Netherlands," I say simply.

Nobody has ever heard of this remote place. Intrigued, my teacher looks it up.

On the board, an image is projected. It shows farms, cottages, beautiful woodlands; very simple, but very beautiful. Longing tears at my heart. I do not really feel homesick for my former country. But when I think of *Twente*, I do.

I focus on the image and sink into a daydream. My classroom fades away to a natural path of sand and grit, between a wild meadow and a forest.

The path slopes downwards towards a little brook with washed-over stepping stones on it.

The warm breeze breathes onto my face. My booted feet go *crunch, crunch*, on the grit as I lead myself, in a trance, towards the brook.

The water trickles over the pale, worn out stones. The sunlight dances on the pristine, rippling surface, making you see tiny pebbles underneath. The deepest part of the water just covers my hand.

I had once saved tadpoles here. The tadpoles were dying in the sun, because somebody had blocked the mouth of the brook. I unblocked it and placed the poor tadpoles that were roasting on the hot sand into the water. All of them revived and swam away.

I reflect on this as I hear the birds chirp and sing.

A memory of a daydream. How odd. This place is beautiful and quiet. There are no sounds except the bird's song and the stream's.

"Very nice," says a voice.

My teacher breaks my daydream and the meadows, birds, tadpoles and stream vanishes. I bury my face in my arms.

Later, after school, geography class and daydreaming, I lie on my back in the grass in the garden. Flowers nod about me, grass stalks channel the wind and whisper in my ears. Sunlight dances on my face like it does on water.

I miss Twente. There are no other parts of nature that have its cosiness, simplicity and beauty, all in one. Dalkey borders proud Killiney Hill. Dalkey is like an Avoca Garden, with its birds, flowers, and magnolia blossoms. It is cultivated,



but nature is allowed to play a role. Killiney is twisting and proudly faces the sea. It has shrubs and eucalyptus trees and it perches on cliffs. Killiney seems to me more a part of the sea than the land. Nature has more control there.

The Wicklow Mountains are indomitable. They were wild, rugged, and the power of nature is present everywhere. It *allows* people to live there, but barely.

I search and search, but Twente is none of these. In Twente, nature and humans do not have a fight for living space and control. It is pure harmony.

There is not much here that shares the same elements with Twente.

That is not bad. Change is always good. But if nothing here is the same, at least there's the sky. It is like Twente's sky.

I smile. I feel myself transported, again, to Twente, but without any longing.

PHOTOGRAPHY COMPETITION

1st
place
staff



Ms Lauren McEnery

2nd
place
staff



Ms Hannah Leggett

3rd
place
staff



Margaret Kenna

1st
place
student



James Walker

2nd
place
student



Cormac Campbell

Hadrian's Wall:

Classical Studies First and Second Year Tour

At half seven on the morning of the 14th of April a thirty-two-strong group of SAC students and four teachers stood in check in of Terminal 1 of Dublin Airport. Of the group of students twenty-four were from second year and eight from first, these students and their teachers were about to depart from Dublin to Newcastle and more specifically Hadrian's Wall.

Hadrian's Wall was built by the Roman Emperor Hadrian from C.E 122 onwards. The wall was built to separate the Romans from the Caledonian (Scottish) tribes. Parts of this great wall still stands in the British countryside.

Upon landing in Newcastle we were picked up from the airport by Mark our bus driver. We then headed to near Grey's monument in central Newcastle to get some lunch. We then departed for Segedunum. This fort was at the end of the wall and unsurprisingly the surrounding area is now called Wallsend. This fort was in use up until around C.E 400. A portion of the site has been excavated. Buildings which have been unearthed include the principia (headquarters), the praetorium (camp prefects house), the horrea (granaries) and a hospital. On the site there is also a reconstructed bath house. Unfortunately, this was closed when we visited. After exploring the museum and site we

crossed the road to get our first glimpse of the wall. Rather disappointingly it was a line of rocks in a ditch, but nonetheless we were impressed by what once would have stood. To help us visualize the wall a reconstruction has been built we all climbed up onto this reconstruction and imagined how the frontier soldiers must have felt.



