

32
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SUPERCHARGE YOUR CSS

Discover the amazing
benefits of preprocessors

ANIMATE WITH SNAP

Design dynamic SVG
JavaScript headers

HOT 100

Industry experts reveal 2014's
biggest web design trends

15

BEST BROWSER DEVELOPER TOOLS

How to examine, design and debug in
Chrome, Firefox, IE, Safari and Opera



A BEGINNER'S GUIDE TO BRACKETS

Say hello to the open-source code editor
built by developers for developers

HOW TO CREATE

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- UIs with Knockout.js
- HTML5 upload forms
- Scrolling image galleries



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ISSUE 218

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**AGAIN! SOUND
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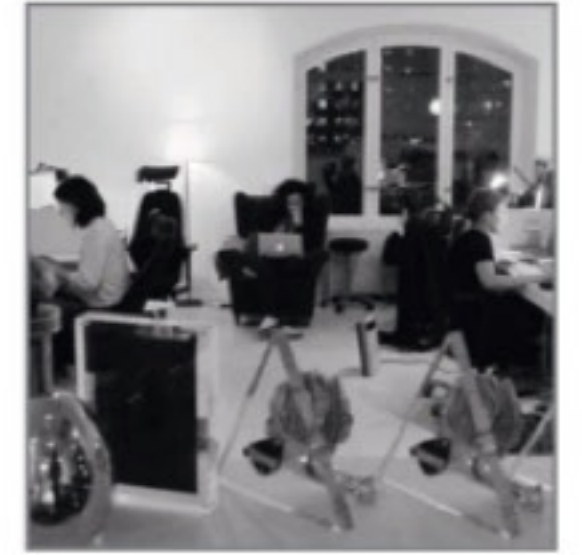
THE WEB DESIGNER MISSION

☞ To be the most accessible and inspiring voice for the industry, offering cutting-edge features and techniques vital to building future-proof online content ☞



Steve Jenkins

Highlight



☞ We describe our approach as looking for work that gives us butterflies in our stomachs when we read the brief ☞

Web Designer heads to Sweden to get cosy with the kings of digital design North Kingdom [Page 32](#)

The excitement of a new year starts here



new year in web design and development brings with it the promise of greater riches. New technologies, better frameworks, impressive tools and, of course, the unexpected.

The **Web Designer** HOT 100 ([page 40](#)) is here and with it is a host of predictions, comment and opinion. We have brought together a host of industry experts to unveil what will, could and should lie in wait in the year ahead. At this point we would like to thank all the contributors for helping us to make the HOT 100 the tasty tome that it is.

What's going to be big in CSS? What plan does the W3C have for HTML5? What are going to be the cutting-edge

design trends in 2014? Where will web fonts and typography be heading? Who are the agencies to keep an eye on? What's going to happen to WordPress? All pertinent questions with equally pertinent answers, all in the HOT 100.

But this issue is not all about predictions – we haven't forgotten our roots. We also reveal how to supercharge your CSS by uncovering the amazing benefits of CSS preprocessors and offer practical tips to try out ([page 82](#)).

Designing and developing in the browser ([page 74](#)) is a definite plus for designers and developers. But, why? Take a tour through our six-page guide and find out the best developer tools for all the major browsers.

Finally, don't forget to check out our Lightbox pages and, as always, look forward to seeing you again next issue.

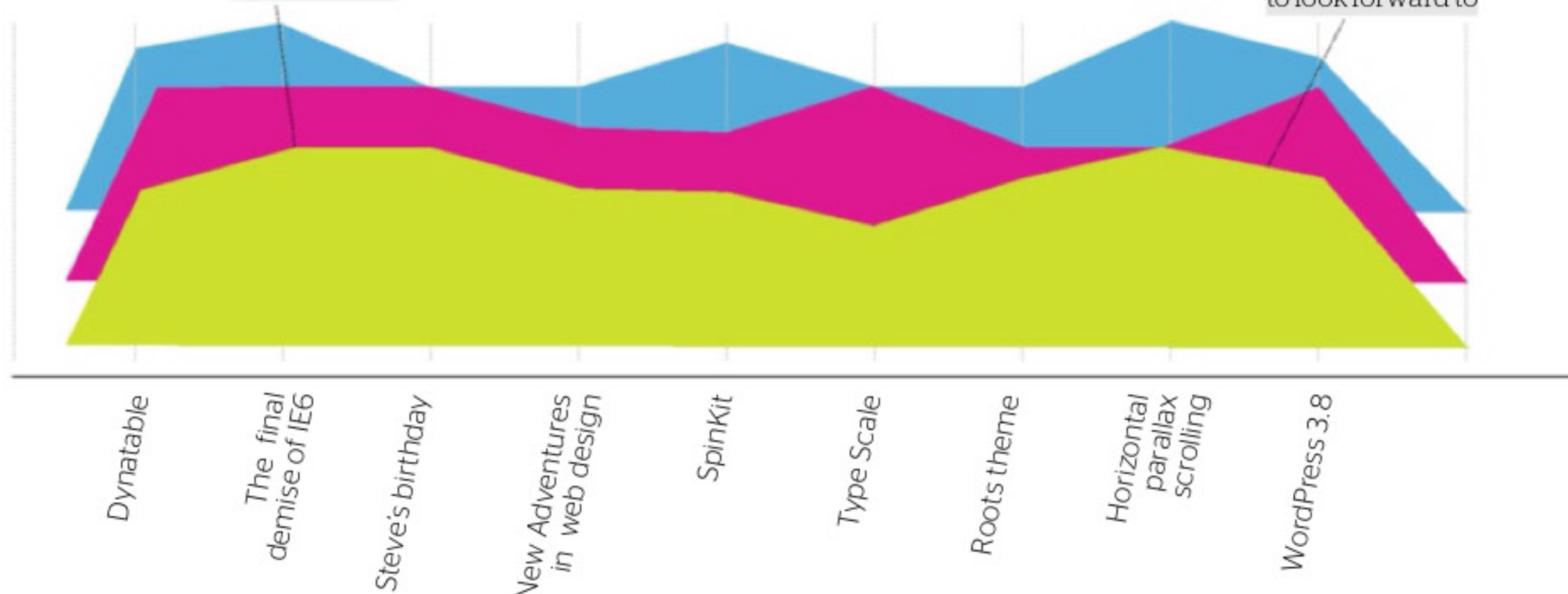
☞ A new year brings into focus what will, and what may, lie ahead ☞

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We will rejoice when this day finally comes

A new take on parallax is something to look forward to



Excitographic

Plotting the features that got us in a frenzy over the month...

- Steve Jenkins, Deputy Editor
- Rachel Shemilt, Designer
- Victoria Richards, Sub Editor

Turn over to the contents to discover what's going to get you excited this issue...

This issue's panel of experts

Welcome to that bit of the mag where we learn more about the featured writers and contributors...

It's the unexpected that could really set the tone for 2014. What will appear from the sidelines?



HOT 100 2014 experts

It's a new year and **Web Designer's** HOT 100 is back with a host of industry experts offering a look at what's going to be big in 2014. We would like to give a big thanks to all of our contributors, whom without this feature would not have been possible. [Page 40](#)

Sam Hampton-Smith



Sam is a freelance graphic designer and web developer who has worked with a host of major clients including the Home Office. He brings together the best browser dev tools for Chrome, Firefox, IE, Safari and Opera. [Page 74](#)



Richard Wentk



Richard is a long-time producer of code, creating apps and writing numerous books on the subject. This issue he delves into the world of CSS preprocessors and reveals why you need them in your creative toolset. [Page 82](#)



Mark Shufflebottom



Mark is a Professor of Interaction Design at Sheridan College, Ontario. This issue he tackles the new Snap.svg library and reveals how to combine with Google fonts to create dynamic animated headers. [Page 58](#)



Neil Pearce



Neil is a designer and instructor for the Envato network and a keen exponent of CSS. This issue he reveals how to use CSS transforms and transitions to create imaginative and animated circular menus. [Page 52](#)

Jayson Winters



Jayson is the creative lead at Brace Design and is always looking for great UI techniques for a better customer experience. This issue he demonstrates how to create an upload form using HTML5, CSS3 and jQuery. [Page 64](#)

Tim Stone



Tim is a front-end developer who has a first-class degree in Interactive Media Production. Always keen to unveil the potential of JavaScript, this issue he takes on Knockout.js and reveals how to create data-driven UIs. [Page 88](#)

Daniel Duke



Dan Duke is a freelance, graphic designer and illustrator with an eye for typography and a passion for web. This issue he shows us how to produce a breathtaking partial-submersion effect in Photoshop CS6. [Page 68](#)

Matt Gifford



Matt Gifford is a lead RIA consultant developer and industry author from Cambridge, who specialises in mobile development. He goes inside the Brackets code editor, built by developers for developers. [Page 94](#)

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contents

Cutting-edge features, techniques and inspiration for web creatives

Chat with the team and other readers and discuss the latest tech, trends and techniques. Here's how to stay in touch...

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Quick look...

- 08** [Will HTML5 ever compete with native apps?](#)
What does HTML5 need to do to gain parity with mobile applications?
- 10** [Is AR making a comeback?](#)
Augmented Reality visionary Keiichi Matsuda talks about where the technology is going
- 12** [Perfect your portfolio](#)
Underwired creative director Jason Holland offers some essential pointers
- 14** [Getting a better UI](#)
CEO of ShrinkTheWeb Brandon Elliott reveals how referencing a webpage can impact on audience engagement
- 16** [Lightbox](#)
A showcase of inspirational sites and the techniques used to create them
- 24** [The Future of Mobile Phones](#)
Behind the scenes with Epiphany and their parallax ode to smartphones
- 32** [The design kingdom](#)
Super strategists North Kingdom reveals how they get emotional with people and brands
- 40** [HOT 100 2014](#)
Industry experts reveal what's going to be big in the coming year
- 74** [15 best browser dev tools](#)
Discover the developer tools that will help increase your productivity across browsers
- 82** [Supercharge your CSS](#)
Experiment with preprocessors and unlock the real potential of CSS
- 100** [Portfolio](#)
The latest selection of aspiring web talent
- 104** [Crowd source](#)
Your questions and comments answered
- 106** [Hosting listings](#)
An extensive list of web hosting companies
- 114** [Next month](#)
What's in the next issue of **Web Designer?**

Cover focus



24
The Future of Mobile Phones
Epiphany reveals how parallax was the key



32
ProFile: North Kingdom
Bringing people and brands together



16
Lightbox: Life Fitness
A gold-standard site for the Winter Olympics

On the free CD

112 Discover what your latest disc has to offer

A comprehensive collection of free designer resources!

- 55+ minutes of pro video guides
- 27 Creative 3D lines
- 10 Landscape brushes
- 30 music loops and sound FX



74 [The best tools to examine, edit and debug in all the major browsers](#)

<header>

Discussing the hottest topics from the web-design world

8 [Will HTML5 ever compete with native apps?](#)

It will eventually, but what does the spec need to do to catch up?

10 [Is Augmented Reality on the comeback trail?](#)

Web Designer talks to AR visionary Keiichi Matsuda about its possible future

12 [Comment: Jason Holland](#)

Underwired's creative director offers unmissable advice on creating the perfect portfolio to help get a job

14 [Comment: Brandon Elliott](#)

The ShrinkTheWeb CEO discusses the benefits of webpage previews and how they can engage an audience



“You're a creative, so exercise that muscle and think of your self-promotion as a creative brief”

Jason Holland

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for back issues, bookazines and DVDs

<tutorials>

Web gurus take you step-by-step through professional techniques

52 [Create CSS circle navigation](#)

Use the power of CSS transforms and transitions to make an animated menu system

58 [Make an animated header](#)

Unleash the new Snap.svg JavaScript library to add motion to images

64 [Build an upload form](#)

Create a platform-friendly form for uploading images using HTML5, CSS3 and jQuery

68 [Design layered backgrounds](#)

Fire up Photoshop and discover how to create a visually stunning partial-submersion effect



web workshop

62 [Blur and focus typography](#)

www.ffmark.com

Bring text in and out of focus on scroll

72 [Create an image gallery](#)

www.jkdesign.com

Add a simple horizontal multi-image gallery

web developer

82 [Supercharge your CSS](#)

Discover the amazing benefits of preprocessors and how they can power up your code

88 [Build data-driven UIs](#)

Make a modular app with real-time UI updates and multiple views with Knockout.js

94 [A beginner's guide to Brackets](#)

Get to know the open-source code editor built by developers for developers

Discussing the hottest topics in the web-design world

If you have a creative project, new web product or great designer story, contact the editorial desk

webdesigner@imagine-publishing.co.uk @WebDesignerMag

Will HTML5 ever be able to compete with native apps?

What does HTML5 need to do to gain parity with mobile applications. **Web Designer** investigates...

For many, the formative stages of the HTML5 era can be heralded as nothing short of a revolution.

Browser-based web design has become a more vibrant and dynamic canvas, embracing CSS3 and JavaScript while relegating Flash along the way.

However, a key driver for the specification's adoption has always been mobile, despite the dominance of natively coded apps. Just ask yourself, how many HTML5 apps do you have on your mobile device? Okay, and how many have you merely tried? Precisely – and user demand feeds back into the central problem of developer support.

Recent industry studies suggest performance, breadth of toolset, education and marketing as valid reasons for precisely why that support is so short. VisionMobile and Telefonica's research report 'How can HTML5 compete with Native?' surveyed over 6,000 developers to find measurement of performance and certainly a lack of in-browser APIs to be most telling. With 61 per cent using the browser to build mobile apps, it found only 37 per cent of Android apps listed on Google Play US could be emulated with HTML5 in this way. An assertion that this percentage would rise by 21 per cent if specific APIs for power management and Wi-Fi were added illustrates the practical problem.

Outside the browser, it falls to hybrid tools such as PhoneGap, web-to-native

converters and native JavaScript APIs to pick up the remaining 39 per cent – each yielding varying ratios for recreating those Android apps. These disjointed routes again muddy the waters with various extra vendors, while the top browser brands also straddle the mobile operating system business. This culminates in the kind of inter-browser politics that stifle JavaScript performance and the slow, staggered adoption of Working Draft APIs.

On top of this, developers clearly feel that the current level of tools and documentation is yet to find parity with native equivalents. Differing provisions

“ Developers clearly feel the current level of tools is yet to find parity with native equivalents ”

between browser vendors again a cause, while 34 per cent of developers simply feel that HTML5 needs a better environment to match native SDKs.

Perhaps a more recognisable disadvantage for HTML5 versus native app development would be their promotion and distribution. Although the VisionMobile report downplays this notion as a primary factor, developers surely see the marketing of HTML5 apps as prohibitive. With 14 per cent believing

a lack of large app stores of concern here, it does highlight a rather pertinent area for widening the market. After all, why should developers struggle against an ill-equipped platform, continue to rally for improvement, and indeed build new tools if the apps that they build cannot then be monetised?

Google champions to an extent while Android apps, built natively in Java, exist within a popular marketplace closed to HTML5. Apple too played a pivotal role in promoting the

virtues of early HTML5 adoption, chiefly in a successful bid to sideline Flash-based content. With its thriving iTunes App Store exclusive to natively built Cocoa-based apps, HTML5 developers can only dream of such a shop window to leverage. While Facebook's App Center and Mozilla's Firefox OS Marketplace can be called high profile and trustworthy, they still target a specific user base that doesn't yet represent mouthwatering proportions.



Suffering from a lack of mobile optimisation, inconsistencies in experience and with no cross-platform advertising standards, all of these marginalised apps face an uphill battle.

Similarly, commercial forces are also likely to dictate where the viable interest in championing HTML5's corner will come from. It could be argued that an open-source route may not be of benefit to mobile app deployment anyway.

Established user trust and a closed, natively targeted model may well be fundamental to why apps even matter in the first place. We know that the W3C doesn't envisage the HTML5 specification to be fully realised for an estimated eight years yet anyway, so the long game was always set. However, whether this roadmap can embrace those hardware APIs so crucial to moving the native apps we take for granted today into the mobile browsers of tomorrow still remains to be seen.



EXPERT INSIGHT Jake Davis

Design director, PocketApp (www.pocketapp.co.uk)

“It is without a doubt that you can make amazing HTML5 applications, but they are exactly that: ‘HTML5’ applications. For simple data-driven applications that do not require any custom animations or fluid fading slide-in UI elements, they do what they need to do in a more cost-effective manner. However with the expectations of innovative transitions, elaborate user interface designs and an overall enhanced experience within consumer applications growing, HTML5 is still second in performance when handling these high-calibre front-end design expectations that we strive for at Pocket App.”

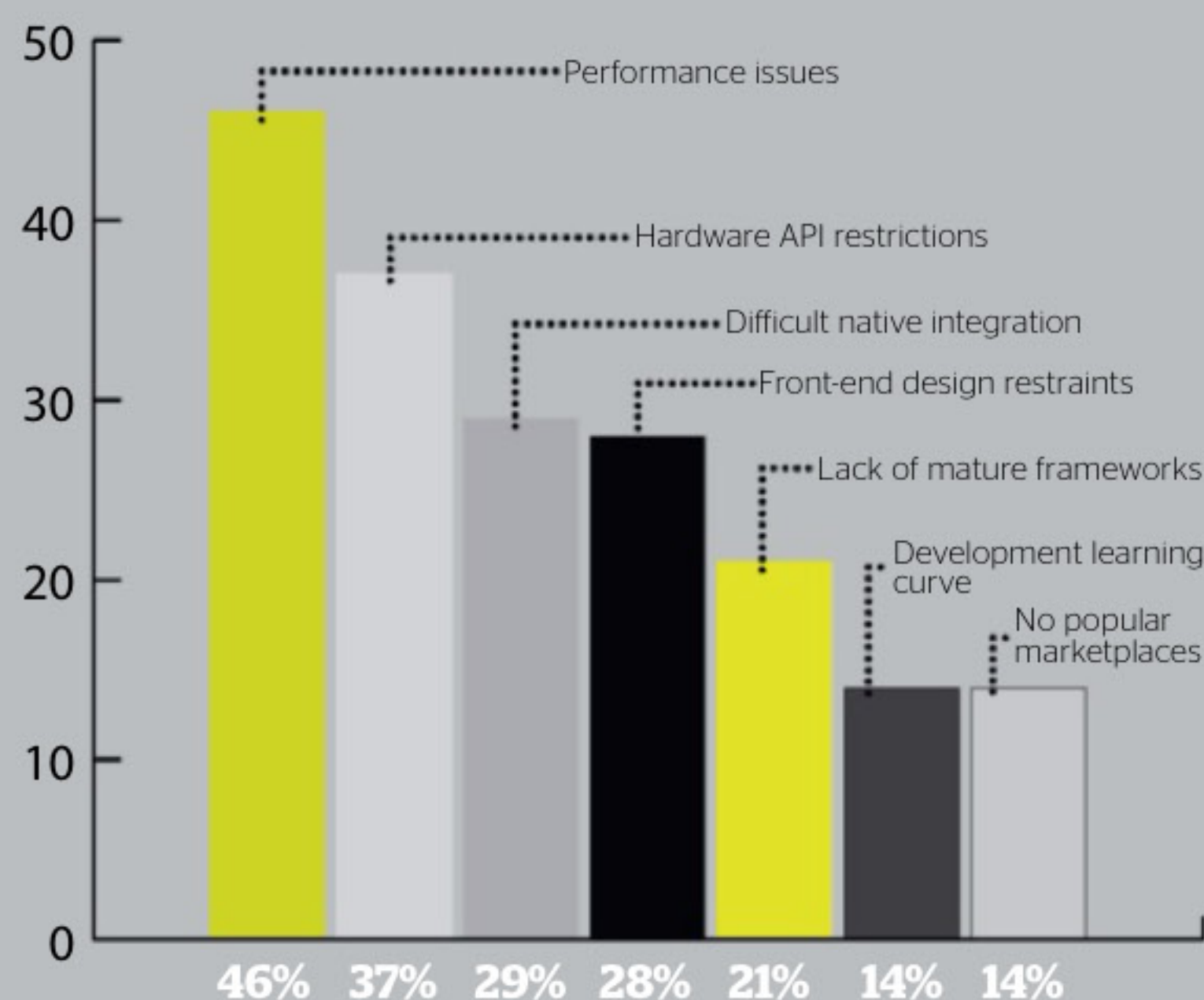
In such a fragmented OS market the simple concept of one app for all is attractive to many of our clients, but we work with them to decide whether this solution will really meet the expectations of their end product. This one-size-fits-all solution does come with trade-offs in performance, hardware limitations and will in many cases fall short in delivering the unique experience for each mobile operating system that its users have grown accustomed to. This is highlighted more so on devices outside of Apple's domain, with varying processing power and device-specific browser issues accentuating performance problems.

