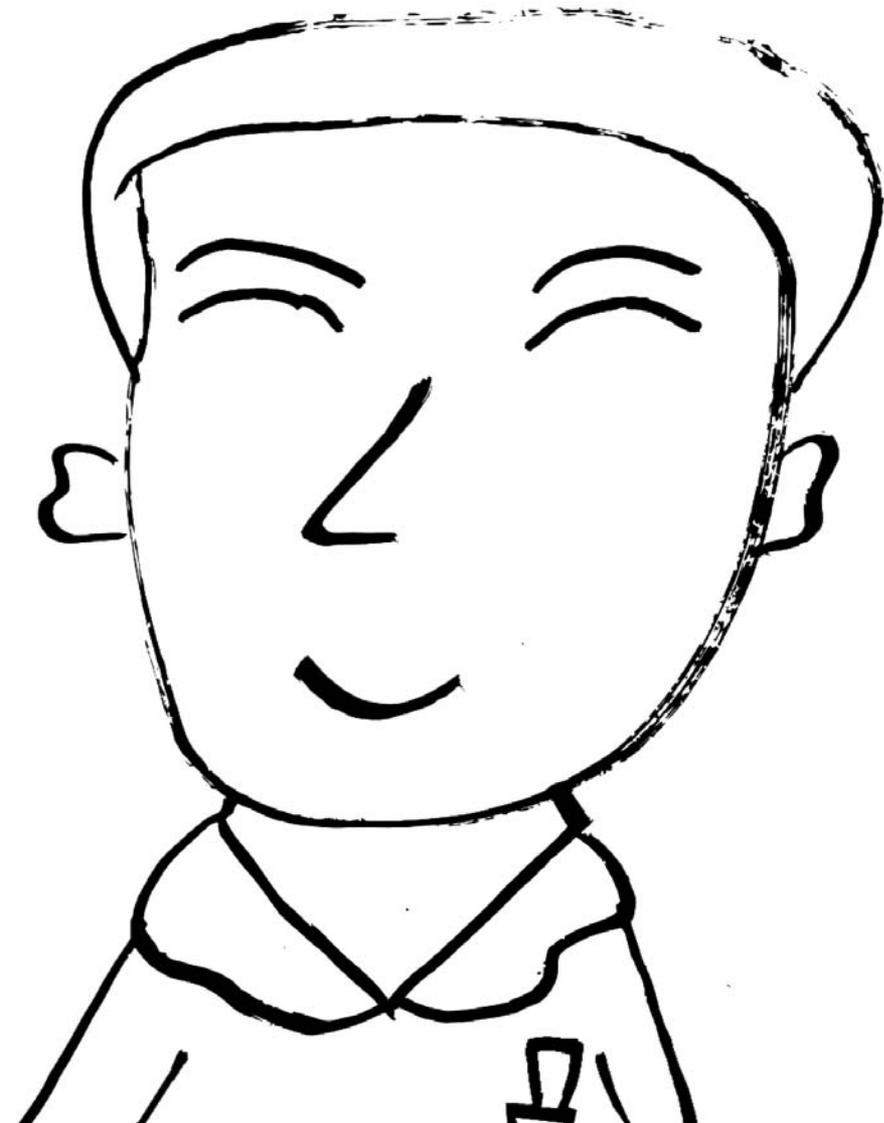


I want to be an architect

Dedicated to Aya Waterhouse-Cifuentes

For those who dream
and then want to
build those dreams.

Alberto Campo Baeza



I Want to Be an Architect

By Alberto Campo Baeza

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English translation by

Penelope Eades

All black and white drawings are courtesy of Amag and drawn by Andrea Arruti. Color illustration drawn by Aya Waterhouse-Cifuentes.



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GOING UP AND DOWN STAIRS

Architecture is like going up and down stairs.

Have you ever gone upstairs two steps at a time? I'm sure you have. I also still go up two steps at a time even on the metro escalators.

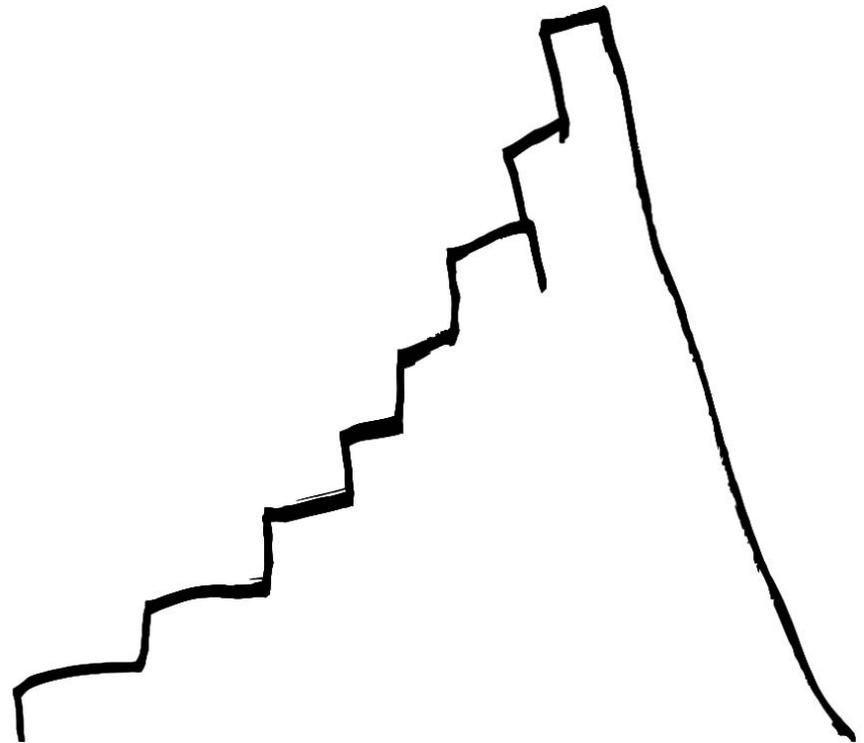
Have you ever come downstairs two steps at a time? Of course not. Not only is it impossible, but also very, very dangerous. I never even dreamt of doing it, not even for fun.