After our visit to Segedunum we went to our hotel. Upon arriving we were assigned our rooms and released for the night. At seven, we all had dinner in the restaurant and then were given our curfew for the night - a quarter to eleven. Apart from some antics regarding windows the night was relatively uneventful. We awoke a half seven the next morning thanks to a wonderful wake-up call from reception. We then reconvened for our breakfast and left our hotel at nine for Vin-

dolanda, another fort.

Once we arrived at Vindolanda, we received a short talk from a volunteer there before being allowed to explore the wonderfully excavated Vicus (village) and fort. This site was settled before the construction of the wall and had four forts built on it. Very interestingly the village adjacent has also been excavated as I mentioned. This was very interesting as it tied in slightly with our earlier topic of Pompeii. We explored and took notes for around an hour. This fort, like most Roman forts, used the same layout and thus doesn't differ greatly from Segedunum. We then travelled to the Roman army museum and this museum is very special as it holds one of the only original plumes from an officer's helmet ever found. We are spent around an hour here looking around the museum. Also we got to experience a Latin lesson in the museum. We then went a few miles down the road to a place where we got the chance to walk a section of the wall. This was very eventful as it began to snow and lead to a lot of mud both in the ground and on us as many of us fell. We then changed before leaving for the airport to fly home to Ireland.

I am sure all on the trip would like to express our thanks to Ms Devally, Mr Flanagan, Mr Fairbairn and Mr Acres.



Prize - winners

*Thanks to:
Ms Edel Sludds
Ms Ciara Sawyer*

Junior Competitions

Piano: Natsuho Hamasumi
Voice: Ruben O'Mahony
Guitar: Ben Hickmott
Wind: Aaron Speers
Strings: Kirsty Kerrigan
Ensemble: Marcia Chadwick & Zoe Slater

Intermediate Competitions

Piano: Jean Nam
Voice: Grace Evans, Sean Wade
Wind: Alannah Rothwell
Strings: Helen Hudson, Molly Lambton
Ensemble: Helen Hudson & Jung In Kim

Senior Competitions

Piano: Ryan McGrath
Voice: Jessica Quinn, Peadar Davey
Guitar: Sam Laing
Wind: Sarah Kelly
Strings: Aoibhinn McDonald
Ensemble: Ciara Ryan, Sophie Carr & Sam Laing
Julie Gallagher, Claudia Aragonese
& Finlay McFadden
Composition: Robert Keating



Music & Dance Festival 2016



Ben Hickmott



Ryan McGrath



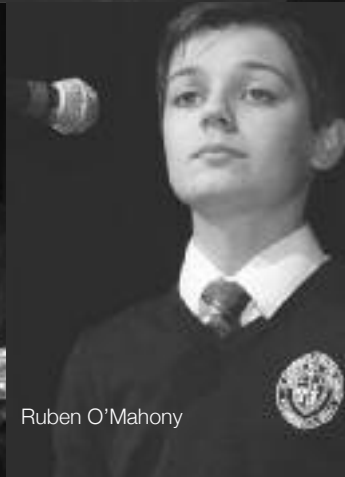
Aaron Speer



Sophie Carr



Sam Laing



Ruben O'Mahony



Alannah Rothwell



Kirsty Kerrigan



MUN: A YEAR IN REVIEW

Participating in Model United Nations has been without a doubt the highlight of my fifth year here in St. Andrew's College. Through practices and various conferences throughout the year, I gained self-confidence, debating and rhetoric skills and had the opportunity to discuss key global issues with students from around the world.

Royal Russell School International Model United Nations was the first of two international conferences attended by fourth, fifth and sixth year St. Andrew's students. It took place at Royal Russell School just outside Croydon, UK and lasted for four days. Students represented the school in a wide variety of committees, including the International Court of Justice (ICJ) program and Security Council. I myself represented Venezuela in Security Council - a committee I had never participated before. I arrived confident, but was soon surprised at the skill and knowledge my fellow debaters

possessed, as well as the intensity of debating with just seventeen others. However, after a few hours of feeling out of my depth, I realised that this was just another challenge that lay ahead. This is what MUN is all about - challenging yourself. In several committees we saw students at their very first conference make a speech in front of more than seventy people, a resolution by a Transition Year student debated and passed in the General Assembly and in ICJ students who had spent months preparing won their case by seventeen votes to two. Those fortunate enough to attend Royal Russell had a fantastic time, and I'd like to take this opportunity to thank the teachers who made it possible - Mr. Micallef, both Ms. Morans and Mr. Hehir.