PocketApp is a London-based agency specialising in mobile app development and UI design, building solutions for over a decade

Top HTML5 hindrances

Most popular reasons why developers don't use HTML5

These statistics clearly place issues of performance and development restrictions at the forefront. Although monetisation and distribution feature lower on the scale, it's worth remembering that these areas of concern are not mutually exclusive. Combined, they form a sizeable hurdle for the perception of HTML5 app development, both inside and outside the mobile browser. API support appears to be an ideal place to start, but to see a significant shift from native this array of issues must be addressed collectively. Only then will developers see value in migration and in turn strive for the kind of innovation required to realise HTML5's full potential on mobile.



Source: VisionMobile / Telefonica, September 2013 bit.ly/1cmPsOs

World of Animals unleashed

Get your paws on this visually stunning wildlife magazine that animal lovers across the globe have been crying out for

Unlike web designers, orangutans, tigers, and gorillas are all endangered species. To highlight their plight and bring a sense of wonderment to Earth's diverse animals Imagine Publishing is set to launch its spectacular wildlife magazine **World of Animals** (AnimalAnswers.co.uk).

"We wanted to create a magazine that inspires excitement and wonder at the amazing wildlife that the natural world has to offer" said Dave Harfield, Editor In Chief.

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Bite-sized coverage of the month's trending topics

Google Dart

Not content with ruling the web search and mobile OS roosts, Google now wants you to build structured apps with its own coding language. Dart was originally announced in October 2011 but now has a stable 1.0 release for developers to master, available at www.dartlang.org with tools and documentation.

Google Topsy Labs

Apple buys social media analytics firm Topsy Labs for a reported \$200million

Bitcoin

The speculative dark web currency continues to soar in perceived value

Best Brazilians

According to brazil.topseos.com, the top web agency in Brazil for December 2013 is Área Digital

Latest update boasts 50 new features

FileMaker 13

Apple

4K MaxiPad?

Viewing stunning HTML5-based websites and apps in retina-popping clarity could be set to go a stage further in 2014. Speculation in Asia hints Apple are readying Foxconn factories for a line of MaxiPad tablets, including a premium model equipped with an Ultra High Definition (UHD) 4K resolution screen.

Is augmented reality set to make a comeback?

We ask Keiichi Matsuda, one of AR's most active visionaries, where the technology is today and where his latest film project hopes to push it

Keiichi Matsuda is a designer and filmmaker, best associated for his experimental work within the realms of augmented reality. His mixed-media approach can be regarded as a touchstone for visualising a reality where man and machine converge more closely. Currently producing a new AR film series, the first film was funded on Kickstarter, with investment now being invited for the rest of the series. This includes working with sponsors to update their businesses for the hyper-real future and create new visions through design and fiction. Taking a break from filming, Matsuda began by explaining where consumer AR may well be heading next.

"AR always came in many different flavours, but the most successful in the past have been the 'magic mirror', product-focused type of marker-based AR, and the 'magic lens', environment-focused type that uses the device's compass, gyroscope and accelerometers in the place of a marker. AR has come a long

way since then, and SLAM-based systems that use computer vision to build maps of environments are becoming mainstream.

"Developers are also finding better ways to use AR. HIT Lab's beautiful ColAR app is one of the nicest uses of AR I've ever seen, playing heavily on the 'magical' aspect of the technology. As for the future, there is a lot to look out for. AR giant Metaio have developed a dedicated AR chipset that looks like a huge step forward

a buzz that fades away. AR was a hot prospect a few years back, but is it becoming an unfulfilled novelty?"

"The speed of marketing hype and expectation far exceeds the speed of actual technological progress. Because of that, there is always a cycle of buzz and dismissal with any emerging technology. AR had it particularly tough, with so many inappropriate and gimmicky uses of the technology in the last generation. The

will be a very disruptive technology as it advances. Although dismissal by the media can damage generations, the underlying implications of AR are alluring enough that it will keep rearing its head."

Keiichi's work plays a role in firing people's imaginations, using an artistic approach to stimulate scientific expression: "My work is intended to be a provocation. It's a counterpoint to the glossy futuristic videos produced by the big tech companies. I'm not trying to sell the technology, I'm trying to give people the tools to gain a critical understanding of emerging technologies, and so they can decide how they want their future to be.

"It's important, because technological progress has become so centred on economics. We feel like our future will only be determined by market force. I believe that through design and fiction, we can give normal people a voice in the creation of the future, and inspire developers to build systems that will improve our world."

For many, Keiichi's work will raise the question of when his fabulously futuristic AR worlds could materialise: "There are two things to consider. On the one hand, the technology is close. Maybe five years. But the adoption of technology takes longer, as it relies on cultural change, not to mention the amount of infrastructure required for a fully immersive AR city.

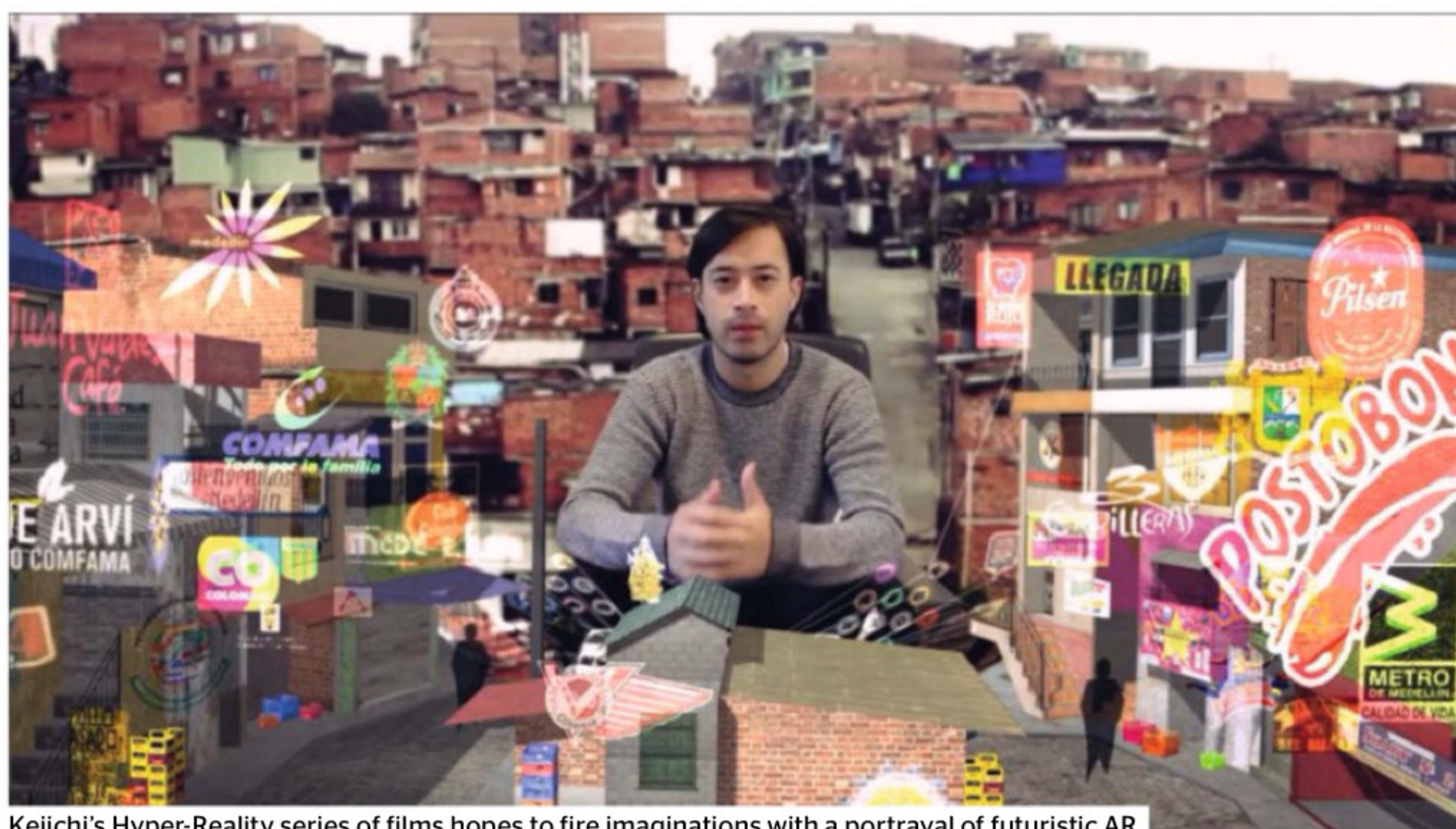
"Having said that, it might not be as far as we could imagine. Lots of smart people are working on AR, and the financial incentives are there, so I would hazard an estimate at 15 years. However, my projects aren't about predicting the future. They are about understanding the present, and the choices we are making now. The future I imagine may never happen, but I believe that creating visions of the future can have an impact on our world."

To find out more about how you get involved in Keiichi's latest project, please send an email to keiichiban@gmail.com with the subject line 'hyper-reality'.

“We’ve only seen the tip of the iceberg with what AR can do. It will be a disruptive technology”

for smartphone AR, and Google Glass is pointing the way to an immersive, always-on AR experience. It's still very immature, but it's the future." The future maybe, but one of the obstacles such a 'magical' technology can face is becoming

buzz of three years ago is coming back again though, giving new people new ideas about what AR could do beyond being a marketing tool. As I try to depict in my films, I think we've still only seen the tip of the iceberg with what AR can do. AR



Keiichi's Hyper-Reality series of films hopes to fire imaginations with a portrayal of futuristic AR



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Perfecting portfolios

Jason is co-founder and creative director of Underwired. He has 18 years' experience in the industry and has won a variety of awards in his career. Jason is also a BIMA (British Interactive Media Association) Awards judge.



Jason Holland

What turns a great digital design student into someone I want to employ?

Portfolio content can vary hugely in quality, but I always see the same mistakes being made and the same elements missing. These can be categorised into five main issues, which are all easily fixed and would instantly put the presentation of your work above most competing portfolios.

To start with, a short block of copy to introduce each item of work, be it a physical or digital portfolio, will help frame what is being viewed and put it in context. Write a sentence that covers the brief, two sentences that describe the challenge, and three sentences that say why your solution is fantastic! This allows the person viewing your work to understand the reasoning behind your ideas in more detail, see where you have displayed skills within any restrictions and most of all, how your final piece would work in the 'real world'.

This will help make you relevant to the agency's business. The business reason for you being hired by an agency is for your skills and to ensure that ultimately, you make them a profit. This means having 'commercially aware' projects and solutions within your portfolio is really important. Show how your beautiful creation will sell products, create brand exposure, leapfrog the competition, or in some way identify how the client benefits (beyond a creative award or two) while staying inside a brief. This is after all, what you will be doing in the job!

For example, if you're showing a holiday company's website design, which looks fantastic (on all devices), is memorable, reflects well on the brand perception and is really easy to use, also point out how the journey through a booking engine is not a pain in the backside, has been halved in length and uses technology and data to keep a visitor in a user journey that's better than their competitors - resulting in more bookings and less abandoned baskets.

It's also important to be memorable. In a sea of CVs that I - and I'm sure many others like me - receive every day, it's important that yours grabs the attention of the recipient by doing something that leapfrogs an email with an attached CV. By this I don't mean just design a typographically funky PDF. You're a creative, so exercise that muscle and think of your self-promotion as a creative brief.

I once had someone apply to be my 'human coffee table' with a full résumé and covering letter proudly showing his credentials for such a

role. Freaky? Yes, but how could I not reply to such an introduction?! To cut a long story short, we met over coffee and looked through his work - three weeks later I created a job role for him even though there was never a vacancy! Half of their new role was to think of new ideas for our clients without waiting for them to give us a brief.

Someone else sent me a ten-second snippet of their show reel every Friday morning, that when stitched together, formed their complete portfolio movie - the last snippet being delivered by hand if I agree to meet the candidate. Clever! Reflect these great approaches in your portfolio and any branding you do for yourself - it's all part of being remembered for more than just your work.

Another stand-out feature of a CV worth its weight in gold is having a well-balanced combination between having your feet firmly on the ground and the confidence to be reassuringly knowledgeable in your skill. As a newbie, you'll be expected to cover the type of work that no-one else wants to do, as well as (hopefully) getting involved in the more meaty projects. Be open and realistic about how you're willing to do the groundwork, and you'll be adding more value than the job vacancy description may have let on.

It's also worth noting that your qualification and skills acquired during your college/university experience only prepare you for the real learning you will do in the first six months of a new role. Still, that study time was an essential part in preparing you for the task.

Finally, the work you show shouldn't be just limited to the briefs you have been given. Showing how you have a passion for elements that surround the job role you are interested in shows that you have a natural energy for what you hope to enjoy in a career, and it's this energy that will keep you going through the rest of your working life!

For example, if you're applying to be a digital designer, you may want to show off your personal website that is used in another hobby or pastime, or the great Pinterest page you created that shows a scrapbook of great design you have been inspired by.

Overall, it's important that your work shines through, as this is ultimately the most important part of what you are sharing in a job application. However, with so many portfolios and candidates having the same elements missing, it is so easy to make yours shine brighter.

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A better user interface

Brandon Elliott is the CEO of ShrinkTheWeb and has achieved various certifications, including MCP+I, MCSE, MCT, CCNA, and CISSP. He has also successfully completed numerous consulting projects.



Brandon Elliot

The perfect combination of visual user interface elements provide the key to engaging an audience

Since the early days of the internet, web designers have sought out the best ways to spice up their designs. In the most recent decade, when referencing another webpage, many designers have realised that showing a webpage preview is a great way to engage the audience with a visually appealing cue. The use of screenshots has proliferated designs for many years, especially as directory, search engines, and shopping sites have embraced their benefits.

There are several benefits of using screenshots; they save time identifying relevant links, increase visual appeal, engage users with familiarity, provide a preview of a site without visiting it, bring important references into focus, work as icons for the websites they represent and makes designing a user interface easier with the automation process.

As far back as 2002, Microsoft commissioned a research paper on the utility of using website screenshots in design. In this paper titled 'Searching the Web Using Screenshots', they showed conclusively that web surfers were much more proficient in finding a correct search result when website screenshots were included along with the listings. The purpose of the white paper was intended to be an 'Empirical evaluation of the utility of thumbnail previews in web search results'.

It is becoming a known fact that visitors prefer directory sites that include website screenshots beside their directory listings. The same goes for search engines, media sharing services, parental control services, and related mobile applications. As a result, website screenshots are quickly becoming a staple of the internet. Over the next few years, it is likely to become expected that most references to other websites will be visual, which means the use of a webpage preview or other relevant visual cue.

With the continued growth of CMS (content management systems) and site themes, it was only natural for developers to begin integrating automated screenshots. There are many reasons why web developers are increasingly using website screenshots in their design. One big reason is that they increase the visual appeal of a user interface. By complementing text links with relevant images, users become engaged by something familiar and representative of the webpage being referenced. This can be an excellent alternative to stock images, which are often less relevant and can be expensive. CMS systems that use

plug-ins and website themes, such as those provided by high-end screenshot services, allow developers to create a site that utilises screenshots with little design time and effort. This allows designers to create a functional user interface that has proven results and overcomes the challenges involved in the design process.

The advent of the icon itself is arguably one of the greatest advancements made to computer user interfaces. Icons are widely used in just about every platform. Coming up with a concept and designing an icon for every link on a website that has hundreds or thousands of links is hardly feasible. For this reason, webpage screenshots are taking off in designs. The automated screenshot can work as a dynamically generated icon for the websites they represent. There are many other ways automated website screenshots improve a website's user interface though; a well-placed screenshot can be used to draw attention to important references and also act as a preview of what's on the other side of a link.

The reason that end users prefer to have web previews is because humans are visual creatures. We are able to quickly recognise content that has been seen before and it helps to make a connection with the web surfer. By nature, people avoid large bodies of text as it can be overwhelming when searching for something very specific. Having a screenshot along with text links is like adding illustrations or pictures to an otherwise long and verbose book, it breaks up the mundane and adds a bit of eye candy to the overall presentation.

Now that premium automated screenshot services have been around for a while, web developers and designers can take comfort in knowing that they are not the first to use such a service, and perhaps be inspired by some of the many users who have already implemented the technology. Major companies, such as Microsoft, Technorati, Google and Symantec have all built applications around webpage previews. Even some browsers incorporate webpage previews by default, on a new tab, for recently visited sites.

So, it seems to be an emerging trend that developers and designers are revisiting their applications and web designs to consider where website screenshots might benefit them the most – are you making use of them too?