Well, it's just the same with architecture.

You can climb the stairs two by two. You can study diligently and learn many things in much less time. By working and studying hard you can finish a degree in architecture in the 5 years as planned.

You can't go downstairs two steps at a time, nor do you have to. You don't have to make plans or build projects with undue haste. You have to work at least twice as hard, and spend twice the time to design and build something that is for life. Just like honey being poured from a jar, it has to be done calmly and at just the right speed. Slowly and carefully, as an old Spanish saying goes, doing things well is more important than actually doing them.

Can you see now why architecture is like going up and down stairs? Life is like that too.



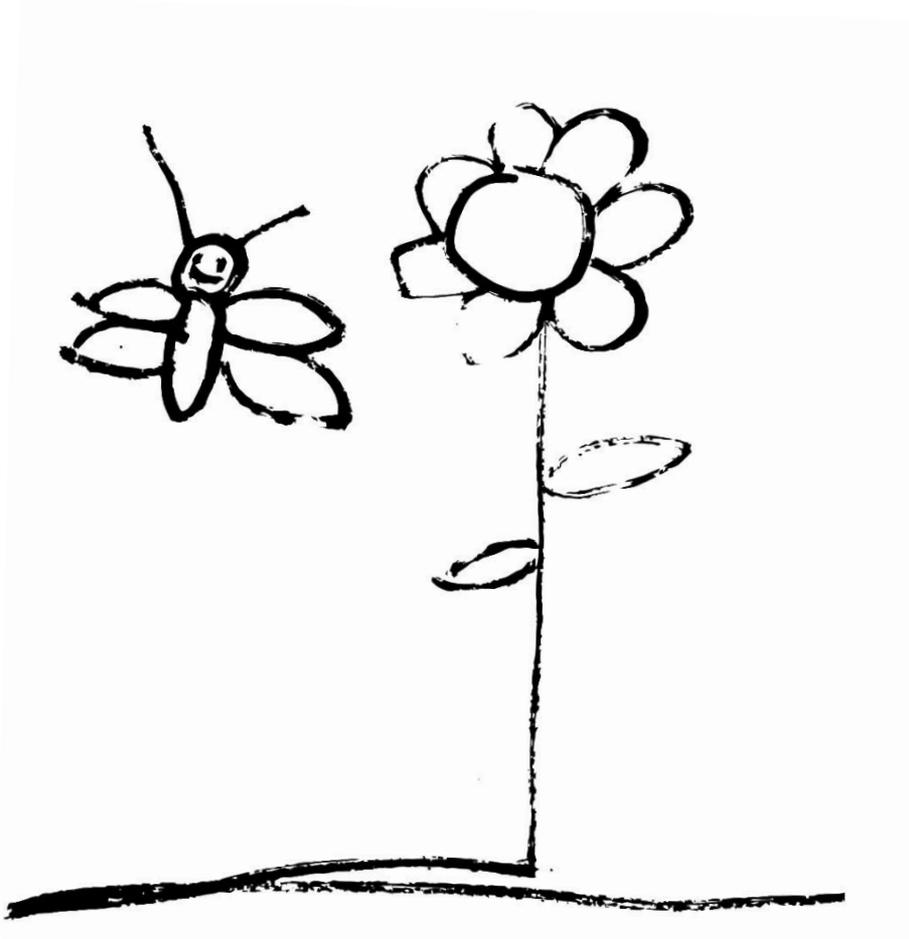
TO A FUTURE STUDENT OF ARCHITECTURE

The aim of this book is not really about encouraging you to study Architecture, which of course I will try to do if you need convincing, nor is it designed to overload you with information that could put you off altogether. I just want to tell you in the simplest possible way: *what* it is to be an architect, *why* it's worth it, which it is. And *how* to go about it.

And I'd like to tell you in the simplest way possible as I don't want this book to be boring.

*"To see a world in a grain of sand,
And a heaven in a wild flower.
Hold infinity in the palm of your hand,
And Eternity in an hour."*

This verse by the poet William Blake, which I repeat to my students every year when term begins, sums up pretty well what some of us are trying to do with our Architecture: building dreams. This, in my view is what everybody who wants to be an architect should aim for. To dream and make other people dream. To make buildings that not only perfectly fulfil their purpose, being well built, and very beautiful, but are also able to make people dream, able to make the people who live in them happy.