There was also great success at the three Irish conferences attended by St. Andrew's each year (excluding our own), at Terenure, Rathdown and

Wesley College. It was at these smaller and more relaxed environments that students were able to hone their debating skills, and our students did not disappoint. Representing a variety of nations from France to Syria, we took in many awards, including individual Distinguished Delegates and Outstanding Delegation at Rathdown MUN. Three sixth years also got into a heated three-way debate in the General Assembly in Rathdown, which due to their advanced knowledge of international policy was impossibly hard to follow!

Overall, this year's Model United Nations has been a great experience, and I would highly recommend it to anyone within the college. My thanks to Mr. Hehir and all of the teachers that sacrificed weekends, evenings and large chunks of the Easter Holidays to make it all possible.

Kate Malone



This school year has brought some of the highest quality Model United Nations conferences to date. These conferences and trip were assuredly some of the most memorable aspects of my year. The second conference abroad that St. Andrew's delegates took part in was The Hague International Model United Nations. We flew to Schiphol airport, and from there made our way to the Max Brown hotel in the heart of Amsterdam. We were submerged in Dutch culture for the two days we spent there and visited many famous galleries, as well as having much free time to ourselves to shop, ice skate in the snow, or simply to rest to avoid the outbreak of the "Hague Plague". After our two amazing days in Amsterdam, it was time to take the train to the Hague, where we stayed in a hotel just five hundred metres from the conference centre. The following five days at the centre, when we attended our

debates in both committee and the General Assembly, were some of the most enjoyable days of my year. Each day we woke up early to prepare for lobbying, merging resolution or debates. While the days in the conference centre were long and filled with stimulating discussions on global issues, they were never lacking the element of fun or surprise. Throughout the five days we spent there, we met up with old friends, made new ones and most importantly we thoroughly enjoyed ourselves and deepened our understanding and knowledge of the issues we came to discuss.

St. Andrew's College MUN was another successful conference run by our students and for our students. Delegates came from all over the world to take part in our amazing conference which grows in size and improves in quality each year. The week passed quickly and ran

smoothly thanks to everyone working behind the scenes. Hundreds of resolutions were debated with those of the highest quality being passed into the General Assembly. Each and every delegate came together to produce the most comprehensive solutions to some of the most pressing issues in our time. It is amazing to see so many students from different religions, cultural and ethnic backgrounds coming together to help each other. SAIMUN is certainly the highlight of the year for St. Andrew's students and also for the students from schools across the world who make great efforts to be able to travel to Dublin each year.

Hilary McKenna Long





PTA Golf



The annual St Andrews College PTA Golf Classic was held on Friday 6 May in Elm Park.

This year the weather was kind to us and we had 16 teams participating. The golf was played in great spirit with John O'Brien and his team winning with an incredible score of 93 points! Our ex-Chairperson Fiona Coffey won the Ladies Longest Drive.

Many "non golfers" joined us for dinner and prize giving and it was great to see so many parents enjoying this most sociable evening.

Many thanks to our Transition Year students for their help throughout the day.



Well done to the Minor Boys Tennis Team who beat St Fintan's College 3-2 in the Minor Boys Division II Final on 23 May in Castleknock Tennis Club. Patrick Guest secured the crucial point winning the Number 1 singles match 7-5, 7-6, saving set points in both sets.

Congratulations to Adam Horsfield, Max Guilfoyle, William Dawson-Howe, Patrick Guest, Akshat Suri, Theo Kohlmann and the captain Sam Walker on a great victory.

CRICKET TEAM WINNERS



Congratulations to our Senior Boys' Cricket Team who won the Leinster Senior Cup for the third year in a row beating CUS at Merrion Cricket Club on 17 May. What an achievement for the players and their coaches!

Congratulations also to the Girls' Senior Cricket team who put on an outstanding performance to win the Leinster Senior Cup. The Girls' Senior XI Cricket Team met St Joseph's Secondary School on Monday 23 May where, for the fourth year in a row, they won.



St Andrew's had the privilege of being part of a study into the effects of concussion on the brain. A number of South Dublin rugby schools also took part. The results of the study will provide important evidence-based research into concussion that will benefit our players going forward.