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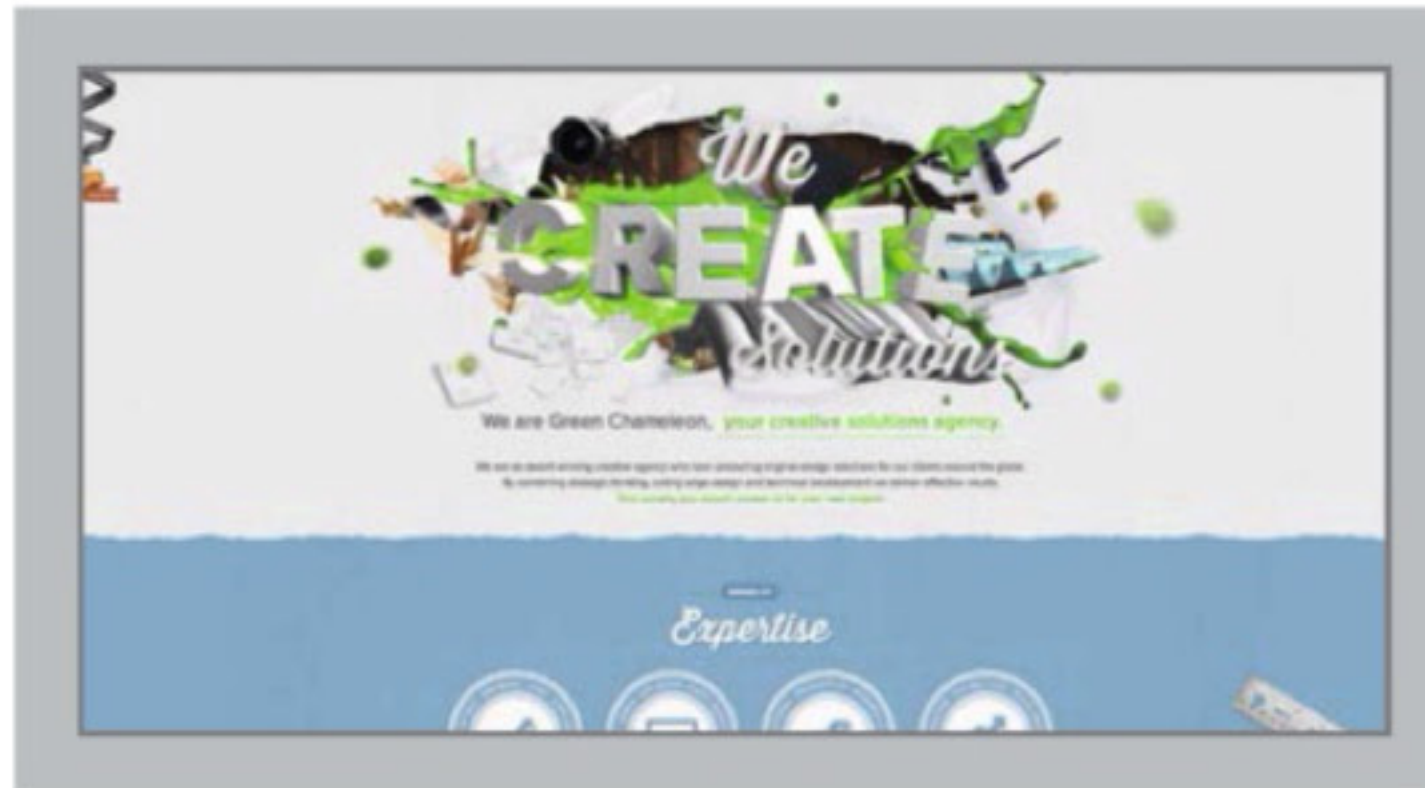
Prices and features correct as of November 2013. Prices shown are ex VAT (charged at 20%).

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Life Fitness at Sochi 2014

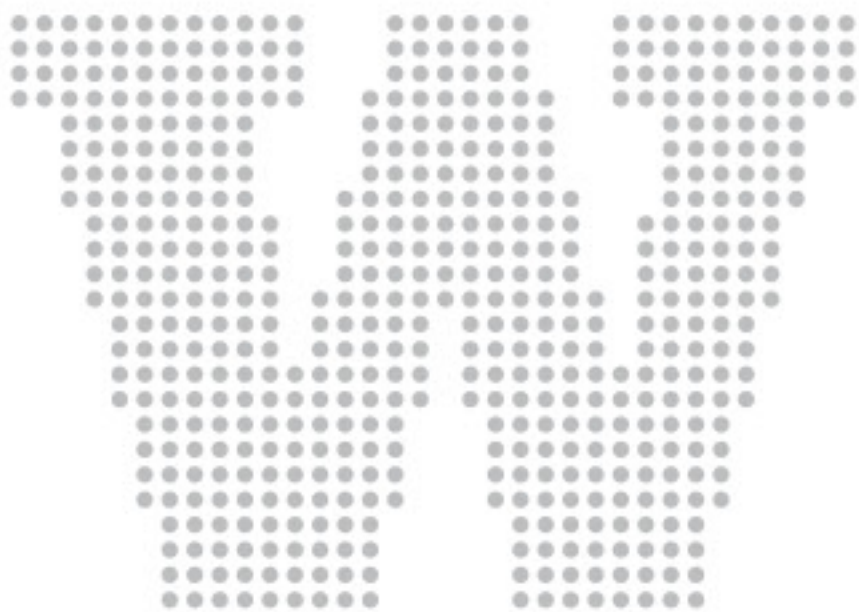
bit.ly/GXaAmh

Development technologies CSS3, HTML5, jQuery, Typekit, Modernizr



Designer/developer **Green Chameleon:**
www.greenchameleondesign.com

A gold-medal standard site design provides the perfect warm up for next February's prestigious Winter Olympics event



With over 40 years experience in the health and fitness business, you would expect Life Fitness to be associated with Olympic events. This is exactly the message the brand hopes to underline with this stunning promotional

website. Life Fitness has designed and supplied all of the equipment for Sochi's Winter Olympics in February 2014, telling the story of its involvement with truly arresting photography.

Bristol-based designers Green Chameleon have successfully woven this client message between a series of high-octane image assets, culminating in a lengthy experience for Russian and international fans. By dropping in little

nuggets of interactivity while seamlessly tying in product brochure content, the site cleverly unfurls layers of depth over repeat visits. Add to this the tasteful use of almost obligatory parallax-scrolling effects and the visuals too take on a 3D feel, breathing life into the otherwise static shots.

"With a huge bank of beautiful imagery at our disposal we set about creating an interactive journey for the user," begins design director Nathan Riley. "By manipulating photos we created a powerful header graphic and a seamless backdrop, guiding the user from the summit of the mountains down to the Olympic Village. We then used a range of techniques including CSS3 load animations, scroll-triggered parallax movements and HTML5 video to enhance the journey and really bring the content to life."

With a huge bank of beautiful imagery at our disposal, we set about creating an interactive journey for the user



<Above>

- This vertically very long site opens with a vibrant montage of rich action photography

<Below>

- The page footer features a subtle fireworks animation, again adding some visual excitement to the static imagery



Life Fitness



<Top left, clockwise>

- As you move down more great photography is revealed, using subtle parallax scrolling to bring the shots to life
- Information on Life Fitness products is provided via rollover panels leading to additional pages and video demonstrations
- Visitors can claim prizes by submitting videos of their own gym clubs and fitness regimes
- A very concise section for latest news, videos and related articles offers a deeper level of content to users

<Below>

- Avenir 35 Light by Adrian Frutiger is the typeface of choice across the small amount of page text

abcABC
1234567



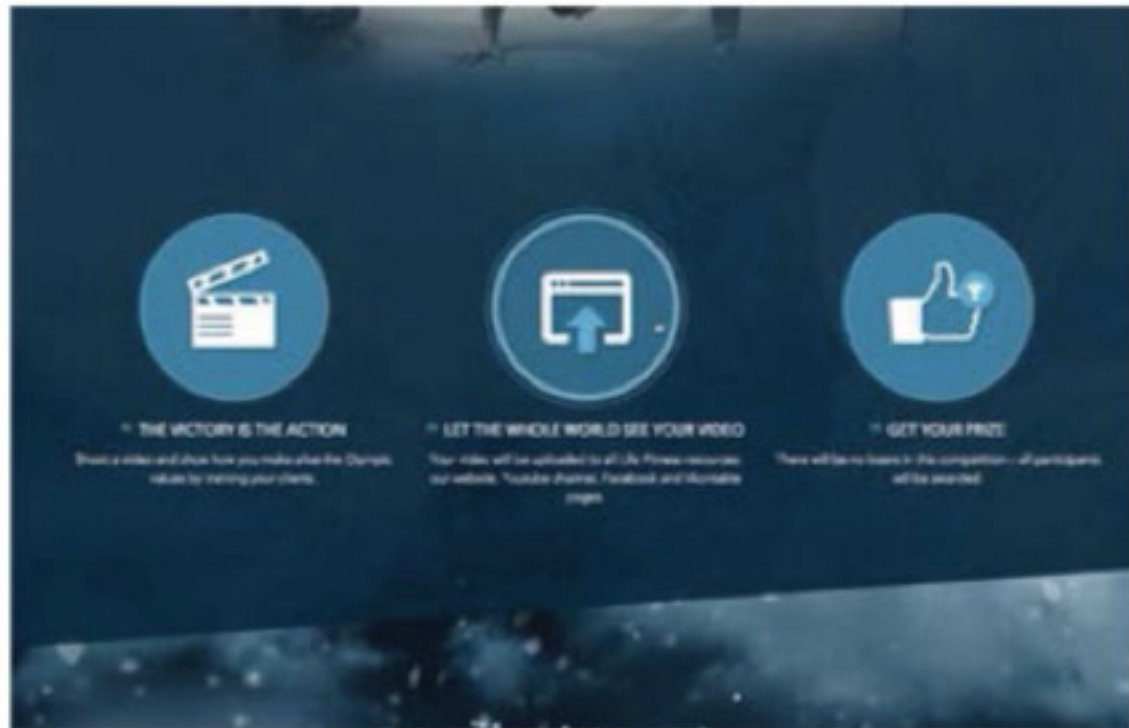
Build animated and responsive CSS buttons

Full code found on the resource CD

The team at Green Chameleon explain how to style dynamic icon buttons that behave wholly responsively across modern browsers

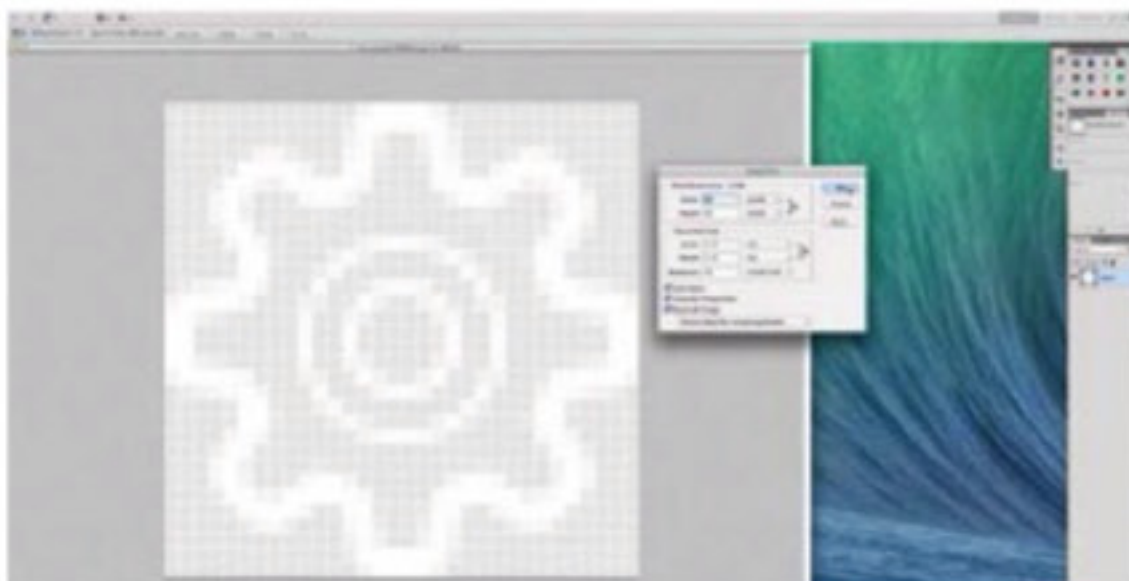
01 Responsive icon button

Inspired by similar examples found on the featured site, we'll show you how to build a responsive animated icon button. Compatible with all modern browsers and IE9+, additional fallbacks for other browsers can be simply implemented. The full code can be found on the resource CD and at bit.ly/18aLoVS.



02 DOM element

We begin by putting our icon into the DOM of our HTML page. This is simply a content box <div> with a link inside containing an SVG image. We've used an SVG to make it respond nicely, but this could be a PNG file if required. The content box CSS class resizes the element to 50% of the document width.



03 Style the button

The button has a border and inner shadow, which fades in later, both created using multiple box-shadows. A third outer border is created using an absolutely positioned pseudo-element as we want a transparent gap between. The button is kept responsive while retaining a perfect circle shape by using a percentage value for its width, zero height and a percentage value for padding.

```
001 .icon {
002   -webkit-transition: all 0.4s ease;
003   transition: all 0.4s ease;
004   display: block;
```

```
005   position: relative;
006   width: 35%;
007   height: 0;
008   padding-bottom: 35%;
009   margin: 0 auto;
010   background: #3480a3;
011   box-shadow: inset 3px 2px 6px
    rgba(0, 0, 0, 0), 0 0 0 3px #6ca4bd;
012   border-radius: 50%;
013 }
014 .icon:before {
015   -webkit-transition: all 0.4s ease;
016   transition: all 0.4s ease;
017   content: '';
018   position: absolute;
019   top: -8px;
020   left: -8px;
021   right: -8px;
022   bottom: -8px;
023   border: 1px solid #316480;
024   border-radius: 50%;
025 }
```

04 Style the icon

The icon itself needs to be centralised while still remaining responsive. Making the width a percentage value means it will resize with the button itself. It is then rendered centralised via absolute positioning and by translating it to 50% of its own size within a transform.

```
001 .icon img {
002   border: 0;
003   position: absolute;
004   top: 50%;
005   left: 50%;
006   width: 70%;
007   -webkit-transition: all 0.4s ease;
008   transition: all 0.4s ease;
009   -webkit-transform: translate(-50%,
    -50%);
010   -ms-transform: translate(-50%,
    -50%);
011   transform: translate(-50%, -50%);
012 }
```

05 Add hover styles

To add animation effects we darken the background and fade in the inner shadow, while widening and expanding the button borders. At the

same time, the icon image is set to shrink in width by 64% during mouse hover. You can obviously use your imagination to apply more style tricks as required.

```
001 .icon:hover,
002 .icon:active {
003   background: rgba(52, 128, 163,
    0.7);
004   box-shadow: inset 3px 2px 6px
    rgba(0, 0, 0, 0.25), 0 0 0 5px
    #6ca4bd;
005 }
006 .icon:hover:before,
007 .icon:active:before {
008   top: -12px;
009   left: -12px;
010   right: -12px;
011   bottom: -12px;
012   border: 3px solid #316480;
013 }
014 .icon:hover img,
015 .icon:active img {
016   width: 64%;
017 }
```

06 A pronounced effect

When it comes to larger screens, we would desire a more pronounced animation effect. This can be achieved by adding a media query to our CSS with a minimum width of 768px, supplying new style properties based more relatively to those target devices.

```
001 /* Greater animation for larger
    screens */
002 @media (min-width: 768px) {
003   .icon:hover,
004   .icon:active {
005     box-shadow: inset 3px 2px 6px
    rgba(0, 0, 0, 0.25), 0 0 0 10px #6ca4bd;
006   }
007   .icon:hover:before,
008   .icon:active:before {
009     top: -20px;
010     left: -20px;
011     right: -20px;
012     bottom: -20px;
013     border: 4px solid #316480;
014   }
015 }
```




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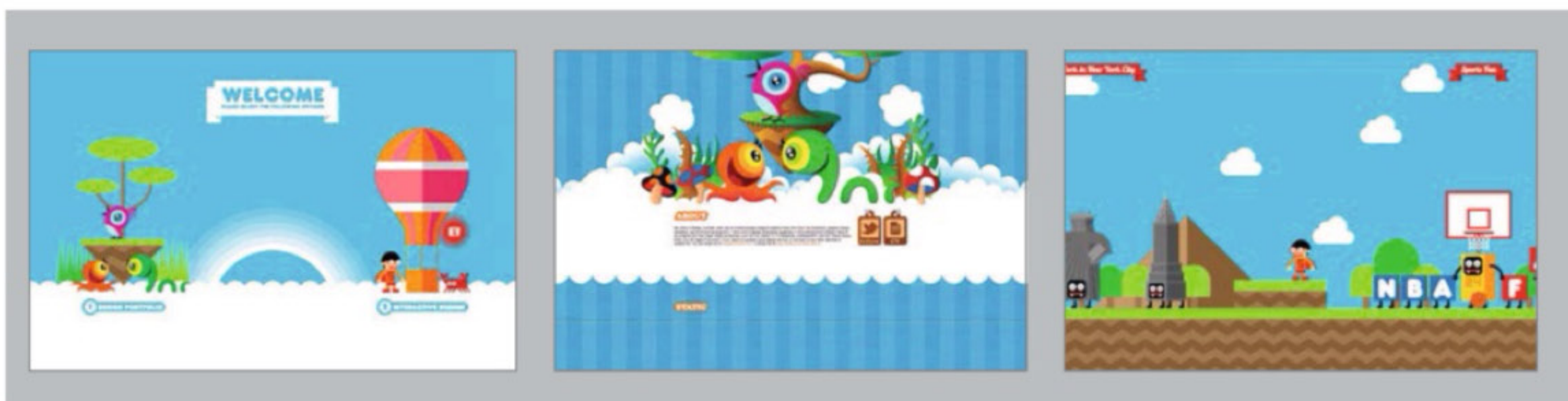
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<Above>
 • With visuals inspired by popular platform games, this is one online résumé potential clients or employers won't forget



<Above>
 • The main dotcom offers you a choice between viewing Robby's design portfolio or the dynamic interactive résumé

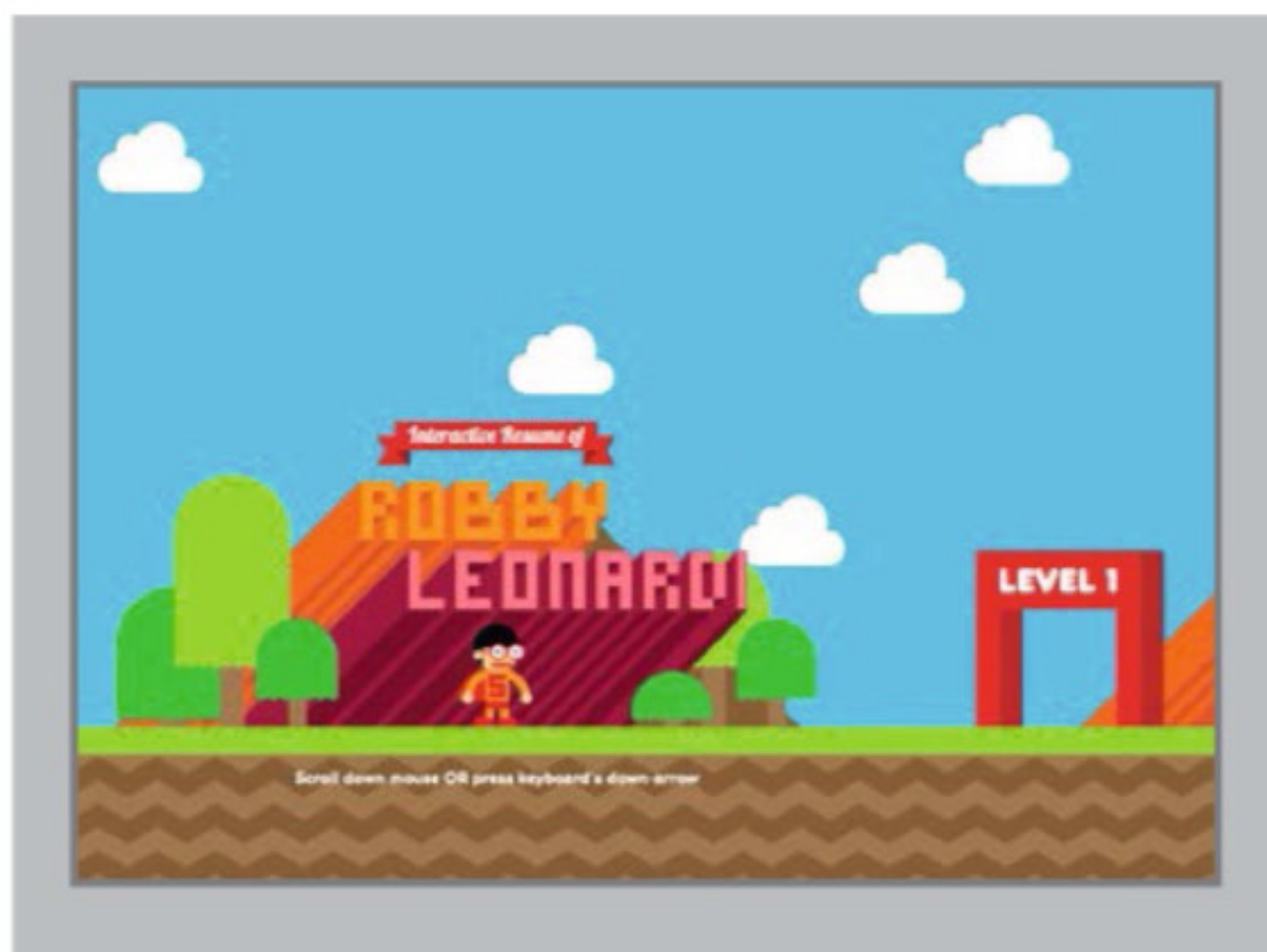
<Above>
 • Robby's portfolio is more static in approach but still shows an affection for vibrant character artwork