WHAT does being an architect mean

A dream

Lots of people wonder what is an architect, and what it is that an architect does? And they might well think that being an architect is something very basic, that an architect just draws four lines, and not a lot more.

Some people believe that an architect is an *artist* who draws these four lines on the spur of the moment in a flourish of artistic genius, especially if his or her buildings are unusual.

Others believe that an architect is a *technician* who has to know a lot about the techniques in building houses, especially if they are big and tall.

And others consider that an architect, and especially if he or she teaches or writes, is someone who can *explain* buildings with words that are unintelligible to everybody else.

So now I'm going to tell you as simply as I can what an architect is and does, which is all of this and a little more besides.

An architect is a *creator*.

An architect is a *thinker*, someone who *creates* buildings in his/her imagination.

An architect is a *builder*, someone who *builds* ideas.

Someone who *creates*.

Someone who *thinks up* things that can be built.

Someone who *builds* something that is well thought out.

A *dreamer*.

An *artist*.

A *technician*.

Not a composer of forms.

Not a simple builder of materials.

Not someone frivolous and haphazard.

Like a *doctor*, who diagnoses wisely and without haste.

Like a *chef*, who combines ingredients in an informed way.

Like a *poet*, who places words in such a way that they can thrill us.

It is the most wonderful career in the world: creating, almost like God. Arranging the most simple materials in such a way that, apart from doing what they are supposed to do, they can also be spaces capable of thrilling us.

When I correct my students' projects, after careful analysis I try to pick out the positive aspects to be worked on and the errors to be corrected. And I often ask myself whether or not they are architects. Because "being an architect" requires strength of character. It's rather like "being a doctor": either you are or you are not. Maybe that's why these two degrees, medicine and architecture, have so much in common, because they are vocational. Maybe that's also why the two degrees are longer and need greater maturity. Something that those who make our education laws seem to be unable to understand.

And to be a good architect you don't need to have a kind of neurotic obsession with seeing buildings everywhere—of which there are a limited number of very good examples, and rather bad ones in abundance—but all you need to grasp and hold onto is the concept of space and light.

And having that sense of space means being able both to control a simple house, build a large office block or correctly give order to a territory. Order is of key concern for an architect. An architect always establishes the order of space.

And having a sense of light means bringing it to a place, or rather, placing architecture before light in such a way that the house or the office block, or the city are filled with the beauty that appears when architecture is enhanced by light, something the American writer Henry James once so perfectly described when he wrote about the Pantheon in Rome:

"The building awoke every morning to the call of the sunlight that came to visit it every single day."

And if you are nearing the end of your secondary school education and preparing for university entrance examinations you will need to get your act together because the entrance requirements for Architecture are very high. However, as I have said again and again, to be an architect is well worth the effort and much, much more.

To be an architect means being capable of transforming a house into a dream.

Putting the materials together to make a building in such a way that it results in a marvellous space.

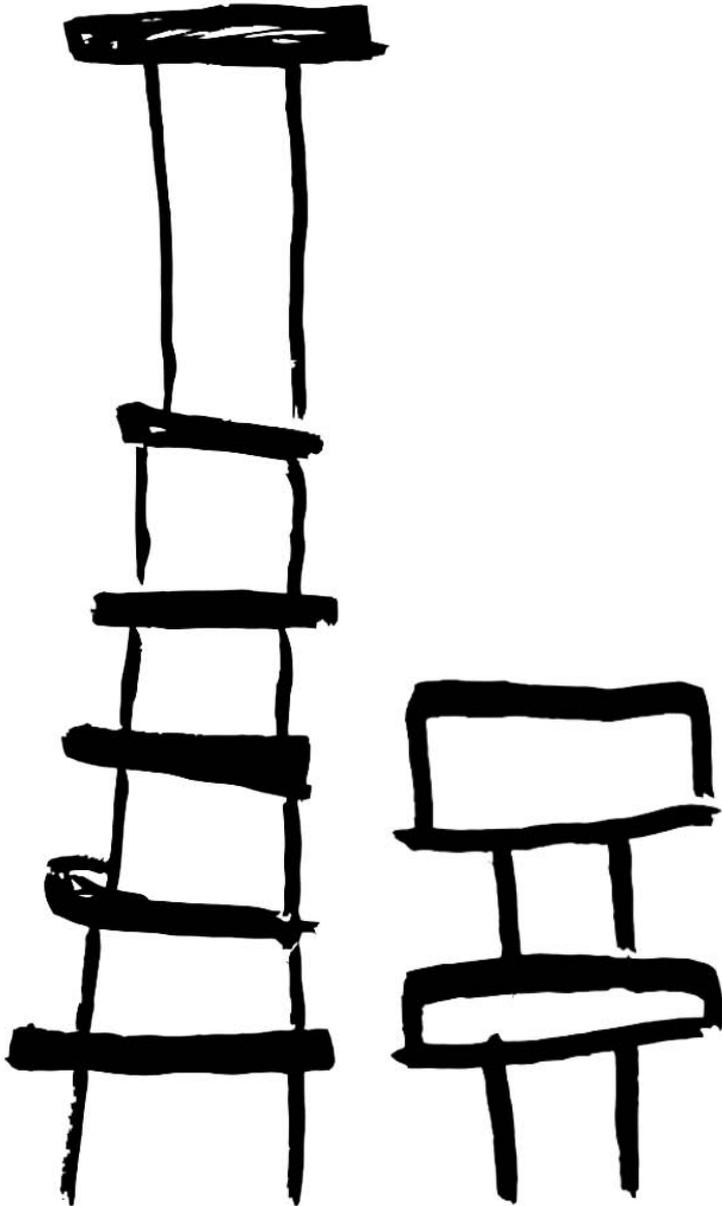
And at the same time being capable of transforming a dream into a house. A house you are happy to live in. And so what an architect does is to build ideas, dreams, to materialise ideas. Making dreams come true.