Congratulations to Conor Grace (Class of 2000) who has been named as Co-Captain of the Ireland Senior Men's Basketball Squad to compete at the FIBA European Championships for small countries in Moldova in June. We wish them good luck.

Congratulations to Andrew Porter (Class of 2014) who was named UCD Rugby Player of the Year at the AGM and Prize Giving (Peter Swan silver salver). This is only the second time ever that a Prop was presented with the award. Andrew also received his Ad Astra Elite Scholarship.



Transition Year Golf Tournament



On a blustery day last Tuesday, 26 April, two teams from Transition Year played in an inter-schools golf tournament for TY students in Dun Laoghaire Golf Club. Ben Crowley, Mark Kilmartin and Max Tyrrell (members of Greystones GC) were the overall winners. Also playing representing St Andrew's were Reece Jordan, Emily Gordon and Emma Savage (members of Killiney GC). With conditions ranging from hail to sunshine all played well in difficult conditions.



Congratulations to James Meier who was placed second in the Leinster Track & Field Championships and therefore qualifies for the All Irelands Athletic Finals.



Ciara Blake (2T) dances with Irish National Youth Ballet

Second Year Student Ciara Blake is dancing in The Irish National Youth Ballet's summer performance entitled *A Midsummer Night's Dream* where she dances the lead role in Danse Macabre at the Samuel Beckett Theatre in Trinity College and the Civic Theatre in Tallaght. Ciara is a talented ballerina and is pictured here on stage last weekend.

TY Sponsored Walk



Twenty Transition Year Students and three staff members from St Andrew's College were joined by Transition Year Students from East Glendalough School on Friday 29 April for a 51km walk that started at 7am at St Andrew's and finished, twelve hours later, at 7pm in Wicklow. The walk followed the coast between Booterstown and Wicklow and proceeds raised through sponsorship went to The Irish Cancer Society. Well done to everyone who took part!



Maya Blair, Emma Forbes, Amelia Johnson and Robben Beatty competed at the National Aquatic Centre on Sunday 8 May and finished fifth in both the Free and Medley Relays. The standard was very high and the girls did themselves, and St Andrew's, proud. Well done girls!

Nootropics: A Step too Far?

Gavin McDaid

If we continue to allow people to alter their minds to enhance their performance, we may eventually get to a stage as a society where it's the social norm to take cognitive enhancers, and people may be pressured into taking them.

Sports create an unparalleled sense of competition in society. Players strive to outdo each other both on and off the field. At the top level athletes train for hours per day, stick to strict diets and do just about everything possible to optimize their performance. However, sometimes athletes cheat. Blood doping and steroid usage are rampant in highly competitive sports like cycling and weightlifting. There seems to be an assumed standard within all sports that achievement has to be from personal endeavour and not the byproduct of physical augmentation. But to what extent does this standard hold? Within all competitive fields, is physical augmentation viewed as an unfair advantage?

In the Silicon Valley region in America, many technology developers have started taking a range of drugs called Nootropics. Nootropics help you remember things more clearly, be more creative and improve your cognitive abilities in general. According to Jesper Nocher, chief executive of technology company 'Bitbucket', there is at least one person in every technology company who is taking Nootropics. The technology industry is very competitive in general, and it is no wonder that companies are capitalizing on something as advantageous as 'smart drugs'. But many healthcare profession-

als are skeptical. Can something like this be safe?

The truth is, nobody knows if Nootropics are safe or not. They simply have not been around long enough for any conclusive long term research. At the moment, there is no reason to believe that they have adverse side effects because none have been reported. However, healthcare professionals have outlined several main concerns with the drugs. In the long term, it's possible that Nootropics can cause things such as cognitive defects, brain chemistry alteration and loss of memory. Although the advantages of these drugs are undeniable, at the moment nobody knows if they are healthy or not.

As well as safety issues, there are a number of ethical issues associated with the Nootropics. As outlined by Vince Cakic from the University of Sidney, the use of drugs for enhancement rather than treatment is usually seen as unethical, and the Nootropics may give unfair advantages in fields such as academia. If we continue to allow people to alter their minds to enhance their performance, we may eventually get to a stage as a society where it's the social norm to take cognitive enhancers, and people may be pressured into taking them. In colleges around the

world, particularly in the US, it is becoming common to take Adderall as a study aid. Adderall is prescribed to people who suffer from ADHD, but college students can get it through friends or family and take it to stay up at night and concentrate on work. As well as this drug culture being very unethical, it's unsafe too. Studies by the FDA prove that Adderall increases the likelihood of cardiovascular disease. But still, students are encouraged to take the drug in order to keep up with the work load and do well in tests.