<Above>
 • However, a colourful personality is allowed to flourish when the scope for the site increases in ambition with the résumé

Robby Leonardi

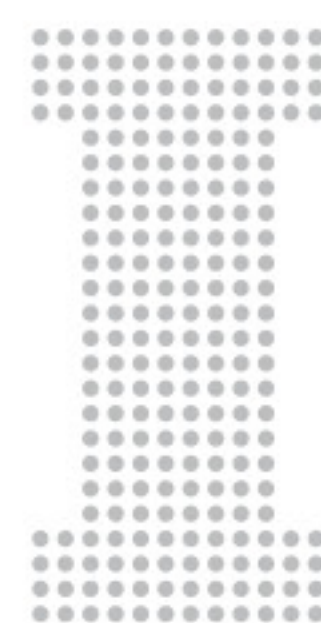
www.rleonardi.com

Development technologies HTML5, CSS3, JavaScript/jQuery



Designer **Robby Leonardi**
www.rleonardi.com

If selling your web skills online is hardly child's play, here's one interactive résumé that purposefully proves the exception



In fact two sites in one, this URL for digital designer Robby Leonardi provides a nice contrast in ability and ambition. Moving from an older design portfolio still boasting enough to impress, the real highlight becomes Robby's more contemporary interactive résumé. Deriving

direct inspiration from platform video games such as the iconic *Mario Bros.*, we encounter a wildly colourful and playfully engaging effort. Combining cutesy graphical work with admirably robust web coding, the site speaks volumes for the designer's skill and experience, even if your

attention is distracted away from the CV information steadily revealed throughout.

"I wanted to make a fun interactive website, so I decided to give my résumé a game theme, despite the two things being very different," Robby explains. "After much thought, I came up with an interesting solution to combine them. In this interactive résumé, the game enemies would 'help' the main game character by revealing content. I also used the game levels to form the sections within the résumé, such as Level 1 (ground) showing the 'About' section, level 2 (underwater) showing the 'Skills' section etc. In terms of tools I used HTML, CSS, JavaScript, and jQuery to build the site. They are web standards nowadays, and I also wanted to see my website on Apple mobile devices."

ABCABC
123456789

<Above>

• Frankfurter by Alan Meeks and Nick Belshaw is the gloriously rounded custom font used throughout

“I wanted to make a fun interactive website, so I decided to give my résumé a game theme despite the two things being very different”



Animating the Robby sprite in the résumé

Full code found on the resource CD

Robby Leonardi describes the core coding functions deployed on his Interactive Résumé to shift the page and animate the character sprite

01 Fixed-position #screen

In our page CSS we must first set a fixed position, 100% sized <div> element. This will occupy the whole of the browser and will form the area within which all animation takes place. The animation in this example requires jQuery and jQuery UI libraries along with a number of HTML elements. Consult the step code on the CD for full listings.

```
001 HTML:
002 <body>
003 <div id="screen">
004 ...
005 <div id="robbly-container">
006   <div id="robbly-frame">
007     <div id="robbly-sprite"></div>
008   </div>
009 </div>
010 CSS:
011 #screen
012 {
013   position: fixed;
014   width: 100%;
015   height: 100%;
016 }
```

02 Set document body height

In our custom JavaScript, it is necessary to add some height to document.body so the user can scroll the webpage vertically via mouse. Since the background <div> (backgroundDiv) will be horizontally shifted when the page is scrolled, we should sync the height of document.body to the element's width. This way when the user scrolls the webpage to the bottom, it will also show the rightmost side of backgroundDiv:

```
001 function setDocumentBodyHeight()
002 {
003   var documentBody = document.body;
004   var documentBodyHeight =
backgroundDiv.offsetWidth - screenDiv.
offsetWidth + screenDiv.offsetHeight;
005   documentBody.style.height =
documentBodyHeight + "px";
006 }
```

03 Detect vertical position

The next stage is detecting the webpage vertical position when the mouse is scrolled. We use document.

documentElement.scrollTop for IE and pageYOffset for other browsers. We then assign that value to a pageVerticalPosition variable. We also need to restrict the value of pageVerticalPosition with several conditionals so it will not exceed min or max limits:

```
001 {
002   previousPageVerticalPosition =
pageVerticalPosition;
003
004   if (/MSIE (\d+\.\d+);/.
test(navigator.userAgent)) //internet
explorer
005 {
006     pageVerticalPosition = document.
documentElement.scrollTop;
007 }
008   else //other browser
009 {
010     pageVerticalPosition =
pageYOffset;
011 }
012   if (pageVerticalPosition < 0)
013 {
014     pageVerticalPosition = 0;
015 }
016   if (pageVerticalPosition >
backgroundDiv.offsetWidth - screenDiv.
offsetWidth)
017 {
018     pageVerticalPosition =
backgroundDiv.offsetWidth - screenDiv.
offsetWidth;
019 }
020 }
```

04 Shift the background

The global variable pageVerticalPosition is used to shift the left position of the 'background' <div> element (backgroundDiv). Shifting the background image to the left creates an illusion that the character sprite is continuously moving forward despite it remaining in the centre of the screen.

```
001 function shiftBackground()
002 {
003   backgroundDiv.style.left = (-1 *
pageVerticalPosition) + "px";
004 }
```

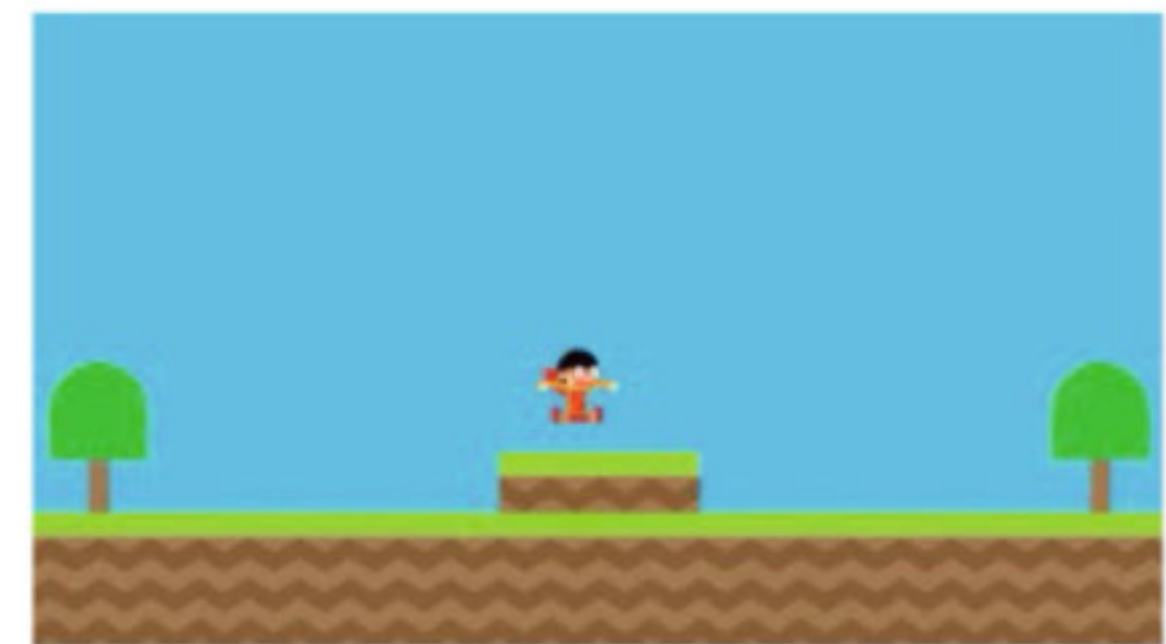
05 Running animation

The Robby sprite animates by calling a shiftRobbySprite() function every 210 milliseconds. It uses a counter variable and the percentage module operator in order to recalculate and shift the background sprite map within the robbly-sprite (robblySpriteDiv) element. The sprite map is a transparent PNG showing Robby in every pose, with the second and third from the left used for running. Each pose has a width of 200 and by flicking between them quite rapidly we are able to create the illusion that the Robby sprite is actually moving.



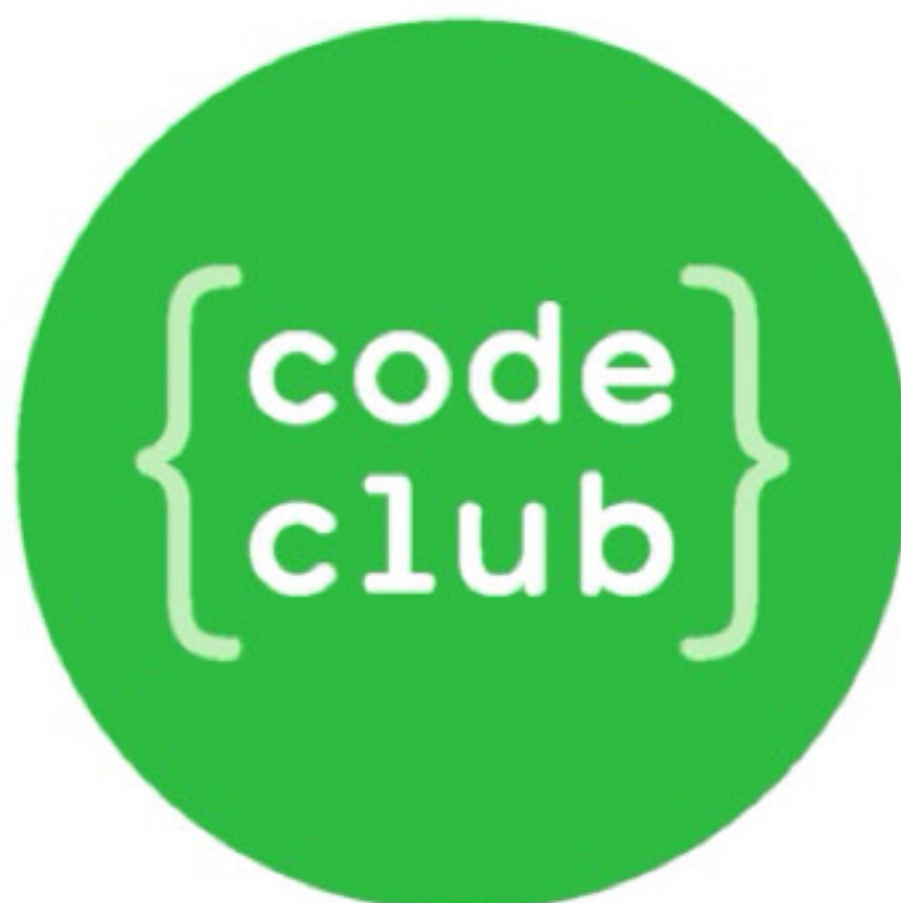
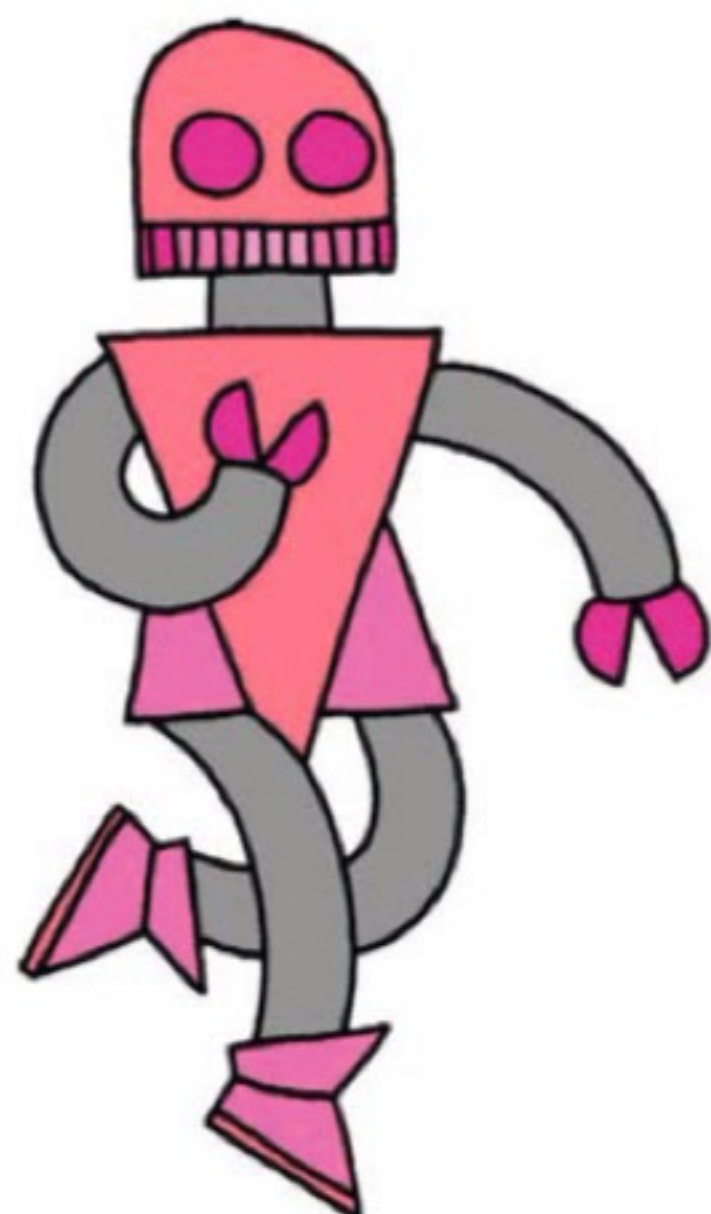
06 Jumping animation

Robby's jumping animation is simple enough, and is performed using jQuery UI (Effect Core). The jump() function will be called if Robby's previous horizontal position was not between the elevation element's left and right edge, but currently is within that range. Once it has been called, it shifts up the robbly-container (robblyContainerDiv) vertical position to 310 pixels above the ground in 300 milliseconds.



07 Falling animation

Once the jump() function has ended, the jumpDown() function will be called if Robby's horizontal position is between elevation's left and right edge. This will make Robby land on the elevation. If Robby's horizontal position is not between elevation's left and right edge, a fall() function will be called, with Robby landing on the ground. This fall() function uses jQuery UI (Effect Core) to animate the robbly-container (robblyContainerDiv) vertical position back to the ground within 300 milliseconds.



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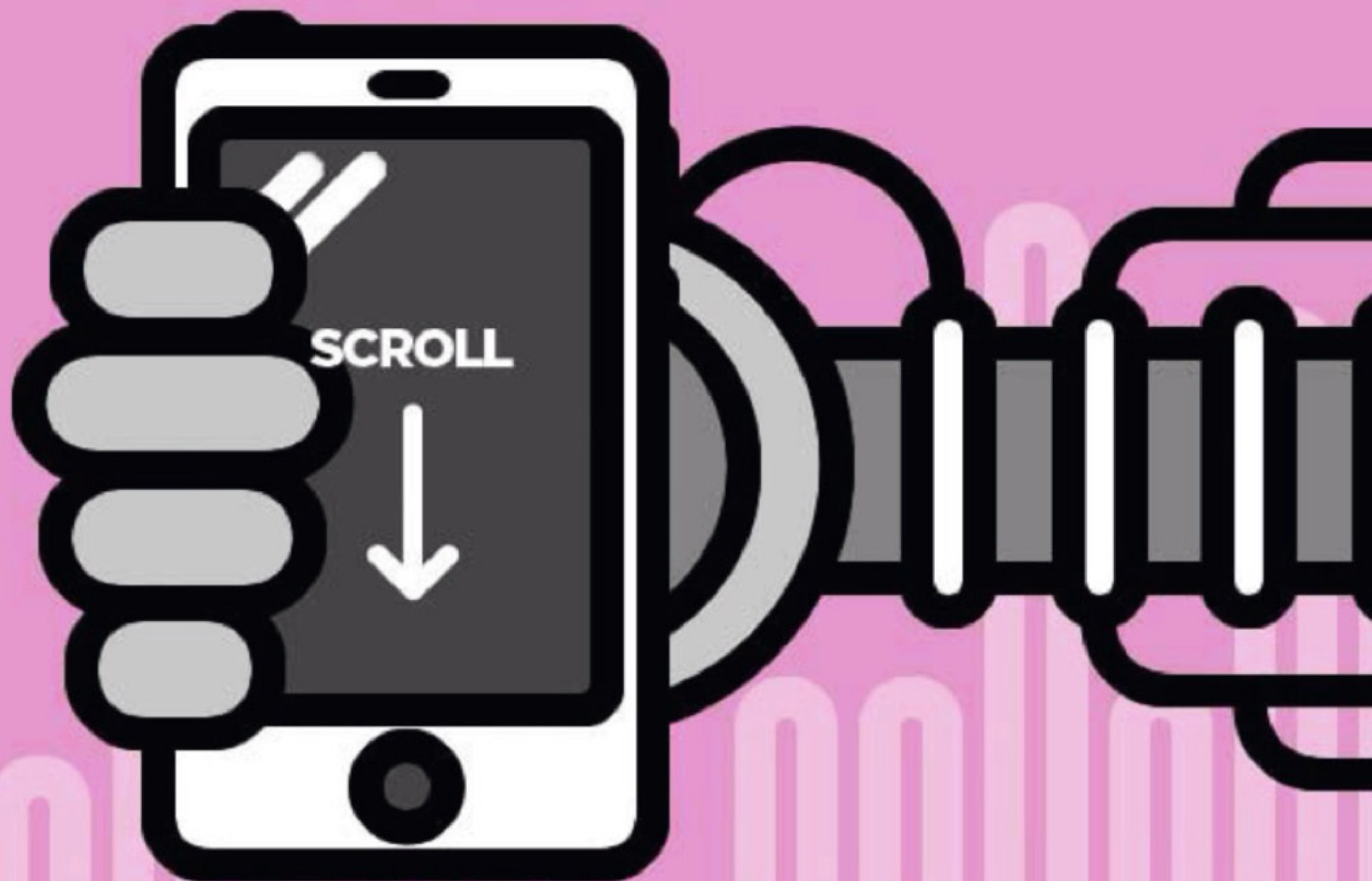
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The Future Of **MOBILE PHONES**

Mobile phones sell themselves these days, but giving users a novel reminder of what they can do never hurts. Here's how agency Epiphany hooked up with retailer E2Save to demonstrate mobile features online



SHARE

When it comes to mobile technology, we live in an era where things are moving very fast. Smartphones are essential fashion accessories, digital appendages for most people that they rely on for work, rest and play. This constant demand from consumers for improved features and handsets represents big commercial business. It drives the industry forward at a rate of knots, expecting customers to keep up with a hardware and software constantly evolving.