To put it another way, it's rather like what a poet does with poetry. With the same words one can create a beautiful poem or a load of rubbish. With the very same words. This is also true in Architecture: with the same materials one can build an uninteresting piece of architecture, or, a stunning building that can really stop us in our tracks. That's just what I want for those of you who, having read this book, decide to become architects.



HOW to study Architecture

Effort



In your pre-university studies you tend to focus better and more on the subjects you like best. That's logical. Well the same is true for university. Design projects form the core of the undergraduate degree course in architecture. And I strongly advise you to concentrate mainly on *projects*.

Projects first and foremost, followed by *projects* and more *projects*. What else is a Professor of *design projects* going to tell you?

I cannot stress it strongly enough: Architectural design projects are the very heart of the degree and that means they will take up most of your time and will be the most enjoyable modules. As it is not an exact science it is not easy to measure the time or the effort you need to give to each design project from its genesis through maturity to development.

The design projects module is not a formal subject either. Each teacher has his or her own methods. At the Madrid School, for example, the programmes and requirements set out by each professor are quite different. I make my students work harder than the others and then, at the end, I try to give them the best possible marks. Others do things differently. Although, of course, there is a lot of common ground.

You should also be prepared, if it comes to the push, to park all your other subjects and focus on projects. It is such a vital element.

I would also like to emphasise the importance of *structures*. Not so much, or should I say, not only how they are calculated but how they are

conceived and resolved (there is a story about an infamous professor whose wife did the calculations for his structures. Not being an architect, she did them on her kitchen table in a completely mechanical way). *Structures* are a delightful and most interesting subject which is at the heart of Architecture. The Madrid School has a group of outstanding professors of structural design.

I often stress how structure not only controls the transmission of gravitational loads but also, and most importantly, establishes the order of space as does the skeleton in the human body. To give you an example: Halle Berry, apart from being gorgeous, which she is, and having a stunning body, which she has, has a really good skeleton, a really good carrying structure.

Students should also pay special attention to the study of *history*, in all its stages and aspects. They will be well aware that the study of classical Architecture does not mean following its outmoded forms, which would be an anachronism, but understanding the special mechanisms used in their making, many of which are still valid today. Mankind, at the centre of Architecture, is still essentially the same in his relationship with space, despite all the extraordinary changes.

The control of measurements, proportions and scale are issues that remain utterly valid to this day.

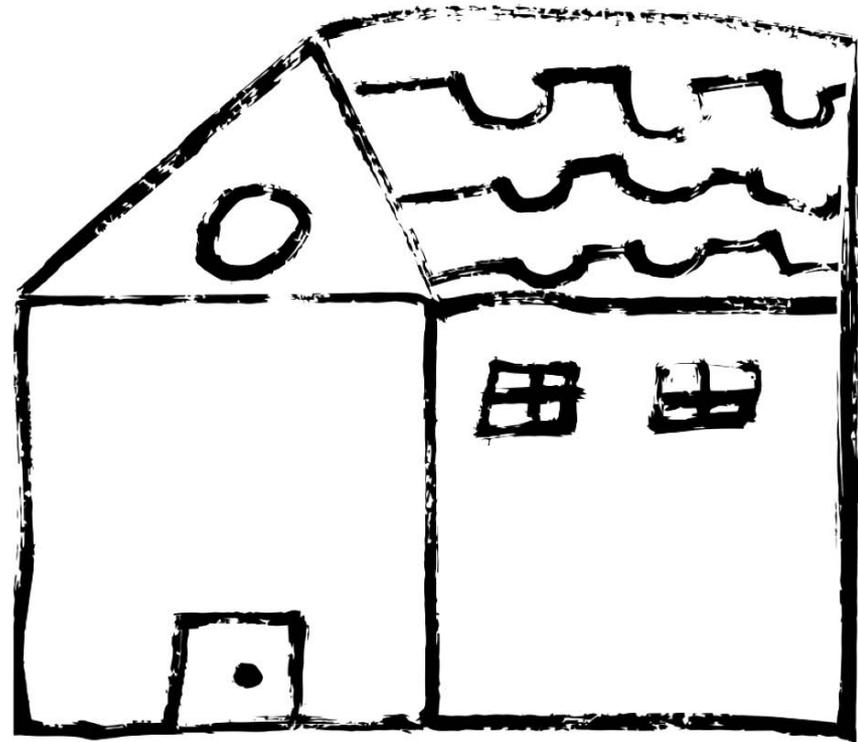
And *construction*. The question of knowing how to articulate, arrange and combine materials in order to build a worthwhile work of Architecture and not just a mere construction.