On the other hand, some might say that the fields of academia and technology are not like sports at all, and ethics should not apply to them in the same way. By their nature, sports are competitions between people, whereas technology companies are developing tools to enhance the human condition. As Corneliu Giurgea (the scientist who created the first Nootropic) said, "Man is not going to wait passively for millions of years before evolution offers him a better brain." If the Nootropics turn out to be harmless, should we prevent people from taking them? What if we make a Nootropic so powerful that it gives scientists the intelligence to find a cure for cancer? Cognitive stimulators like Nootropics are an issue that will always be controversial.

MARS ONE

Finola Crowley

SCIENCE

BECOME PART OF OUR MISSION

Although many organisations are already planning their trip to Mars, the Mars One mission is aiming to be the first.

“He’s probably just another person I’ll never see again.” For the team of candidates soon to be chosen to undergo the next Mars One mission to Mars, this is a reality. A reality which applies for every single person living here on earth. Some may call it a death mission, but others will see this as the next leap of mankind, an exploration like no other. This one-way trip will be their future, one, that few can imagine and only very few have the chance to experience. The team will start training in the start of 2017, until the launch in 2026.

The Mission

Although many organisations are already planning their trip to Mars, the Mars One mission is aiming to be the first. In 2020, a demonstration mission will be launched, along with a communication satellite, which will allow 24/7 communication between Earth and Mars. Two years later, a Rover will be launched along with a second satellite to find the best location for the settlement. By 2025, all six living units will be in place and connected to the life support unit, which will provide water, air and electricity. This life support system will extract the water from the icy Martian soil, which will be used in producing oxygen. After a six to eight month journey, the team of astronauts will finally step foot on Martian soil on 2027.

Could this really happen?

Of course, this all relies on successful launches, sufficient funding, and avoidance of all the hundreds of things that could go wrong, however, these plans, made by Mars One have quite a good chance of being met. In fact, we have the technology to make all the equipment needed for this mission and could easily be made within this time period. The real question at this stage is funding. NASA also claimed in their Authorization Act of 2010 that they intend to send humans to Mars in the 2030’s. Before they do that, they will be sending the Orion aircraft to explore an asteroid in the 2020s and the Mars 2020 Rover to examine Martian soil to prepare for the astronauts. To be honest, even if the Mars One mission is delayed, this is only one of many, many, similar missions, all with the goal of landing humans on Martian soil. So whether it be exactly in 2026 by Mars One, or a few years by NASA, or by one of the countless other astronomical organisations, this is bound to happen within our lifetime.

What’s going on at the moment?

A lot. There are countless satellites orbiting Mars and numerous Rovers roaming its landscape currently. In fact, since 1964, there have been five successful fly-bys, eleven successful orbiters, four successful landings, and four successful Rover landings. Some of these are still in

operation and a few are en route. All of these are essentially trying to find out the same thing- search for evidence of life. “Curiosity”, a Martian rover, is collecting samples of the soil to analyze them for organic compounds. “Its mission is to determine the planet’s ‘habitability’”.

Why?

Well, I think we’re all a bit curious to see whether life really can exist beyond our earth. In January 2015, the planet most suited to life - Kepler 438b - was discovered. It is almost identical to earth; however, the fact that it is 470 light years away, makes Mars our best bet for now anyways. Many years ago, Mars did in fact have conditions suitable for life... could we recreate this environment? If we can find traces of life then this could well be a possibility. We have been studying this planet for forty years, and the more we analyze it, the more possibilities arise. This mission is a one-way journey, and the thousands of astronomers who have applied are well informed of this. When we really start to think about astronomy and the universe, and the extent of it, it all becomes a bit too big for us to grasp. However, when we think of all the astronomical discoveries that have already been made, and the significant advances in technology that have allowed us to do so, anything seems possible.