This is precisely where this month's featured site comes in, designed purposefully to communicate current and forthcoming trends in mobile tech. Commissioned by mobile retailer E2Save, the project is a rich and vibrant experience for showcasing the most cutting-edge handset features. Known as The Future of Mobile Phones, this vertical scroll-driven design was built by the talented team at multi-award winning agency Epiphany in just three weeks. Founded in 2005 and with offices in Leeds, London and Sydney Australia, Epiphany specialise in SEO, PPC and website development across a diverse client base. With a portfolio spanning work for high-profile brands such as Debenhams, Paul Smith, Pets At Home and

Virgin Holidays, they offer a multi-disciplinary approach well suited to innovative product promotion. "Successful marketing is all about looking for opportunities to tell the right stories to the right people," they explain. "This project was a great opportunity to look into the latest innovations and technology that could be making an appearance on smartphones in the not too distant future." With so much content already out there, the big challenge would be in delivering a unique solution. It was this challenge of telling a compelling story in a memorable way that made picking up the call so irresistible. "Ultimately we wanted to create a story for gadget fans to share." So let's share how that story was told!

Project **The Future of Mobile Phones**
Web bit.ly/1cWZjMA
Agency **Epiphany**
Web www.epiphanysearch.co.uk

Duration **3 weeks**
People involved **4**
Total hours **N/A**
Project budget **N/A**





Rather nicely to begin, one of the key drivers of this project resonated already with those who would eventually be heavily involved in the project. Just as E2Save was hoping to stimulate a tangible interest within the market for mobile phones, so could Epiphany bring their own interest as consumers to the table. "I guess everyone has some interest in mobile phones and technology even if they're not fully aware of that", starts senior designer on the project Dave Ellis. "We all depend on our smartphones on a daily basis and working in this industry you find it's important to keep up with technology. I always saw this as a really interesting project from that perspective in terms of 'How do we make a piece of content stand out in the rapidly evolving tech sector?'. That was always the first challenge in my mind."

This keenness for fresh ideas and originality dovetailed perfectly with a client open to exploring new ideas. Known as an innovative E2Save retailer, the brief was always for promoting an engaging and highly visual experience that would beg to be shared amongst sites, publishers, bloggers and stakeholders.

"I remember very early on I came up with the concept of keeping the phone on screen throughout the piece and moving everything around it to form new scenarios," Ellis continues. "This is almost a hat tip to the fact that it's rare to see people without a phone in their hand these days, the phone is almost an ever present in our lives. Initially I drew up some sketches to get my thoughts down on paper and really to see if it was viable. I always

litter my sketches with notes as I go, these are more notes for myself than anything though and if I'm honest I'm not sure if they would make sense to anyone else! When the times comes to convey my ideas to the client though they prove themselves invaluable."

These early concept sketches would form a useful route into visualising an approach for a pretty short-scale project. What was evidently a fairly reactionary idea for moving content through a journey in this way, would in turn influence the approach of how it might be built.

"As a developer my first perceptions of this project was how the site was to be implemented from the designs and brief that I was handed," recalls front-end developer Thomas Smith. "It was apparent from the early stages that the site was to be a parallax site. This excited me in that I had always wanted to create a parallax site but as this was my first parallax site I decided to do some research to see what libraries were available to help me to achieve this functionality and this is where I found Skrollr. At first I thought it was too confusing and was swaying on the idea of looking again but after a day or two of having a play with Skrollr I quickly learnt how to implement the code to get the results I would need."

Even throughout these early forays into a likely solution, Epiphany worked very closely with the client. In fact, having such a strong vision from the outset was pivotal to establishing trust from E2Save throughout the process. Most agencies agree that a tight working relationship is essential in delivering a project that fulfills

SPEAKING OF SUCCESS

THE TEAM GIVE THEIR VERDICT

Raising the question of project success makes even the biggest agencies go coy and it is early days to provide a definitive answer. The live site looks great and certainly answers the call for selling mobile technology in an engaging way. So given the reaction from client, customer and industry alike, how does the team generally feel about the end result they produced?

"There are a lot of ways to judge the success of the project and at this stage it's too early to say on this one as it's currently still being promoted but the response so far has been very good", senior designer Dave Ellis beams.

"Internally we're really pleased with it and so is the client - plus it's been picked up by a number of sites and that can only be a good thing

"Obviously the fact that we're talking to you about it is another reason for us to be pleased. More and more importance is placed on social activity and this is something we try and engage with. You know that you've hit upon a popular idea when people start sharing it and saying positive things about the creative and the client." For now then at least it seems there are no crossed wires when it comes to the positive reception for The Future of Mobile Phones. Give it a visit yourself, call your friends and share the experience with them. You won't regret it.

Working in this industry you find it's important to keep up with technology

A JOURNEY THROUGH THE FUTURE OF MOBILE PHONES

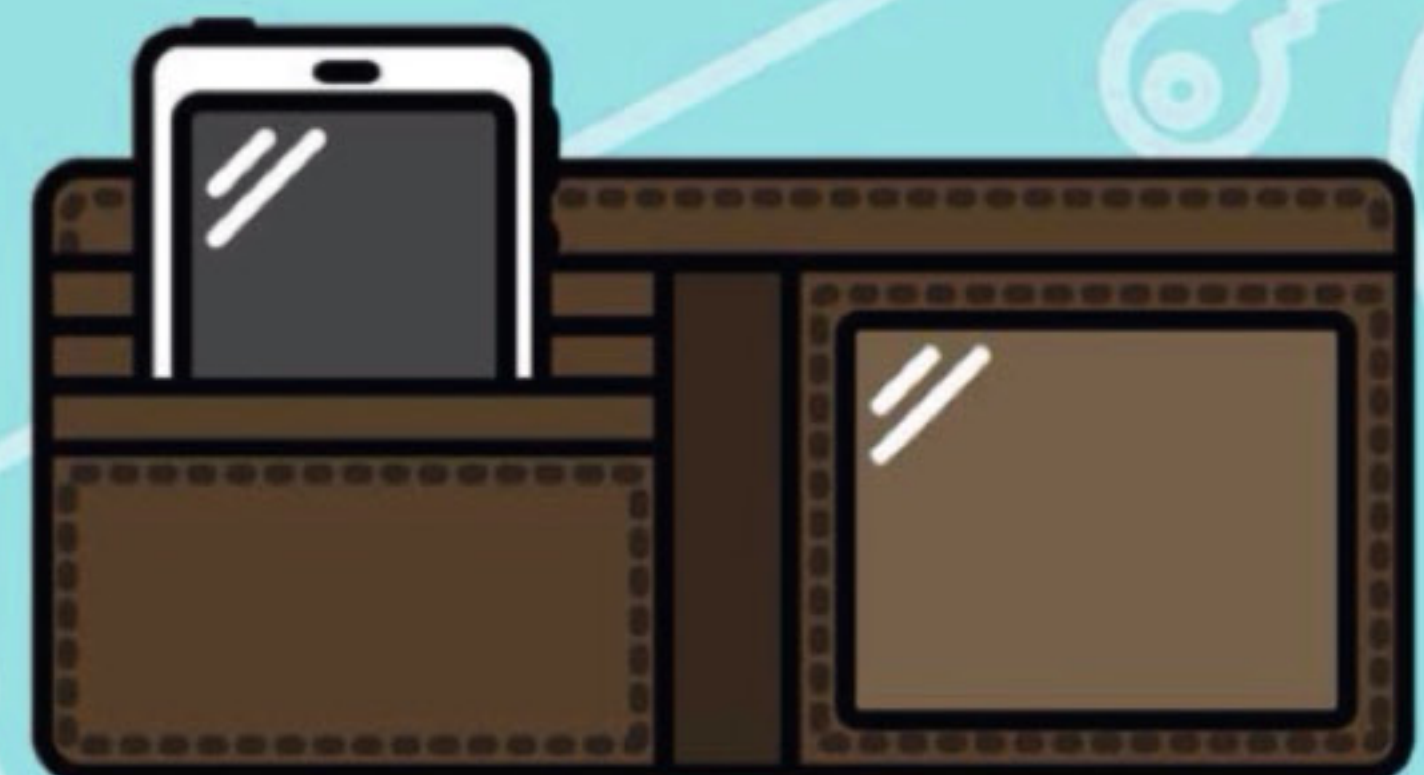
The Future Of MOBILE PHONES



IT SEEMS LIKE EVERY MONTH A NEW SMARTPHONE IS RELEASED, BOASTING A HOST OF BRAND-SPANKING-NEW FEATURES THAT WILL "CHANGE OUR LIVES FOREVER". TO MAKE SURE YOU'RE AHEAD OF THE CURVE, READ ON TO FIND OUT SOME OF THE INNOVATIONS THAT ARE ABOUT TO DROP.

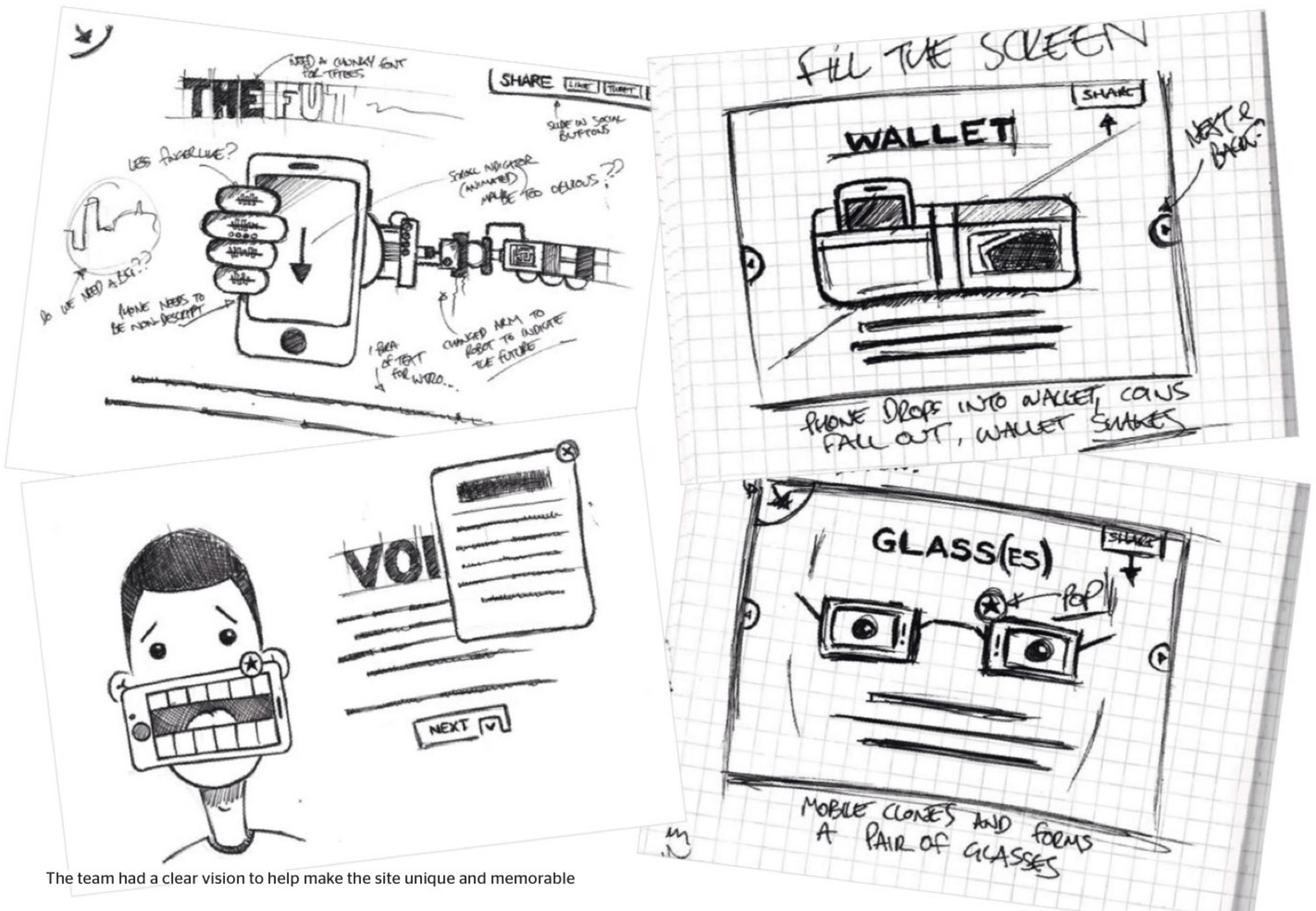
1

Wallet REPLACEMENT



The idea of using your phone as a bank card replacement has been around for a while, and now the technology looks ready to go. You could then ditch your wallet completely, and use your phone for everything from phone calls to high-street shopping.

2



The team had a clear vision to help make the site unique and memorable

SHARE

Voice
CONTROL

87%

87% of iPhone 4S users use Siri at least once a month - 55% are satisfied with the service (May 2012)

According to Apple, its own recognition service Siri "does what you say" and "understands what you mean", but anyone who has used it will be well aware of its limitations.

New software is being developed, however, which will interpret diction and syntax with greater accuracy, meaning in the not too distant future you may be able to dictate texts without any embarrassing slip-ups.

3

SHA

Flexi
SCREENS

In January 2013, Samsung unveiled a smartphone prototype with a flexible display. While such displays had been rumoured for some time, the fact that a big player like Samsung felt ready to move into this market showed what a big deal this technology could be.

Nokia and Apple are also expected to make moves towards this market too with the Morph and iWatch.

4



THE SKROLL TAKES ITS TOLL

With a parallax structure at the forefront of the design, the team settled on using the pre-built JavaScript library Skrollr.js: "It was fairly evident that the piece lent itself to using the Skrollr.js library, which is incredibly useful, but at this stage it is a bit cumbersome in its implementation in that all the functionality of Skrollr is written directly into the HTML," says front-end developer Thomas Smith. "The biggest challenges were all related to smoothly introducing Skrollr into the site while keeping the site optimised. The functionality of Skrollr comes by setting data variables with the styling that is required directly into the HTML. These variables are recognised as positions by Skrollr, so when the user is scrolling down the page and one of the data variables matches the current page top position, the styling matched to that data variable is activated. This means there is a fair amount of duplicated code to stop the animations continuing while the user scrolls."

Senior designer Dave Ellis agrees that the scroll aspect was the most troubling. "While Thomas did the bulk of the coding, I took the opportunity when the project was near completion to jump into the code and make minor tweaks. The challenges I experienced were similar to Thomas, primarily getting the most out of Skrollr while adhering to the way Thomas had written the code."

the brief – and this one was no exception. "E2Save is a great client and they trust us to develop ideas that are going to work for them", Ellis confirms. "We used sketches, rough style concepts and animation examples to show them our ideas, and the execution of the project. Beyond presenting the initial concept and style, we were trusted to get to work, and this is fairly typical of an Epiphany campaign. Our model differs to that of the normal agency model because more often than not we're solving problems for our clients, and that often means devising the brief collaboratively rather than being handed them as a finished article from the client."

Moving then from a brief to initial concept work, the team shared the responsibility for generating ideas.

add some humour. For example, where we add teeth to the phone to form the mouth on the voice control screen and where we switch the mobile to become a pair of glasses. We felt this style would allow us to do more with each section, to make each section that little bit more fun, that little bit more interesting. This is fairly rare but on this particular project all the graphical work was complete before any of the development began. There were a few factors that influenced this but ultimately it's quite a simple design and it just flowed when I started it. Every designer will have experienced this at some point in their careers, where some projects just flow – they feel very easy to design once you have the initial style down and this was very much one of those."

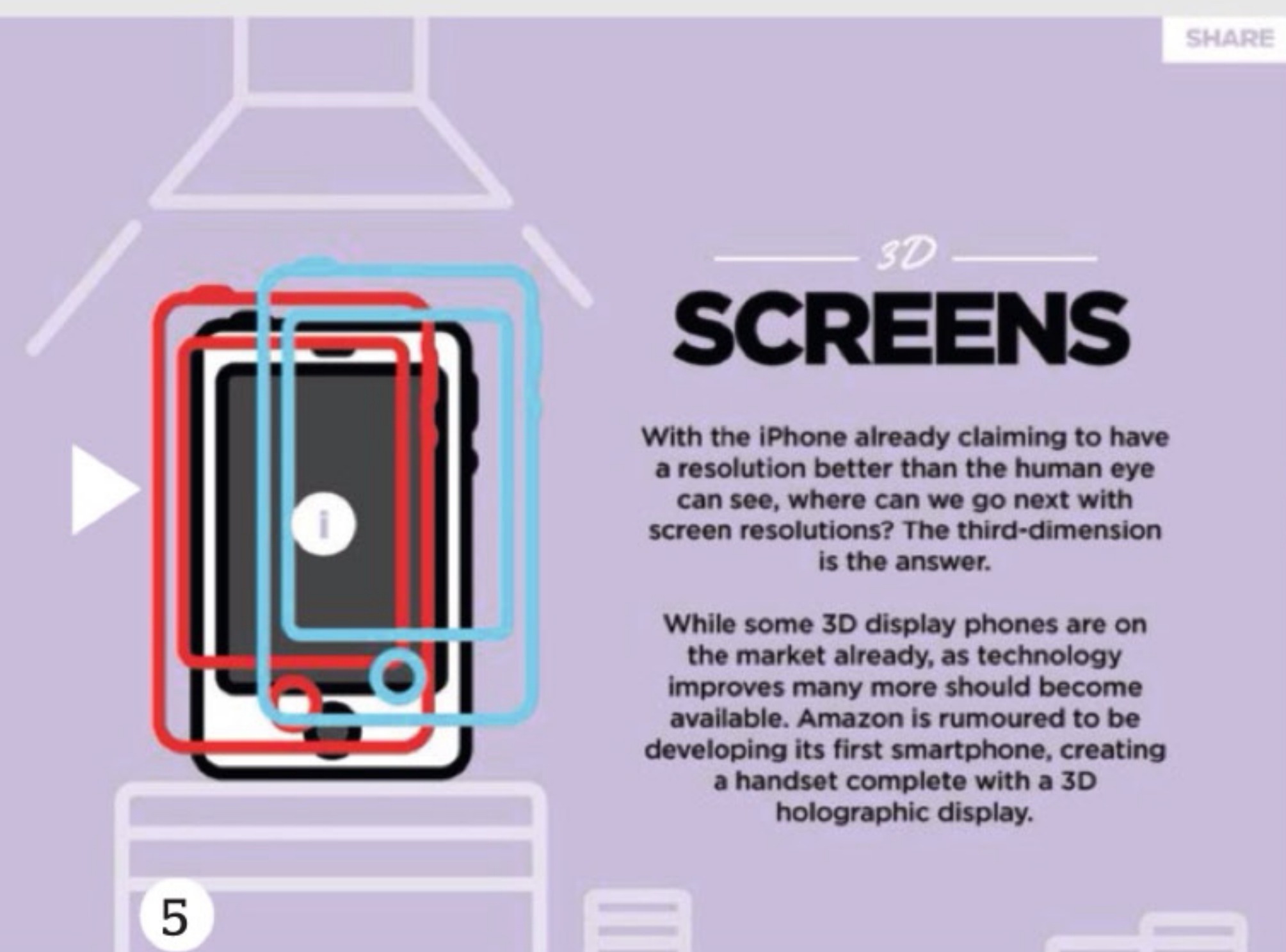
✿ We often devise the brief collaboratively, rather than being handed a finished article ✿

Creative ideas had still to be justified commercially to the client, defined by a clear goal and aim within a larger strategy. Much of this is led by data analysis of consumer behaviour to settle on a brand message people will respond to at the right time. Being very visual and dependent on fairly rapid impact, the designers engineered originality by injecting a sense of playfulness that is rarely seen on similar sites.