Understanding each material in its deepest sense, being able to interpret the architecture we make and realising how new materials have been capable of revolutionising Architecture.

And I could talk about all the other subjects in similar vein...

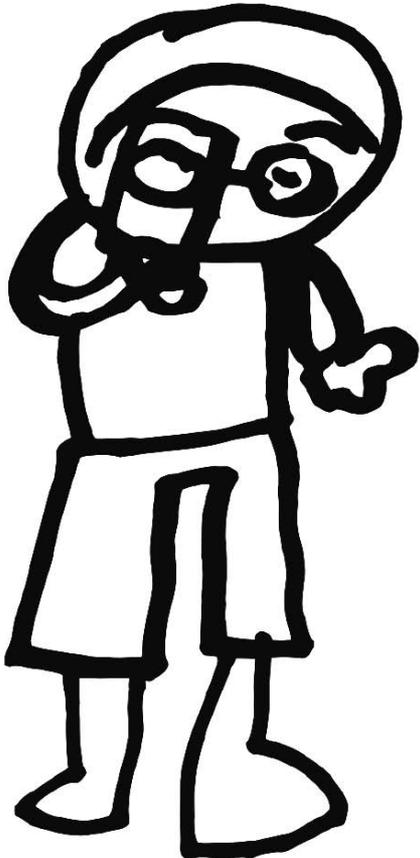
However before I move on, I must refer here to the *final year project* which is the necessary final element before finishing one's degree in Architecture. It is a project that is almost real in that all the issues have to be fully studied and resolved. It is a means and not an end. There are students, including some of the very best, who find themselves overcome with stagefright and take far longer than necessary in finishing their final-year project. Or they give up on it. Some believe they have to do it so well that, after spending long hours on it, can never bring themselves to finish it off. Others because they plan to work in places where the degree is not a requirement. My advice is to finish it as soon as possible and however you can. It is the key that opens and closes the door to a building: the Architectural degree to which they have given so many years.

And after the degree, the *doctoral thesis*.



BEFORE starting, some top tips

On using your time wisely



What sort of preparations can a future student of architecture make in the years prior to starting?

The answer is rather like what you have to do with a newborn plant that needs to be cared for. Here are some tips on things to do.

Draw.

Draw everything. Keep a pocket notebook and a pencil or a fine ballpoint to draw everything you think can help you as an architect.

From buildings or squares you like to everything on your desktop.

Or passersby, or your other hand, the one you don't draw with.

Someone suggested drawing with your left hand. And try to make your drawings analytic and expressive. See, observe, draw. And if you like painting, paint.

Take photographs.

Photographs of everything. And be analytical too, just like with your drawings: nowadays digital cameras are quite affordable and we no longer have the bother of expensive, tiresomely slow printing, so get yourself a small camera and use it. Play around with it and enjoy the results. You will start to understand the importance of light in the perception of space. See, look, photograph.

Think.

Analyse everything. Think over everything you see that you think is related to architecture, space and light. Try to work out the reasons why such and such a building does or doesn't appeal to you, not just whether you like or dislike it. You will surprise yourself. Architecture is amazingly logical.

Write.

Jot down everything. Write down what goes through your mind. It's the best way to complete the process of drawing, taking photographs and thinking. And try also to relate your reasoning to what you have learnt in history of art classes, or philosophy or literature. Writing forces you to reason and to organise your reasons. I advise you to keep another notebook, not your drawing book, for writing all this down. And if you manage to get something published that you have written, even if it's only in the school magazine, this will encourage you and boost your morale. Try to be very analytical and clear in what you write. Try to keep your writing orderly and clearly understandable. Write poetry too, it will help you to fine-tune your ideas.

And read.

Read lots and enjoy what you read. Not only about Architecture but about everything you like and that interests you. Especially poetry.

There is a marvellous writer and philosopher, George Steiner, whose autobiography *Errata* I have recommended in the short bibliography I have included further on in the book. In it he tells how when he was small his father gave him lots of books to read, one by one. When he was reading, if there was a passage that he didn't quite understand, he had to read it aloud. If after that he still didn't understand, he had to write it down. In the end there wasn't a text that he didn't understand. A delightfully simple, straightforward and educational exercise: try using it in Architecture and in life.



APTITUDES

Do I have the makings of an architect

Training

Make a house. Draw your ideal house. It will be quite thrilling—it was for me—to design your very first house, with your very own drawings. Draw it simply but give it all the enthusiasm you possibly can. Keep it and look at it in a few years' time.

Make a model of that house. With paperboard or with cardboard and wood. Or with whatever you like. You'll be amazed at how good you are at building a three-dimensional space that you designed all on your own. And let your imagination and your eyes take you inside it. And let the sun shine on it.

Take photos of the model in sunlight and in various positions. Start learning how light is capable of changing the quality of the space.

Closely study and slowly and critically analyse the previous documents. Learn to look for and find reasons for building.

Then draw the building you like most in your city or town. From outside. Try to be both analytical while at the same time developing your capacity for synthesis.

Of all the places you know, draw the interior that you like most. A central foyer or a patio could be your chosen space.

Take photographs of the 10 buildings you like the most. Three photographs of each. Try to do a comparative analysis between them.