St Andrew's Senior College Art



Sixth Year Art Students Successfully Win Degree Courses in Art and Design

NCAD
IADT (Fine Art)
IADT (Animation)
IADT (Visual Communication)
IADT (Film)
IADT (Design for screen/model making)
DIT (Photography)
DIT (Visual Communication)
DIT (Visual Merchandising)
University of Montreal (Visual Communication Design)

Sarah Fahey, Heather Webster
Annie Laing, Sarah Fahey
Annie Laing, Cassandra Siervogel
Sarah Fahey, Ali Conroy,
Molly Parsons, Cormac Campbell
Caoimhe O'Reilly, Rachel Reid
Eimear Bradley, Eva Carney Keaveny,
Berry Murphy, Ali Conroy, Sarah Fahey
Rachel Reid, Caoimhe O'Reilly
Laurence Hamel

THE TRINITY WALTON CLUB

Yasmin Ryan



Over this past year, I have had the privilege of being an Alpha in the Trinity Walton Club for STEM (science, technology, engineering and maths). During the summer of 2015, after I had completed first year, I heard from a friend about this new science club for second year students. This immediately caught my attention due to my passion for anything remotely related to science. So I went on the website and saw that to get in, I had to fill in an application and sit an exam in the college. I spent the entire summer writing and editing my application to perfection.

When classes began again in September, I sat the hour-long exam. The odour of excitement and nervousness lingered in the air as we entered the auditorium. Usually when you take any exam, you have some idea what will be on it. However, we didn't. When we turned the first page of the booklet, we were seeing it for the first time. The next hour was completely silent. The only faint sound in the air was of the constant clicking of calculator buttons. The exam was mostly based on fairly basic maths, mostly from the second year course that we had not done yet. Still today, I can remember one unique question that caught my attention in that exam: "How many apples

could fill the auditorium you are sitting in now?". And for the first time in that hour, I glanced upward and gazed around the room. Many people responded with guesses on how many could fit or the simple answer "one big apple". The answer to that question was not to give them a random approximation, but how to do the question. This is called a Fermi problem and can only be solved by dividing the volume of the room by the volume of the object.

Happily, I was accepted later on into the club and began to go every Saturday afternoon to Trinity College. When I arrived on my first day I was given a warm welcome along with the other students. We are all called Alphas, named after the particles in the project of Ernest Walton, the first Irishman to win a Nobel prize in physics for 'splitting the atom'. There are three groups that we are separated into: alpha 1, 2 and 3. Between the three alpha groups we have a league. We gain points from challenge sheets or for work in our projects.

Every week there are three classes for every alpha group: physics, math and technology and engineering. Although, we may be doing subjects that can be learnt in school, it is completely differ-

ent. In the club we don't learn from a textbook and follow a syllabus, it's a new form of learning. We look into why things work like they do and why they are that way.

In my time in the club I have learned so much. My skills in maths have improved in school, as well as my overall understanding of the subject. It has also been a great advantage to be able to have already learned topics in the club before I do them in school. Before, I didn't have any knowledge in technology or engineering. Now I can build catapults, bridges and even our own inventions. I have learned how to code, how the inside of a car or a computer works and even calculus!

Overall, my experience in the club has been better than I could ever imagine and I would recommend it to any students who, like me, have a true interest in how the things around us work and who always keep wondering why.

THE MATHEMATICS OF BEAUTY

You may think that maths and beauty have nothing to do with each other. However, the truth is that beauty is nothing more than maths, it is made of perfect ratios and proportions. This can be shown by Leonardo Da Vinci's 'Vetruvian Man'. His drawing emphasises proportion and is a perfect example of something called the golden ratio. This ratio is shown by calculating: (foot to navel):(navel to head) The golden ratio is based on the Fibonacci sequence, where every number in the sequence is the result of adding the 2 numbers before it. When the numbers from the sequence are squared, a nice spiral is created. The sequence is like so: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34...

A mask of the human face was created based on the golden ratio. The proportions of the length of the nose, the position of the eyes and the length of the chin, all conform to some aspect of the ratio and when placed on a beautiful person's face, it fits perfectly! If you find the ratio of all the numbers of the Fibonacci sequence, the result is "phi", This is an irrational number that never ends. $\phi = 89 = 1.6180339887... 55$

Architects used this ratio during history to create grand buildings. An example of a building like this is the Parthenon in Greece. We can also see the golden ratio in nature, in things such as sunflowers or pinecones. These are all ways to hide the Fibonacci sequence enclosed in their beauty.