"Initially it was all about finding the right style for the piece, we wanted something distinct to make the project memorable and differentiate it from other pieces in the same sector," continues Ellis. "A lot of the content that is centred around mobile phones shares the same look and this was instantly something that I wanted to avoid. In the end we went for an illustrated style that would allow us to

On the flip side, the back end coding work was all about enabling 'flow' within the browser. This would present specific challenges we'll hear about elsewhere, but it would facilitate the quirky animations to trigger as the user scrolled down the page. The JavaScript plug-in Skrollr.js, freely available on GitHub, was chosen here to provide platform compatibility and optimisation. This standalone method, requiring no jQuery, would need its own workarounds to perfect the parallax operation before launch. This represented the toughest test for designer and developer alike in contrast to a stress-free handover.

With so much testing done as the solution is being built, Epiphany are experienced enough to carefully pre-empt problems before they occur. "In terms of getting to the project to the client, it's a relatively straightforward



THE BIG QUESTION...

ANDROID or iOS?

WE ASK THE TEAM WHICH OPERATING SYSTEM THEY PREFER ON THEIR MOBILES



DAVE ELLIS,
SENIOR DESIGNER

"I've never owned an Android phone but I do like the operating system - either or for me, I'm not tied to either."



JORDAN PECK,
DIGITAL MARKETING EXECUTIVE

"Android devices have more customisation options. I believe if you want to make a phone your own, Android is the way to go."



THOMAS SMITH,
FRONT-END DEVELOPER

"Android. I like the fact that it's not locked down. It has more possibilities, and it feels less restricted."



process, obviously internally we develop the project on our own servers while matching the clients server environment as closely as we can. This way there aren't any surprises when we move the project to its live location. The design and dev team have a very close relationship and are constantly looking at each others work, making suggestions to improve pieces, and for that reason our handovers tend to be very smooth."

Of course a big part of a digital project going live is promotion and raising awareness. Given Epiphany's

skillset as an agency they were ideally placed for this aspect, which was massively important to what the site was trying to do. Throughout everything the site was to be a catalyst for sharing the experience amongst the social media community and beyond.

"The promotion strategy of the Future of Mobile Phones piece was planned in advance to help ensure we had evaluated the target audiences and accurately measured the relevancy of the piece," as digital marketing executive Jordan Peck testifies: "The final design of the

piece intended to target multiple online communities by combining flowing design with in-depth information and detail. As we have seen from previous campaigns, the social media element of a campaign is vital. Overall the aim was to create a natural cycle via social media shares, coverage and influential stakeholders engaging with the piece. By identifying a group of 'seed' sites, and combining an informed strategy for targeting social media and industry influencers, we hoped to generate a huge buzz and discussion around the piece and E2Save as a brand."

Augmented REALITY



Augmented reality is big news at the moment, thanks to the imminent Google glass device. However, many of this generation's smartphones are using this technology right now - with mixed results.

It allows the user to hold their device up to their surroundings, overlaying additional information such as bars, coffee shops and points of interest over the actual image.

7

Wearable TECHNOLOGY



We have mentioned the Google Glass already, but it's not the only wearable technology coming soon.

Reports suggest that apple has filed to trademark the iWatch name, sending the rumour mill into overdrive accordingly. Obviously as we haven't had the big "Keynote" unveil yet, we can't say for sure what the iWatch will be. Will it work on its own or alongside existing ios devices? Keep your eyes peeled!

8

NEW HOS

MAXIMUM FLEXIBILITY AND PERFORMANCE

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MORE SAFETY: SECURITY SCANS

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The design kingdom

North Kingdom has grown to be an internationally renowned centre for cutting-edge digital design that pushes the boundaries of the user experience



North Kingdom was born on a football field. The co-founders of the agency Robert Lindström and Roger Stighäll had played football together since they were children. Their initial plan was to build a small agency that would work with a network of talented people, but it didn't quite turn out like

that. Today, North Kingdom has approximately 50 employees working across two offices in Sweden, and a newly opened base in Los Angeles, California.

Both the co-founders of North Kingdom, Robert Lindström and Roger Stighäll both worked for Paregos – a well-known and respected agency in Sweden. “I worked as art director at Paregos for about five years, with Roger there for about three years,” Robert explained. “Like a lot of designers we wanted to be more creative and have much more control over the work we were doing, so in 2003, we founded North Kingdom.

“As Roger and I met regularly for a game of soccer, we always talked about work and how much better this could be. The jobs we had at Paregos were fine, but we always talked about what other types of work we could do if only we had more control. We soon realised that we wouldn't be able to get that control by working for an agency, so we started to plan how we would start our own.

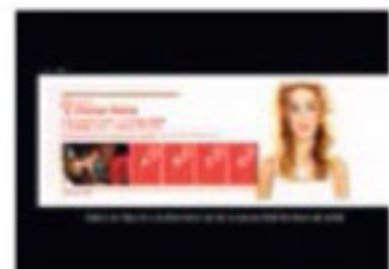
“Our initial plan was not to build a big agency, as North Kingdom has become. We thought having a small agency that used a network of professionals that could work with Roger and I would be the best way to develop a service that would enable us to do the kind of work that inspired us. As it's turned out, the work we have been doing over the last decade has meant our agency has grown much larger than we both ever imagined from our early conversations on the football pitch.”



Rob (co-founder) and Marcus (creative director) take time out

North Kingdom timeline

Established 2003
Founders Robert Lindström and Roger Stighäll



Vodafone Future Vision becomes the world's most awarded site.

Number of employees
3

North Kingdom's Get the Glass project receives the Black Pencil award.



Number of employees
14

2003

Number of employees
2

Robert Lindström and Roger Stighäll found the company in Skellefteå, Sweden.

2004



2006

North Kingdom opens its brand new office in Stockholm.



2007

Number of employees
3

2008

Roger Stighäll, Robert Lindström and David Eriksson are on the 2008 Creativity 50 by Ad Age and Creativity.

industry insight

Robert Lindström, Co-founder



“Everyone that works at North Kingdom is here because they want to pursue their core interests. We don't want to ask them to work on a project that doesn't inspire them, as ultimately the completed work won't be as good as it could be”

Robert has a long career in interactive design – beginning like many others with Flash. One of his earliest pieces of work is still available. Mosquito (mosquito.paregos.com) was completed for Tomas Gylling and Swedish Television inw 1999. But it was three years later with the arrival of Designchapel that put Robert firmly on the design map. The traffic and acclaim that the site received was a clear precursor to North Kingdom.

The agency can now name some of the biggest global brands as clients with award-winning work for Disney, The Hobbit, Netflix and Only. Two Site Of The Year awards and two People's Choice Of The Year awards have been the result at FWA. Robert has also been juror for Art Directors Club (2007), The One Show (2009), D&AD Awards (2008 and 2012),

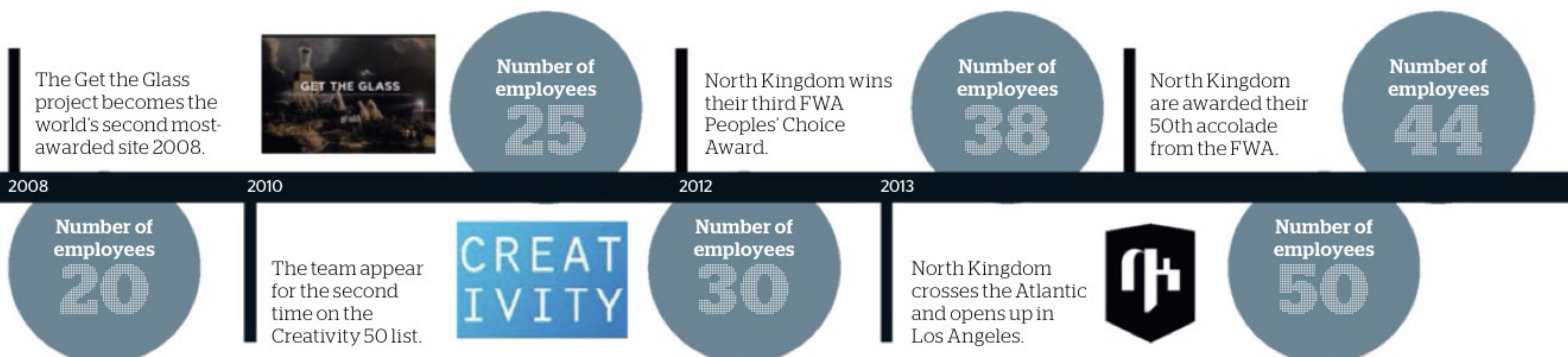
Guldägget (2012) and talked at D&AD President's Lecture (2011). He was featured in the Creativity Top 50 list of creatives in 2008 and 2010.

This raft of recognition has come about because North Kingdom is an obsessive agency. Detail and quality are words that come up often when describing how they approach each of their projects as Robert explains: “I tend to describe our approach as looking for work that gives us butterflies in our stomachs when we read the brief. When we started the agency, Roger was focused on the business side, where I looked after the creative aspects. So we have always had a good balance between the business side of the agency where we need to pay salaries, but not to the extent were the creative side suffers, which is where my focus is.”

☼☼ We look for work that gives us butterflies in our stomachs... but we have a good balance between the business and creative sides ☼☼



Creativity shines through all corners of North Kingdom's offices



Robert continued: "If we have that reaction to a new potential client, then we look at that proposal in more detail. We want to do work that not only meets the client's brief, but that also inspires and interests us as well. We always ask whether a piece of work will be engaging for the people working on it as well. In fact we like to ask everyone that would be involved what they think of the brief. If they are also excited, we know that the work will be better simply because we have had a good positive reaction to what we are being asked to create."

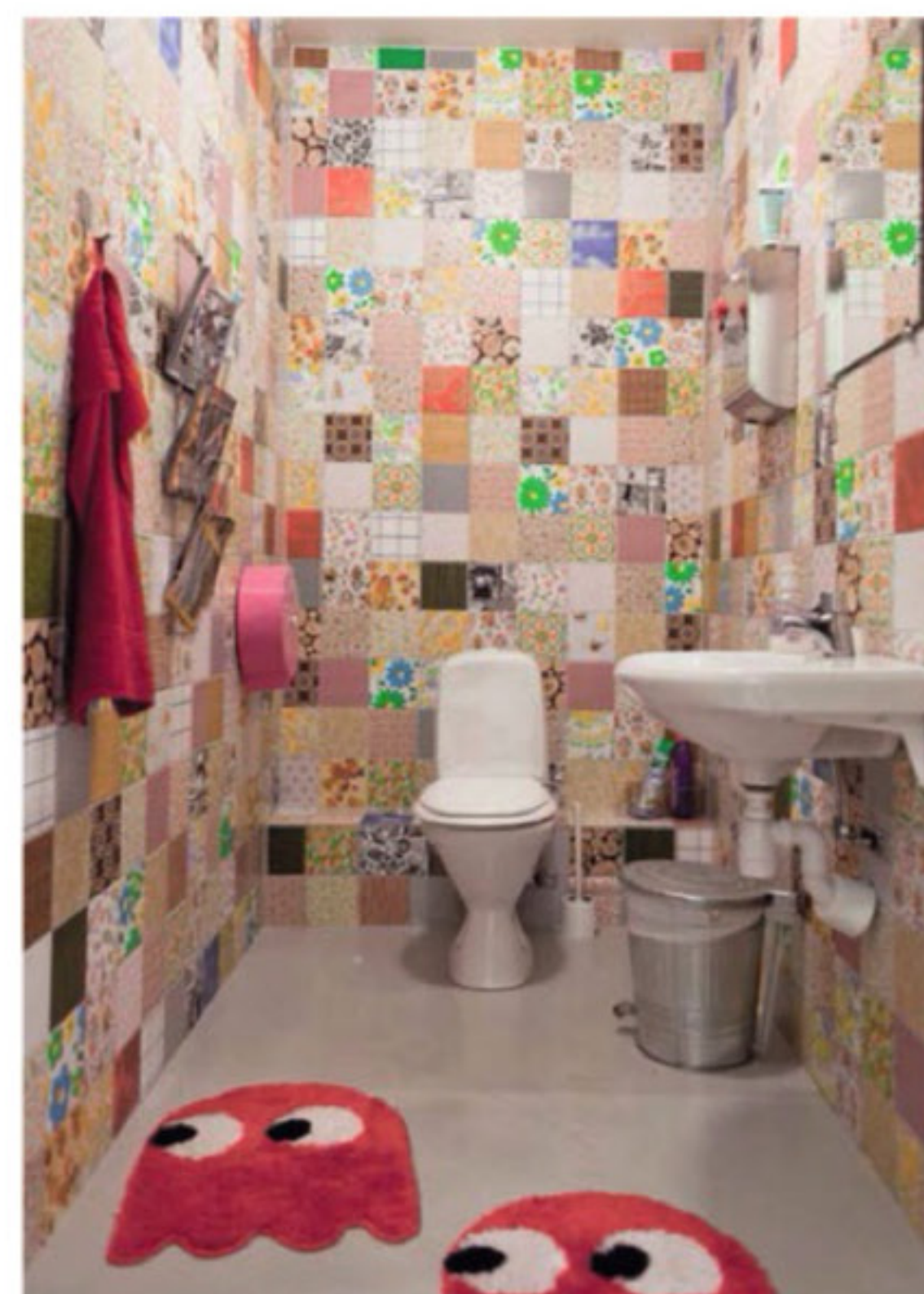
Marcus Ivarsson, creative director at North Kingdom also commented: "We also want to be an agency that leads in the creative and technical areas of design. Also, we think that the attention to detail that we always bring to bear on each projects sets us apart from other agencies that perhaps won't go the extra mile to deliver a world-class piece of work that is technically innovative and at the same time, offers something new as a creative piece of work."

"For us these two facets of every project are vitally important to get right, and we are prepared to spend the time to ensure that these two elements are as

good as we can make them. We like to say that there is love in every pixel. We want to be proud of the work that we do for each of our clients - it's fair to say that we are obsessed with the quality of the work we produce. Each of us won't stop until we have a piece of work we feel meets the client's brief, but is also as good as we can possibly make it."

Looking at the portfolio of North Kingdom, it's the diversity that stands out. "I think we have work that touches on every aspect of the digital field," says Rob. "This is deliberate on our part, as we want to work with a range of clients that offers us the chance to create new and innovative work. We are often asked to do some work that is similar to a previous job. We don't duplicate what we have previously done for the new client, as we don't see how this is creative or innovative. We will work with the client and understand what they liked, and look for ways we can create something new for them."

Many design agencies have a clear business model that they follow. New clients are evaluated against a checklist to determine whether the work on offer not only fits with the design ethos of their





<Above>
The interactivity was made to be unintrusive but still appealing to the target audience

THE LIBERATION

An interactive and shoppable road movie, made with Only Jeans and Uncle Grey

Only is a Danish fashion brand with a presence in over 26 markets across the globe, targeting girls between 15 and 25. North Kingdom was approached by their lead agency, Uncle Grey, and asked if they could help manifest Only's new brand approach and message 'Only Because We Can' and showcase the spring and summer collection 2012, through a highly entertaining and interactive film experience.

The brief focused mainly on how to tell the story about three girls living their lives to the fullest, crossing boundaries and serving as inspiration for the target audience and communicating the attitude of the brand. The outcome is an interactive film called the 'The Liberation' directed by Christoffer von Reis (bit.ly/18Rqwn5).

The interactive aspect is really important, where the users can play around with the film and at any point find out more about the clothes worn by the models, but in a non-intrusive way. At the same time, viewers can also be a part of the film and interact with key situations through out the film.

North Kingdom was the creative hub with the responsibility to outline, refine and execute the clients' original thoughts about the film. The project threw up a few interesting challenges, particularly regarding connecting emotionally with a picky target audience of young females who are used to dismissing brands on a regular basis online. Building on the classic road movie connotations without coming across as cliché was deemed important so that the audience engagement wouldn't be lost. On top of that, the products had to be featured in a non-intrusive way and not be distracting.

It was decided at an early stage that the story needed to be fun, engaging and to some extent relatable for the audience. Additionally, the tonality needed to have lots of romantic rebelliousness and be raw without being stiff, coming across as authentic instead of glossy. It was also important that the music experience wasn't compromised and the users had full control of the story, with the right amount of interaction also being part of it.

PARTNERS

• Agency: Uncle Grey • Director: Christoffer Von Reis, Camp David • DOP: Niklas Johansson, fsf, Artofficial Agency • Post production: Stopp

agency, but also that the work will be of value to the business and allow it to grow. North Kingdom is a little more flexible, as Marcus explains.

"With a lot of the work we do take on, we make a decision about whether to work with that client quite quickly. We don't generally have much in the way of strategic thinking about how a piece of work might help our business move forward. Everyone that works at North Kingdom is here because they want to pursue their core interests. We don't want to ask them to work on a project that doesn't inspire them, as ultimately the completed work won't be as good as it could be. Everyone has to have a personal investment in each project to ensure that it becomes the very best we can do. I think we have become known for this approach, as it comes out in the work we have completed for a wide range of clients."

❖❖ No one person has ownership over a project, as this can limit how creative the team can be ❖❖

For many agencies, how they approach their work has evolved over time. Robert outlined how North Kingdom approach their workflow: "We have a number of phases that each project moves through: The first is the discovery phase, followed by the definition phase, production phase and the deployment phase. This is probably quite typical for most agencies, but I think North Kingdom is different because of our flat organisational structure. We try and involve everyone in decision-making about a project, as everyone can come forward with their ideas from day one. No one person has ownership of any given project, as this can limit how a project develops and how creative the team can be.