Write. Create a text that expresses the reasoning that led you to make these choices.

From the most recent novels you have read select passages in which architectural themes are described in one way or another. Read them again with a fresh pair of eyes.

Read lots of poetry. And enjoy it. And understand how close it is to architecture, translating ideas with words placed in such a way that they make us dream. And analyse what is the internal order of these words.

Cry with Ulysses when you read the Iliad and the Odyssey. And laugh with Don Quijote of La Mancha. It's a great exercise. Reading good literature is a great way of becoming a good architect.



OPPORTUNITIES with a degree in Architecture

Future

The world is at your feet when you get a degree in Architecture. From setting up an American-style restaurant (I know a very good restaurant in Madrid run by a very good architect) to becoming a film director (I know a very good director who is an architect, and his very pretty niece, who stars in his film). What I want you to understand is that this degree gives you a very rounded education at every level, so that it is useful for many other professional fields.

What I want to give you are various possibilities to start you thinking about what you can do when you finish your degree.

Work with a good architect. Even if you don't know him or her beforehand. To learn about building dreams. And if his/her architecture appeals to you, even better. It's worth it even if you earn less. You have to be unassuming and unambitious in the short-term and you have to look at the positive side. And set yourself a time-limit. A few years maximum.

Start working with a famous architect. Famous is not the same as good. Not too difficult, but they usually don't pay at all, or only very little. You will learn about life, what and how they do what they do. And you will also learn how to connect with society and that the old Spanish saying "what's right and proper sells well" no longer holds true. It belongs to the past. And these architects know very well how to connect.

Start working with other colleagues of your own age. It's the most popular choice and the best way to go forward. My advice is to opt for an uneven number so that you don't end up quarrelling. It's what I did. You don't necessarily have to do everything together. It's good to hold onto some personal responsibility and to your own name. Avoid using acronyms, because quite honestly there are far too many out there. And they are so difficult to remember, even though some think that initials are cool.

Start working on your own. This is a route more generally chosen by those with their own financial resources. Or by the more heroic. If you can manage it, it's not a bad option. However some find that they can't handle it and can go crazy. Mind you, it can also teach you a lot. As an initial step I wouldn't advise it in most cases. However it may well be a logical route after a reasonable period of time.

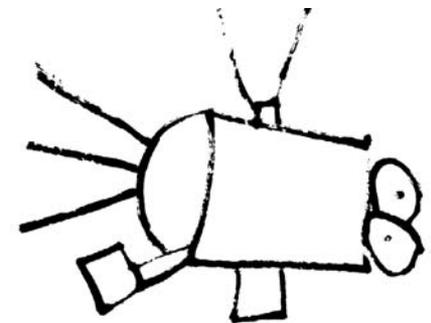
Enter competitions. This is an eternal option for young people and a good solution if you know how to pick the one you have a chance of winning. And put all your effort into it. And win. I still enter competitions just like when I first started.

Continue to study. Doctorate, postgraduate or master degree courses. They also have the advantage of being compatible with starting to work. I usually recommend this option to my best students with academic abilities. But it's an option that is also recommendable for everyone. So as to continue thinking.

Get into teaching. If you like it and you have a talent for it, it's a wonderful career. And if it's compatible with building then it's an ideal situation. The two jobs are mutually beneficial. It's advisable to follow a doctorate course. And then a doctoral thesis, which is a wonderful exercise that will keep your ideas, apart from being an indispensable qualification for an academic life.

State examinations to become a civil servant. This is a very respectable option. A good municipal architect can do excellent work. My grandfather was one, and a very good one at that. A fine architect in almost any official position can do very good work. Especially if he or she is honourable, which almost all of them are.

The fields offering work opportunities to graduates are many. The most specific one is the construction sector, ranging from small houses to large buildings. Restoration offers a wide panorama thanks to the vast artistic heritage we have in this country. In the field of urbanism the work that remains to be done is huge and it would be welcome if there were good architects involved in the task. And there are many more.



WHERE you can study to become an architect

Schools

SCHOOL

If a friend were to ask me where his son or daughter should study Architecture my reply would always be: at the UPM's Madrid Higher Technical School of Architecture, ETSAM. It also happens to be my School, and a State School.

On a recent trip to New York at the very prestigious Columbia University where he is professor, I attended a lecture given by Kenneth Frampton who, smiling broadly at me, proclaimed publicly that he considered the Madrid School to be the best in the world. I myself was fortunate enough to study at the Madrid School of Architecture and to have as my very first professor Alejandro de la Sota, who fascinated me.

Later I studied under Rafael Moneo, who had just recently been appointed and after that under Julio Cano Lasso, who was such a wise man. Then, on finishing, on the advice of Sota, I was away from the school for 5 years. I returned as final-year project tutor in 1975 with Sáenz de Oiza and was later assistant to Vázquez de Castro y de Carvajal, under whom I did my doctoral thesis, after which I was appointed Professor of Design Projects more than 25 years ago. And I feel proud of my school.

However if you are in Madrid and you just miss the required entrance grade, there is also the splendid CEU, the San Pablo University School of Architecture, top of the list of private universities in Madrid. Another option, although not an easy one, is the possibility of being admitted to the ETSAM after doing your first year in a private school and undergoing a

difficult test with limited places. And there are new Schools of Architecture cropping up in Madrid and all over Spain. Public and private. Too many.