Stuart Garrett: Class of 2007

ALUMNI



My name is Stu Garrett and I left St. Andrew's College in 2007. I did very little in the first three years of school apart from play hockey and spend my time in and out of detention! In Transition Year I became involved in a new initiative called the 'St Andrew's College Uganda Project' established by Mr Hickmott and Mr Micallef. We travelled to Uganda to visit and support an orphanage, secondary school and rural hospital. After this trip I decided that I needed to strive in life to make the most of the opportunities on offer.

In Fifth Year I travelled to Zambia for two weeks with 'Habitat for Humanity' with the support of Ms Jenkinson and Mr Gill to construct a house in a rural village. Whilst the outcome was small (and Ms Jenkinson only just survived the experience!) I saw how a small group could collaborate to achieve a lot.

I left school in 2007 and secured a place on the BSc Hons Physiotherapy course in UCD. I did not know it at the time but St Andrew's had given me the desire to contribute to the lives of others at home in Ireland and overseas. In the summer of 2008 I travelled with the charity UCD Volunteers Overseas (UCDVO) and a team of thirty Irish student volunteers to build nine houses and co-ordinate summer camps in Haiti for seven weeks.

In my second year of college I travelled to Nicaragua, the second poorest country in the western hemisphere, to work on an after-school programme for disadvantaged children, to renovate a healthcare centre and construct a

basketball court. In 3rd Year I returned to Kisiizi Hospital (www.kisiizihospital.org.ug) in Uganda. It was great to be back, this time slightly older and a little wiser. I soon saw the benefit of the work being carried out and vowed that I would return.

'If you want to go fast go alone, if you want to go far go together...'

In 2011 I completed the BSc Hons in Physiotherapy at UCD with first class honours and awards for excellence in clinical practice. I attribute these achievements to my experience working overseas and to all the people I encountered along the way. For this, I cannot thank St. Andrew's enough. Post-graduation I worked in Delhi as a Physiotherapist with another UCDVO team for four weeks. I then travelled back to Uganda to work as a Physiotherapist at Kisiizi Hospital (arranged and partly-funded by the St Andrew's Uganda TY Project). Whilst there I realised that I missed working with the support of a team and I returned home after four months.

In 2012 I arranged for a Physiotherapist and three UCD Physiotherapy students to travel to Kisiizi Hospital for two months. I led another team in 2013 with Alice Waugh, a physiotherapist from Wesley College. Since then, three further projects based on the Uganda model have been added to the UCDVO programme. In 2014, we worked to develop the Uganda project into a multidisciplinary team of students.

As a consequence, three physiotherapists, two medical students and three nursing students travelled to Uganda with UCDVO. A similar team was brought together for 2015 and an engineering student was added.

I now work as a Senior Physiotherapist in the Cardiothoracic Service at St James' Hospital.

With my job in Ireland's largest teaching hospital I realised there was scope and potential for a professional group of skilled individuals to travel and volunteer overseas. This year, together with Rosie Plunkett, a student in my year in St Andrew's College (who also travelled to Uganda in TY) and now a doctor in St James's Hospital and Mark McGowan, a Physiotherapist in St. James's Hospital, I founded CHEEERS 'Community Healthcare Empowering Education Experience Relationships and Support' (www.facebook.com/CHEEERS2015) and brought a team to Uganda in April 2015 to volunteer for two weeks.

During our time there we worked closely with local staff to assist in developing skills and services. CHEEERS was also able to fund infrastructure work enabling a wheelchair ramp to be constructed to connect the rehabilitation department to the rest of the hospital. A teacher is now being funded to undertake special needs training and funding has been provided to train a Psychiatric Clinical Liaison Officer. This professional project has been a great success. CHEEERS hopes to continue its work to provide opportunities.

It will be a pleasure to support others around the world who have not been as fortunate as ourselves and who did not have the privilege of attending St Andrew's!

We look forward to seeing you there!



Uganda trip 2005 with Stu Garrett far right



Stu with UCD Volunteer Overseas (back left and below centre)



A young person in a dark school uniform is holding up a white sign with the word 'Rwanda' written in large, bold, black letters. They are holding a white marker in their hand. In the background, another student is holding a sign that partially says 'Australia'. The scene appears to be a classroom or assembly.

Rwanda

Grapevine is a St Andrew's College Student Publication.
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