"We do use a sort of agile working, but we approach each project as a group of creative talents that are trying to produce something together. We don't divide up a project into stages or components that individuals in the group then work on. We try and be much more flexible. If one component needs more time, then we allow this. Again, the obsession with detail and quality is what drives us – and because the team focuses on just one project at a time, they can direct their energy into one project and not be distracted by other projects."

One area that all design agencies have seen massive growth in is mobile. The smartphone and tablets have become ubiquitous and now form a central element of all digital design. Robert outlined North Kingdom's design philosophy: "We have been designing for the screen or over ten years now. The



A REAL-TIME COMMUNICATION GAME IN YOUR BROWSER, MADE WITH GOOGLE

www.cubeslam.com/nbscsy

Cube Slam is a video game that you can play face-to-face against your friends. It's a Chrome Experiment built using WebRTC, an open web technology that lets you video chat right in the browser without installing any plug-ins. That means you can quickly and easily play Cube Slam with your friends, no matter where they are in the world – and it's as straightforward as sharing a link.

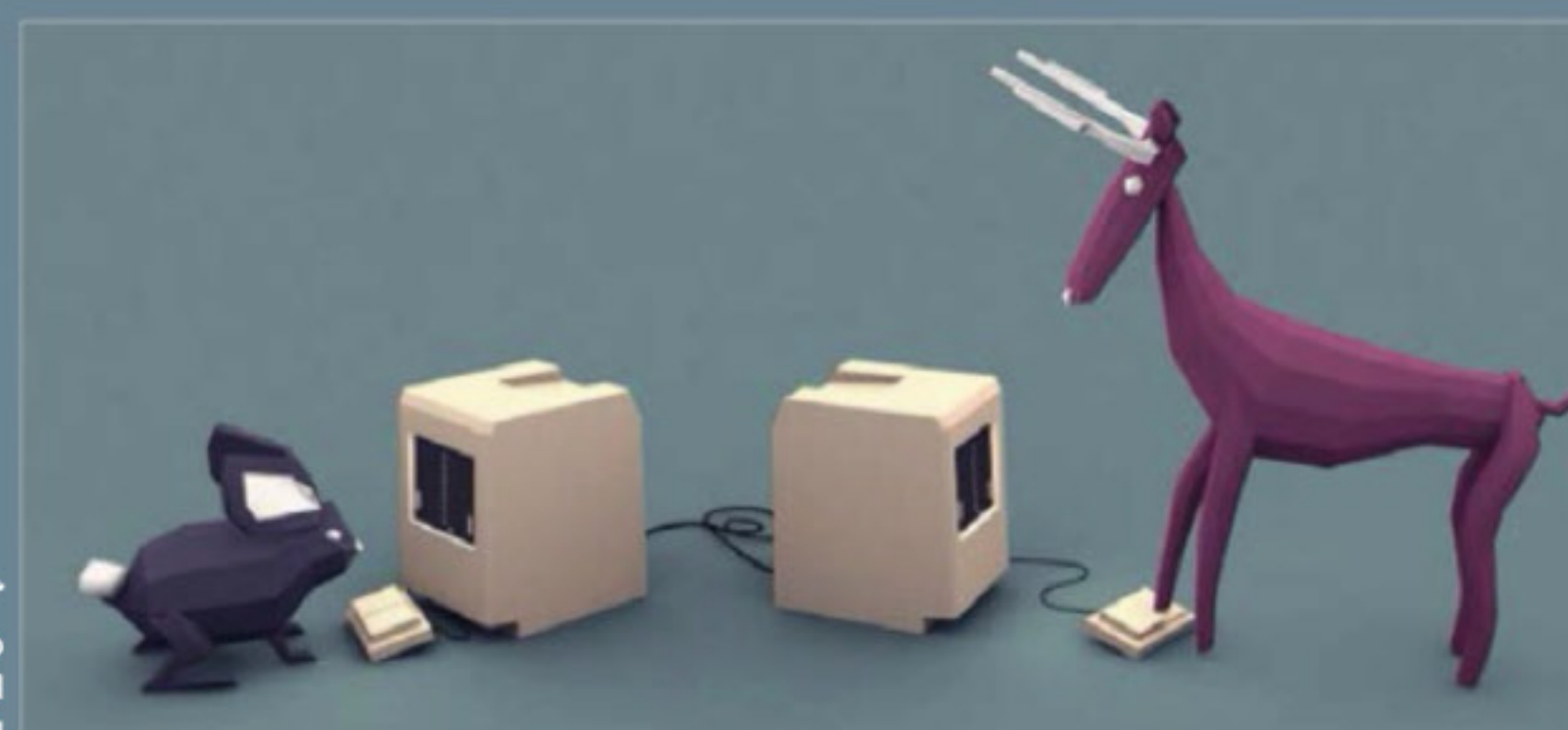
When North Kingdom started the project, their objective was clear: they wanted to showcase the capability of WebRTC: the technology that makes it easy to communicate with sound and video through the Google Chrome browser. They focused on doing this by bringing the technology into a game context, where users could communicate with each other in real time, face-to-face, while playing.

They went back and found inspiration from one of the most influential two-player games known to mankind: Pong. Its crude simplicity and refined gameplay served as a starting point. But they were also inspired by far more physical stuff – like their own ping-pong table in the office. The social aspect of knockout tournaments triggered a lot of ideas in the beginning. Another particular reference that some viewers may recognise (and that could be considered even more influential than Pong) was the good old Shufflepuck Café created for the Mac in the late Eighties.

With all this inspiration in mind, North Kingdom created a modern version of an old-school arcade game where you can hook up with your friends instantly to have a good time. The team felt it was crucial to make the experience somehow retro-modern as a tribute to the gaming community.

RESULTS

- 10,000 max concurrent users at once
- 2 million unique visitors in the first month
- FWA Site of the Day
- Adobe Cutting Edge Project of the week
- Runner up for Cutting Edge Project of the Year
- Awwwards Site of the Day



<Right>

CubeSlam allows users to communicate with sound and video while playing

AGENCY BREAKDOWN

Who does what at North Kingdom



Strategy and planning



Business developers



UX and interaction design



Producers and production managers



Creative directors



Administration



3D and motion design



Developers



Art direction and design





Each team member's personal input is valued in the project they are working on

industry insight

Marcus Ivarsson, creative director



“We think that the attention to detail that we always bring to bear on each project sets us apart from other agencies that perhaps won't go the extra mile to deliver a world-class piece of work that is technically innovative and at the same time, offers something new as a creative piece of work”

mobile platform presents not just another format to work with, but offers us further inspiration. Mobile devices, because of their personal nature and the immediacy of the connections that can be made, means from a design perspective we can do much more than we have been able to do in the past when materials were consumed on a desktop PC.

“Our clients are, of course, asking for their projects to have a mobile component – and in many ways they are a little obsessed – but for us we see all the channels our clients use to reach their customers as another touch point we can use to develop creative and innovative content the audience finds engaging.”

Marcus also commented: “And of course with mobile devices you have the world in your pocket. From a design perspective though, these devices do mean that the content is often contextual. So today we are thinking about how the user is approaching the content we are creating. Where in the past we pretty much knew they would consume our content on a desktop PC, today those same consumers could be using a number of different devices.

“Therefore, from a design perspective we have to think about how the relationship between the users, and how they see and interact with the content is

different depending on the devices they are using. All of our clients are interested to see how their projects can work or be enhanced by using mobile devices to reach their end users.

“Whereas in the past perhaps the majority of client's budget would be spent on TV, today many of the brand's consumers no longer watch TV. So the messages we are now creating have to be tailored to how consumers interact with brands. We are still selective and honest to clients. We won't offer a pull service, but take the piece of the project we know we will excel at and focus our attention on making that element a piece of world-class work.”

And the people that North Kingdom have available are all specialist in their field. “Because North Kingdom has a flat management structure, we are not looking for what you might call ordinary employees,” said Marcus. “Each project we take on will mean everyone on the assigned team will have their input into the how it should progress. We have pretty much all the skills we need in-house, so we can draw on our own resources to create the work that excites us. We are looking for people who are as passionate about work as we are, because ultimately this will come across in the work they create.”



FINDING NEW FANTASYLAND

A digital theme park, made with Disney

Disney asked North Kingdom to help them launch an expansion of The Magic Kingdom theme park in Orlando, Florida called Fantasyland. The purpose was to highlight the new expansion and to attract visitors by telling them the story of the new Fantasyland.

The first step was to build the park in CGI. For this they partnered up with Mirada in LA, who did an amazing job. In parallel, North Kingdom started to ideate around how to form the narrative and the user experience to make it more relevant to a grown-up audience as well as children.

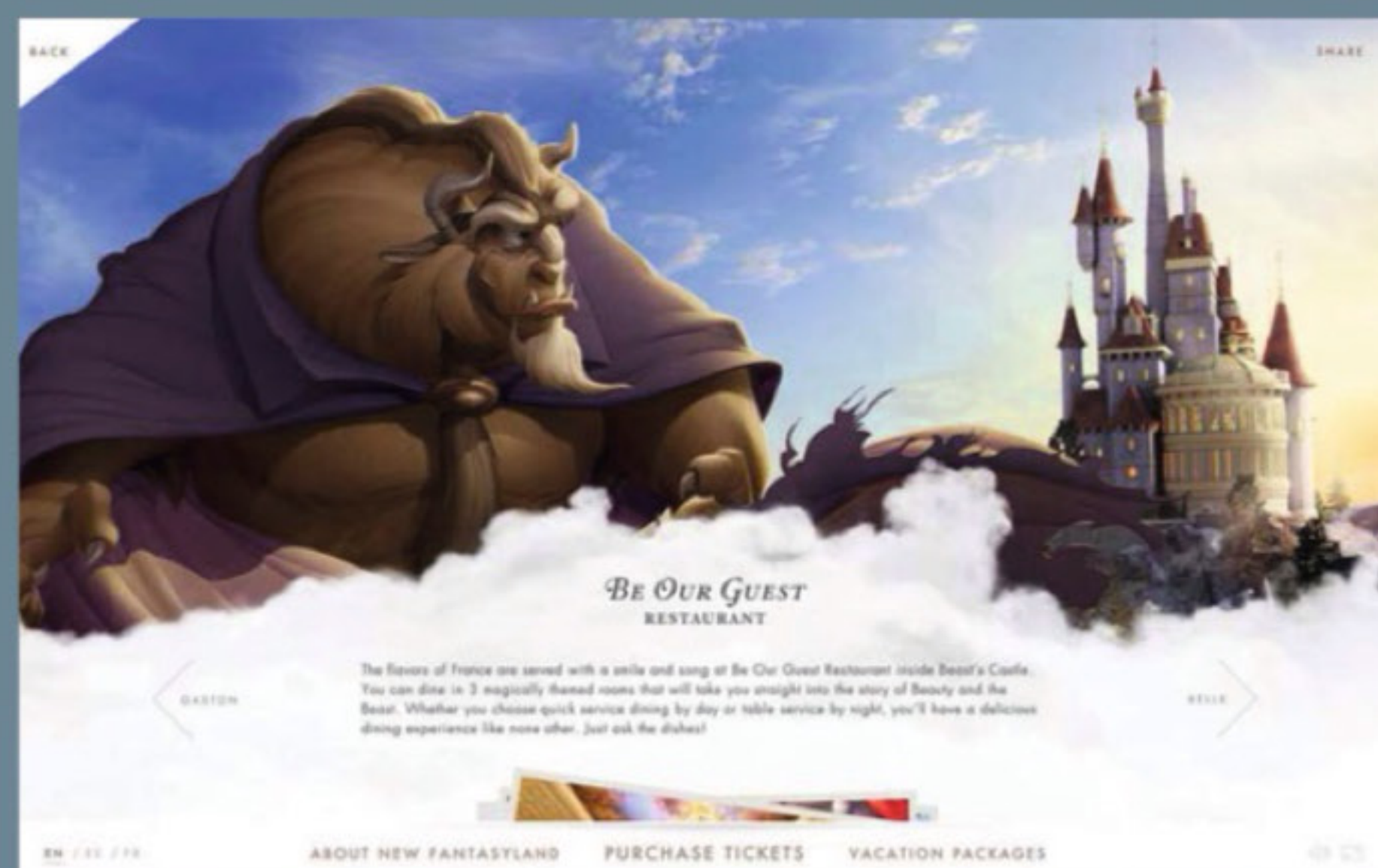
After close collaboration with Disney, they came to the inspiring insight that the stories that the park is fuelled by are full of wisdom and moral sense, teaching children what it is to be a human. They had found a relevant entry point to the experience, reminding the parents of the importance of these stories and how they can be retold to new generations.

With the insight backing up the mission, North Kingdom started to think about how to structure the experience. They knew a couple of things: they had developed one beautiful CGI flyover. They also had a very 'Disneyesque' story idea about an evil curse and had connected this to a relevant entry point for the targeted audience. With these tools they set out to create something emotional, inspiring and convincing.

The answer was an interactive film that takes the user through the complete park in the mission to recapture the lost stories that ends with the curse being removed in a great celebration, where the user gets to see the full park in all its beauty.

<Right>

The project used alluring imagery and CGI to make Fantasyland come to life for users



PARTNERS

• Animation: Mirada • SoundDesign: Dinahmoe • Development: Illianced

Robert also explained: "Recently we have been talking a lot about how we can support designers and developers who are in education at the moment. We are working with Hyper Island to improve the portfolios of the students that we see. Some of the work we see today isn't of a high enough standard, or lacks a level of creativity that we are looking for in people we want to work with.

"Connecting with educational institutions is our way of using the experience we have gained to ensure that the next wave of designers is thinking about digital design in the right way, and presenting their work to the industry that will ultimately employ them. A great portfolio will open many doors in this industry, so we want to help students where we can.

"When we are looking for new employees, of course we look at their work first, but because they will have so much of a personal input into projects

they will be working on, it's also important for us to look at their personality. As collaborative working is such an important component of how we work, new people must complement our existing teams with new skills, or perhaps they will have new insights that enable us to keep producing exciting work."

The future is clearly very bright for North Kingdom. Opening a new office in California this year has been a milestone for the company that has seen rapid growth over the last decade, built on a portfolio of innovative design. Robert concluded: "We are also working more with direct clients, which means we can get a clear idea of what they are trying to achieve. This has influenced our staffing levels and the kinds of skills we have been looking for as our agency expands." Let's hope that North Kingdom continues to feel those butterflies, as this invariably produces captivating results.

🌀 A great portfolio and thinking about digital design the right way will open many doors in this industry 🌀



WEB..... www.northkingdom.com

FOUNDERS..... Robert Lindström, Roger Stighäll

YEAR FOUNDED..... 2003

CURRENT EMPLOYEES..... 50

LOCATION..... Skellefteå, Stockholm Sweden,
Venice Blvd, Venice, California

SERVICES

- > Design
- > Technology
- > User Experience
- > Strategy
- > Insight

HOT 100

Industry experts reveal 2014's
biggest web design trends

INTRODUCTION

The web is a constantly evolving animal and a new year brings into focus what will, and what may, lie ahead. Predictions can be a precarious path, but web design and development already has a path to guide us. We know that the HTML5 specification is heading towards its final destination and CSS is ready to take control of animation.

These are undoubtedly exciting developments, but what in particular excites us at **Web Designer**? A new mature responsive design and CSS3 animations are getting us hot under the collar. We're going to stick our neck on the line here and make our annual prediction: Horizontal parallax scrolling is going to be big. However, it's the unexpected that could really set the tone for 2014. What will appear from the sidelines? That's the beauty of predictions, we simply don't know - but our collective of industry experts is here to give you a sneak peek into the future.

STEVEN JENKINS, WEB DESIGNER DEPUTY EDITOR



PROFESSIONAL PICKS

ERIC A. MEYER

“Co-founder of An Event Apart, past Webmaster, author, speaker, CSS and HTML guy, microformatter, gadfly, father and husband”

■ FLEXBOX

www.w3.org/TR/css3-flexbox

It's already started to catch on, but the coming year is going to see a lot more uptake in both browsers and authors, and it's going to affect everything from basic layout to responsive design. I suspect it will still be a hot topic a year from now.

■ CSS ANIMATIONS

www.w3.org/TR/css3-animations

Last year's news? Only if you think we've found all the good ways to use them, and I guarantee you we haven't. There are still plenty of best practices and clever optimisations to be discovered.

■ RESPONSIVE IMAGES

We're starting to figure out how to make our layouts responsive, but what about images? How do you deal with wild variances in bandwidth, display size, and more? This has been a heated argument for years, and unfortunately I don't see it cooling down any time soon. All hail @wiltol!



nordic Light hotel

a member of design hotels™

MAKE A RESERVATION

ARRIVE

11 DEC 2013

NIGHTS

2

BOOK ROOM

MEET HERE

SLEEP WITH THE WORLD AS YOUR NEIGHBOUR

27 METERS TO STOCKHOLM CENTRAL STATION

SHARE

LOCATION

The nordic Light hotel perfectly demonstrates the trend for fresh, clean and sharp edges

TOP DESIGN TRENDS



Folk's (www.wearefolk.com) design guru Tom Wittlin looks outside the web for inspiration for 2014's trends.

■ HYPER POLISH

Thanks to Apple's advancement in retina, I reckon we'll see more of that sleek look. Seeing every last detail really gives a feeling of polish.

■ SLENDER TYPE

Chunky serifs need to go on a diet for 2014. Whatever your favourite sans serif is, get the Light version; you'll start needing it.

■ SHARP AND CLEAN

When navigating, most people want speed and efficiency – especially on mobile. Achieve simplicity with fresh, clean and sharp edges.

■ SMOOTH SLIDES

We're getting used to stuff sliding in from the side. I think we'll see a growth in this being used for navigation or additional information.

■ WIDE SCREEN

We're already seeing more and more fullscreen pages, so if your material will allow it, use it to its full potential on desktop to draw visitors in.

FIVE FONTS FOR 2014



RICHARD RUTTER

Co-founder of Fontdeck

In November this year, the renowned type designer Christian Schwartz closed the Ampersand web typography conference in New York with a plea for designers to make type work harder. He urged us to carefully use more idiosyncratic typefaces in bolder ways, thereby enhancing the uniqueness of a website. I agree, and hope to see more of that in 2014.

APERCU
apercu

■ fontdeck.com/typeface/apercu

Truly easy on the eye, Apercu is a beautiful sans serif that will suit various projects.

EUROSTILE
eurostile

■ fontdeck.com/typeface/eurostile

A geometric and appealing sans serif that feels contemporary and stylish.

FS LOLA WEB
fs lola web

■ fontdeck.com/typeface/fslolaweb

Full of vibrancy and enthusiasm, this is a versatile font with something to offer everyone.

ANTWERP
antwerp

■ fontdeck.com/typeface/antwerp

Developed for print media, this font is the ultimate option for readability.