In Spain there are numerous state schools: Madrid, Barcelona, el Vallés, Seville, Valencia, La Coruña, Valladolid, San Sebastian, Alicante and Malaga. And more recently: Alcalá, Toledo, Cartagena. And various private schools: Navarre and the CEU being the oldest and most prestigious.

Alternatively if you wish to study architecture abroad, then it is advisable you do so at a School within the European Union so that your degree can be convalidated in Spain.

Paris and Montpellier in France, Rome, Milan and Naples in Italy or Lisbon and Oporto in Portugal, are all very good Schools of Architecture.

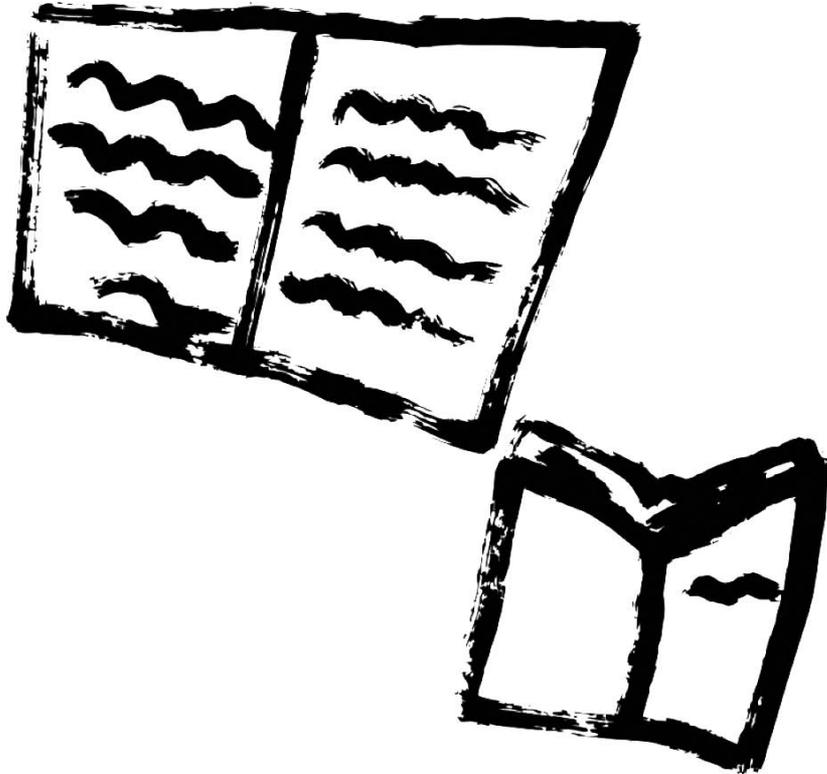
Other excellent schools are the ETH in Zurich and the EPFL in Lausanne in Switzerland, at both of which I was professor for quite some time.

And if when you finish your degree you want to continue studying, Penn in Philadelphia, Columbia University and Cooper Union in New York, Harvard in Boston and the CUA in Washington are among the most prestigious centres for postgraduate studies. I have had the good fortune to have been in some of them, as professor, as student and as guest speaker and I found them all to be splendid.

BOOK LIST some basic books worth reading

Culture

I might surprise you with a list that includes not only books on architecture but also features works on other subjects. In my case, in my house, there are more books of poetry than Architecture and as you can imagine, my collection of books on Architecture is quite large! I think that apart from being necessary, it is indispensable to read books not just about Architecture. I've made a short list of twelve books which I would invite you to read and enjoy.



The Little Prince

Antoine de Saint Exupery

Even if you have already read it, read it again with an architect's mind.

Letters to a Young Poet

Rainer Maria Rilke

Enjoy.

A Christmas Memory

Truman Capote

Go back and climb up to the treehouse with the main characters.

Eupalinos or, The Architect

Paul Valery

You probably never thought of an architect in this way?

Modern Architecture:

A Critical History

Kenneth Frampton

Basic information from someone who is passionate about Architecture.

Le Corbusier

Willy Boesiger

A basic work on the maestro.

Mies van der Rohe

Werner Blaser

A simple work on the other maestro.

Louis I. Kahn

Christian Norberg Schulz

He was an exemplary architect.

La Idea Construida

Alberto Campo Baeza

I have tried to be clear and think it may help you.

Errata

George Steiner

Magnificent. You will enjoy it.

Meditation on Technique

José Ortega y Gasset

Clarity is the courtesy of the philosopher, Ortega said.

And here it is in plenty.

Sonnets

William Shakespeare

Marvellous.

SIX MASTERS

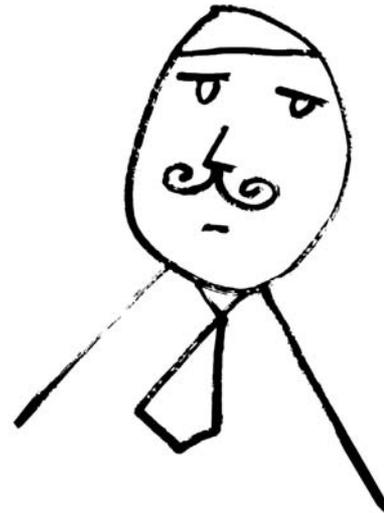
Sota, Oiza, Fisac, Cano Lasso, Coderch and Carvajal are the most important masters of contemporary Spanish Architecture.

Alejandro de la Sota is already a legend for Spanish architects. His written works are few but of such quality and intensity that he has had a profound influence on all Spanish architects. I had the good fortune to have him as professor in my first year as a student at the Madrid School of Architecture. It was he who turned me into an Architecture addict. Architects of the calibre of Pep Llinás, Víctor López-Cotelo and Carlos Puente all collaborated with him. There is a foundation to disseminate his work, the most well-known examples being the Gymnasium of Maravillas and the Cesar Carlos residence hall, both in Madrid.



Francisco Javier Sáenz de Oiza was the most radical and the most renowned, and as Professor of Design Projects at the Madrid School of Architecture he formed a group of brave young people to work with him. His defining works, the Banco de Bilbao on the Paseo de la Castellana and the Torres Blancas on the way to the airport, have become emblematic buildings in Madrid. I started out with him as Professor of Final-year Design Projects in 1976, following major student protests which Miguel Fisac also became associated with.

Miguel Fisac was the architect par excellence during the fifties in Spain. His marvellous churches full of light and his original reinforced concrete structures have not only withstood the test of time but we now look upon them as extraordinarily modern, ahead of their time. His figure grows in stature as time goes by.



Julio Cano Lasso was an exceptional person. He taught at the Madrid School of Architecture where I had the privilege of not only being one of his students, but was called on later to collaborate with him in several major works. His architecture is sober and very beautiful. His sons, Diego, Gonzalo, Alfonso and Lucía, are all extraordinarily talented architects.

José Antonio Coderch was a marvellous architect. From his Trade buildings to the house in Caldetas, both in Barcelona, all his work bears the hallmark of undeniable genius. I still have a photograph of bulls from him with a signed dedication. A great guy.

Javier Carvajal is an extraordinary architect. As faculty professor, first in Madrid and later in Pamplona, he was an exceptional figure. He created a school and several of his lecturers are now professors. He was my thesis director and I taught with him for several years. His work is of prime importance: from the Business School at the University of Barcelona in Barcelona, to the Carvajal House in Somosaguas in Madrid. Or the Spanish Pavilion at the New York Fair which won all kinds of awards.

CONCLUSION



If you have managed to read the whole text, which though not very long is quite precise, I am inclined to think that you have the enthusiasm necessary to opt for a degree in architecture and later embark on a career in this marvellous profession.

The reason for writing *I Want to Be an Architect* is because for me this is the most wonderful career in the world, one that fills me with happiness and with which I try, through the buildings I construct, to make others happy.

If you too decide on Architecture I'd like it to be the same for you. To conclude, I can only repeat that it is a career that is tremendously worthwhile, but it also demands enormous effort. And you should never give up studying, and advancing your training all your life. For the best works are achieved in your mature years. The more knowledge you acquire, the better the result: more precise, more accurate, more capable of withstanding time, that quality common to all worthwhile creations in the world.

And although I have tried to be brief, clear and concise, I'd like to condense what I have said just a little more:

Study hard and get good grades so that you have the points you need to freely choose the School where you would like to study for a degree in architecture.

Draw, take photographs and write lots about Architecture. And read, lots.

And listen to music and good music.

And think, above all, think.

Be curious and carefully go through the course programmes. Get the idea into your head that it is a long-term degree and a lifelong career. Intense and requiring continuous effort. But a career that brings huge satisfaction. Nothing compares to seeing a work built that you have designed in your head and seeing that those constructed spaces are capable not only of doing what they set out to do but are also capable of thrilling us and making others happy.

In short, it's well worth it *being an architect*.

The Author



Alberto Campo Baeza was born in Valladolid, where his grandfather was an Architect. From the age of two he lived in Cádiz, where he saw the light.

He is a professor in the Madrid School of Architecture, ETSAM, where he has been a tenured professor for more than 25 years. He has taught at the ETH in Zurich and the EPFL in Lausanne as well as the University of Pennsylvania in Philadelphia.

His work has been widely recognized. From the single family houses Casa Turégano and Casa de Blas, both in Madrid, to Casa Gaspar in Cádiz and the Olnick Spanu House. Also the Caja de Granada and the MA, both in Granada and a nursery for Benetton in Venice. The project between Cathedrals in Cádiz, a building for Offices in Zamora and the most recent VT house in Cádiz.

More than 30 editions of his texts "La Idea Construida" (The Built Idea) and "Pensar con las manos" (Thinking with your hands) have been published in several languages.

He has exhibited his work in the Crown Hall by Mies at Chicago's IIT, at the Palladio Basilica in Vicenza, in the Urban Center In New York and at the Saint Irene Church in Istanbul. In 2009 the prestigious MA Gallery of Toto in Tokyo made an anthological

exhibition of his work that, in 2011, was in the MAXXI in Rome. In 2013 his work was exhibited in the American Academy of Arts and Letters, New York, and in the Pibamarmi Foundation in Vicenza. In 2014 he was awarded the RIBA International Fellowship as well as being added to the Royal Academy of Fine Arts of San Fernando's exclusive academy.

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