AVENIR NEXT
avenir next

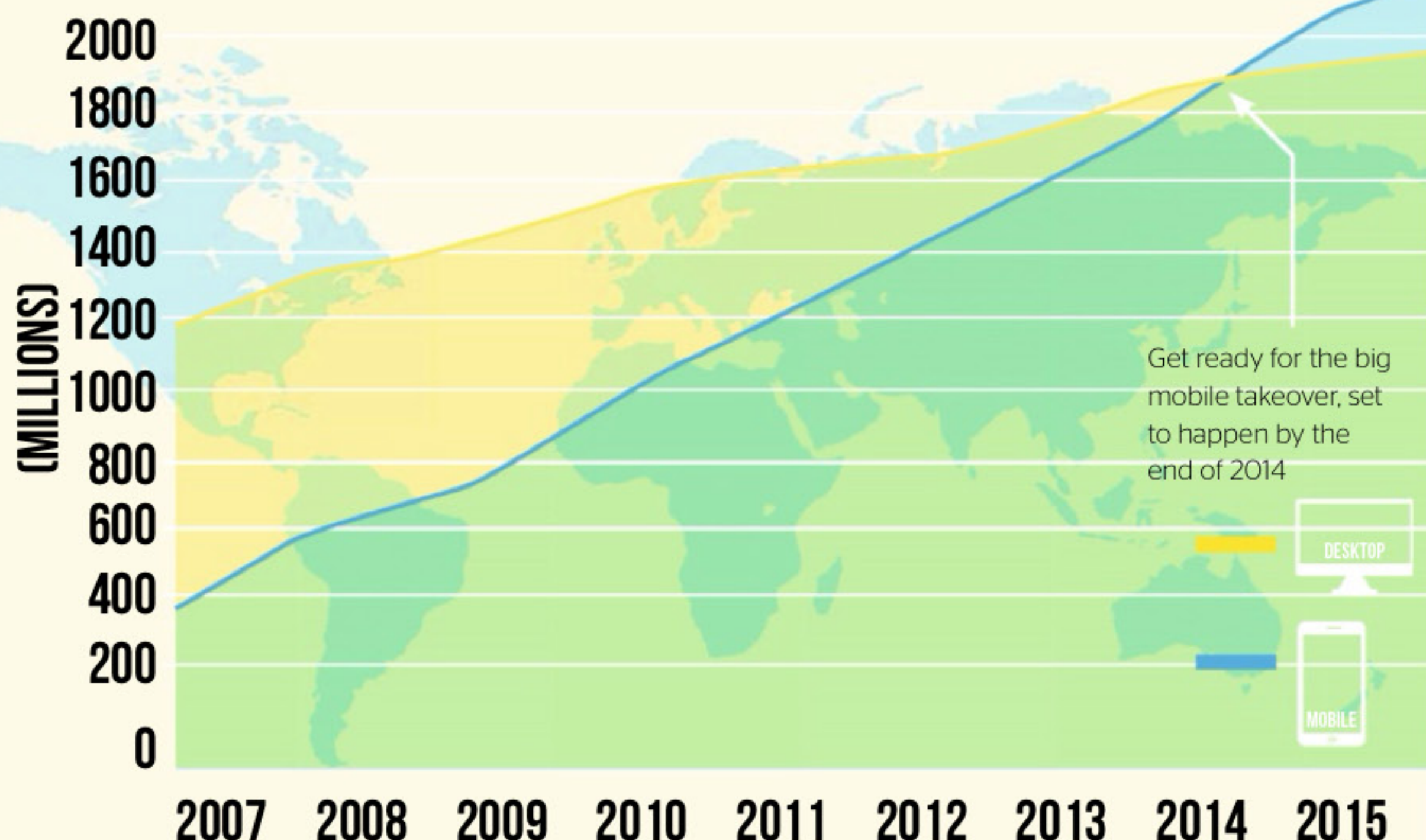
■ [en.wikipedia.org/wiki/Avenir_\(typeface\)](http://en.wikipedia.org/wiki/Avenir_(typeface))

Futuristic with a touch of the organic, Avenir is a popular choice for designers.



WILL MOBILE BROWSING SUPERSEDE DESKTOP BROWSING IN 2014?

The future of browsing is mobile



THE CURRENT STATE OF MOBILE BROWSING

What's happening now

MOST POPULAR BROWSERS WORLDWIDE

24%

ANDROID

16%

IPHONE

NORTH AMERICA
US loves iPhone

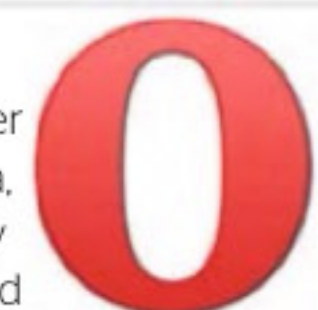
31%
iPhone

24%
Android

13%
OPERA

DID YOU KNOW?

The Opera browser is prevalent in Asia, and is second only to those on Android



PROFESSIONAL PICKS



DANILO FIGUEIREDO

LEAD DEVELOPER AT STINKDIGITAL

- **PIXIJS** - This HTML5 library uses WebGL to make the most of graphics performance.
- **RESONATE** - An inspiring festival debating the position of technology in art and culture.
- **YOUR WEBGL WORKFLOW** - Using the Collada Exporter, take advantage of HTML5's toolset.



RASMUS FRANDSEN

CREATIVE DIRECTOR, DIGITALSBI DENMARK

- **DATA-TELLING** - Successful agencies will turn data into stories that connect with customers.
- **INCLUSIVE DESIGN** - Renewed focus on users and hyper-personalised experiences.
- **PHYSICAL SHOPPING GOES MOBILE** - Mobile will change in-store shopper interactions.



ANTHONY MIXIDES

DESIGN DIRECTOR, BOND MEDIA

- **FLAT DESIGN** - The 2D effect is making its comeback. It's all about promoting simplicity!
- **SINGLE-PAGE WEBSITES** - Less is more - perfect for marketing campaigns or microsites.
- **INTERACTIVE INFOGRAPHICS** - 2014 is all about taking the infographic to the next level.



NATHAN PERETIC

CO-FOUNDER OF FULL STOP

- **PRIVACY** - Expect a resurgence in privacy-first software and an exodus from the always-on world.
- **OWNERSHIP** - Many will seek to retake ownership by self-publishing (watch out for Ghost).
- **DISTINTERMEDIATION** - The tools to reach people directly have never been closer to hand.

5 KILLER KICKSTARTER PROJECTS TO WATCH OUT FOR IN 2014

Web Designer rounds up five of the best projects that you will want to acquaint yourself with from the get-go



WIPEBOOK kck.st/18X5uUf | wipebook.com

This is a reusable whiteboard notebook. It has taken the whiteboard experience and converted into a notebook that allows creatives to generate ideas wherever they go.



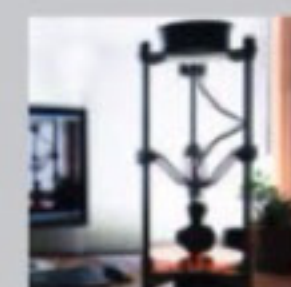
GIGS 2 GO kck.st/1fq8vu | boltgroup.com

A credit card-sized thumb drive pack made from recycled paper pulp. Tear off a tab from the Gigs 2 Go pack, add your files and pass it on to clients and friends.



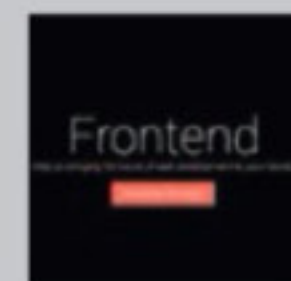
SWATCHMATE CUBE kck.st/19HcP4B | bit.ly/1bNYoix

The Cube is a portable device that captures the colour of any surface. Send colour data via Bluetooth to a smartphone or straight to Photoshop.



DELTAPRINTR kck.st/18oX8Is | Deltaprinter.com

The Deltaprinter is a simple, affordable 3D printer. It offers ease of use, simple setup, 100 micron resolution and biodegradable PLA plastic.



FRONTEND kck.st/1dbvsQs | xchema.com

An open-source Photoshop replacement for web design. Using a drag-and-drop interface, it allows for the creation of responsive sites and apps directly from the browser.

AGENCY TO WATCH

WHO: LBI

WEB: www.lbi.com/dk

WHAT: Digital marketing big boys blending insight, creativity and technology

WHY: The groundbreaking Maersk site was just the beginning for these Danes. They are still producing top-quality sites and we can't wait for their next project

PANTONE®
18-3224 TCX
Radiant Orchid

PANTONE®
18-3224 TCX
Radiant Orchid

PANTONE®
18-3224 TCX
Radiant Orchid

COLOUR OF THE YEAR

Colour gurus Pantone reveal that Radiant Orchid is the chosen colour for 2014

66 This may be the choice for 2014, but will it really set the tone for the year? In **Web Designer's** opinion it's not a colour that lends itself to a broad spectrum of design. We don't think it's quite bold enough 99

WEB DESIGNER ALTERNATIVES FOR 2014

Not keen on Radiant Orchid? Here's a trio of different options

64BDBA

This iOS 7-inspired colour is a vibrant turquoise, perfect for your app designs.

E34633

These bright, almost neon shades will be all the rage in 2014.

FBBE23

Everyone loves a rich yellow. This is a versatile colour that looks great online.

AGENCY TO WATCH

<http://www.w3.org/TR/css3-flexbox/>

It's already started to catch on, but the coming year is going to see a lot more uptake in both browsers and authors, and it's going to affect everything from basic layout to responsive design. I suspect it will still be a hot topic a year from now.

AGENCY TO WATCH

WHO: NORTH KINGDOM **WEB:** www.northkingdom.com **WHAT:** Creating emotional connections between brands and people
WHY: This is an agency that doesn't do things by halves. They are full on and their projects reflect their undeniable talent

PROFESSIONAL PICKS



BJARNE CHRISTENSEN
PARTNER AT STUPID STUDIO

■ VIDEO, ANIMATION AND STORYTELLING -

2014 will be the year we experience websites based on storytelling and interactive video.

■ **WEB AS BUSINESS** - We will see design as a vital part of companies' goals. Web as media will be our main tool for creating relationships.

■ **PITCHING** - Pitching removes the focus from the actual users, just to sell the customer the idea. Pitching is out, understanding your client is in!



ALEX MATTHEWS
HEAD CREATIVE TECHNOLOGY, BBH

■ **PATTERN LAB** - Designing into code, using tools such as Pattern Lab and associated frameworks to make this much easier.

■ **AWS SDK FOR JAVASCRIPT** - Front-end developers can connect directly to back-end services without a server - it's all about speed.

■ **WEBRTC** - Establishing peer-to-peer connections between browsers and transferring data without plug-ins must become mainstream.



WESLEY TER HAAR
FOUNDER AND COO OF MEDIAMONKS

■ **DIGITAL GETS EMOTIONAL** - Campaigns used to be technically complex - now we're learning how to be interactive in an evocative way.

■ **THE INTERACTIVE PRODUCER** - As interactive becomes more central, we'll see the interactive producer gaining deserved respect.

■ **REAL-TIME WEB WITH NODE.JS** - More scalable, lightweight web apps are going to pop up as Node.js becomes more prevalent.



ANDERS SØNDERBY JESSEN
TECHNICAL DIRECTOR, HELLO MONDAY

■ PURE JAVASCRIPT (EVERYWHERE) -

JavaScript wrappers will disappear and JavaScript itself will spread over desktop, phone apps, etc.

■ **CONNECTED DEVICES** - We will see more functional connected devices that can improve your life and therefore more widespread adoption.

■ **GET SENTRY** - If, or probably when, you do not catch JavaScript bugs in your QA, Sentry will make sure you know about it.



LUKE TOWNSEND
CREATIVE DIRECTOR, FOUND

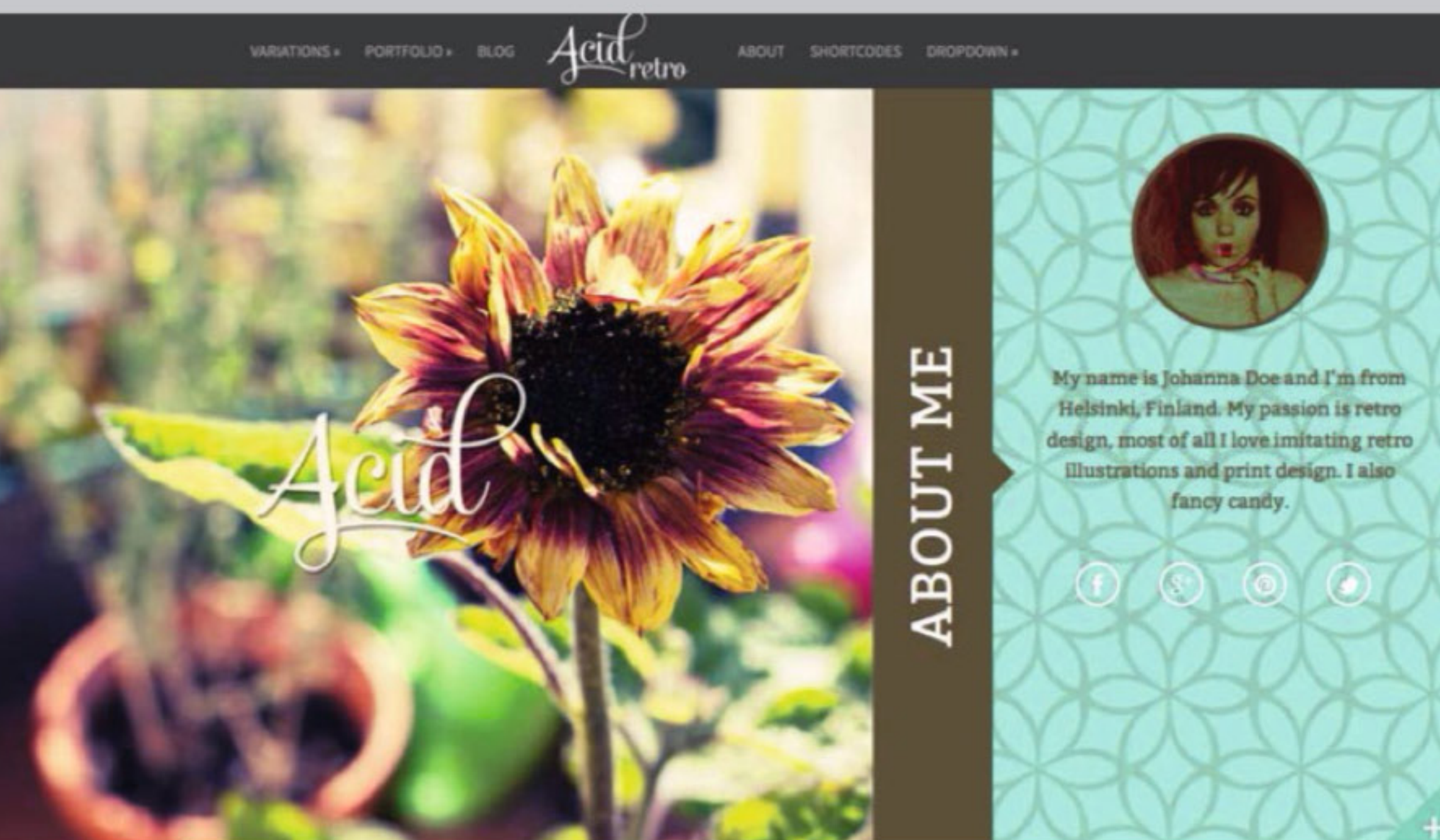
■ **MORE INTRUSIVE MOBILE ADS** - Expect to see more ads on your mobile in 2014 that use your location to offer you local discounts.

■ **LESS-FLAT DESIGN** - We'll see a little depth and texture brought back to flat design.

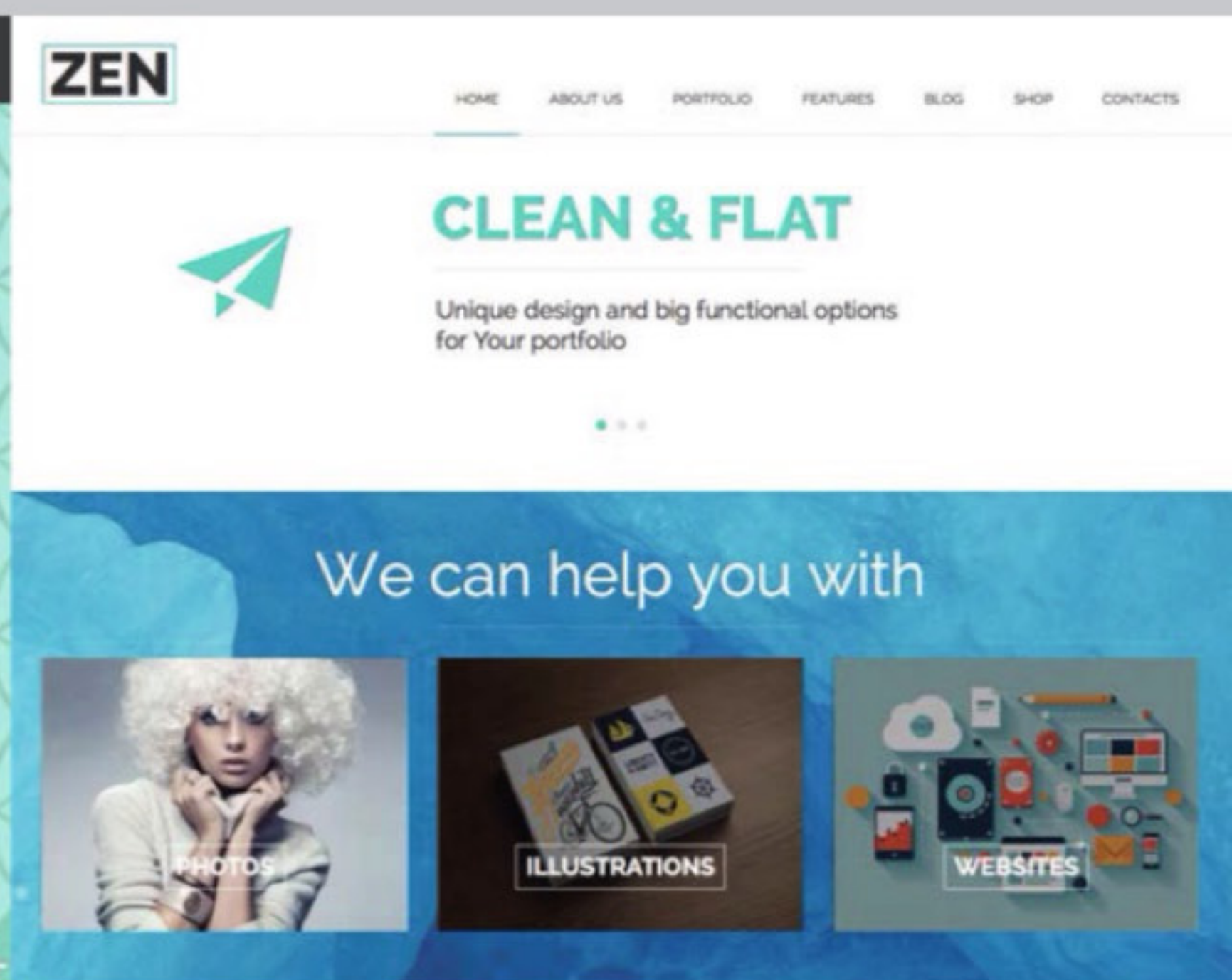
■ **MORE WEIGHTING ON G+ AUTHORSHIP** - Assume that G+ authorship will become very relevant in the evaluation of content by Google.

HOT WORDPRESS THEMES

Five of the absolute must-have themes to try out in 2014



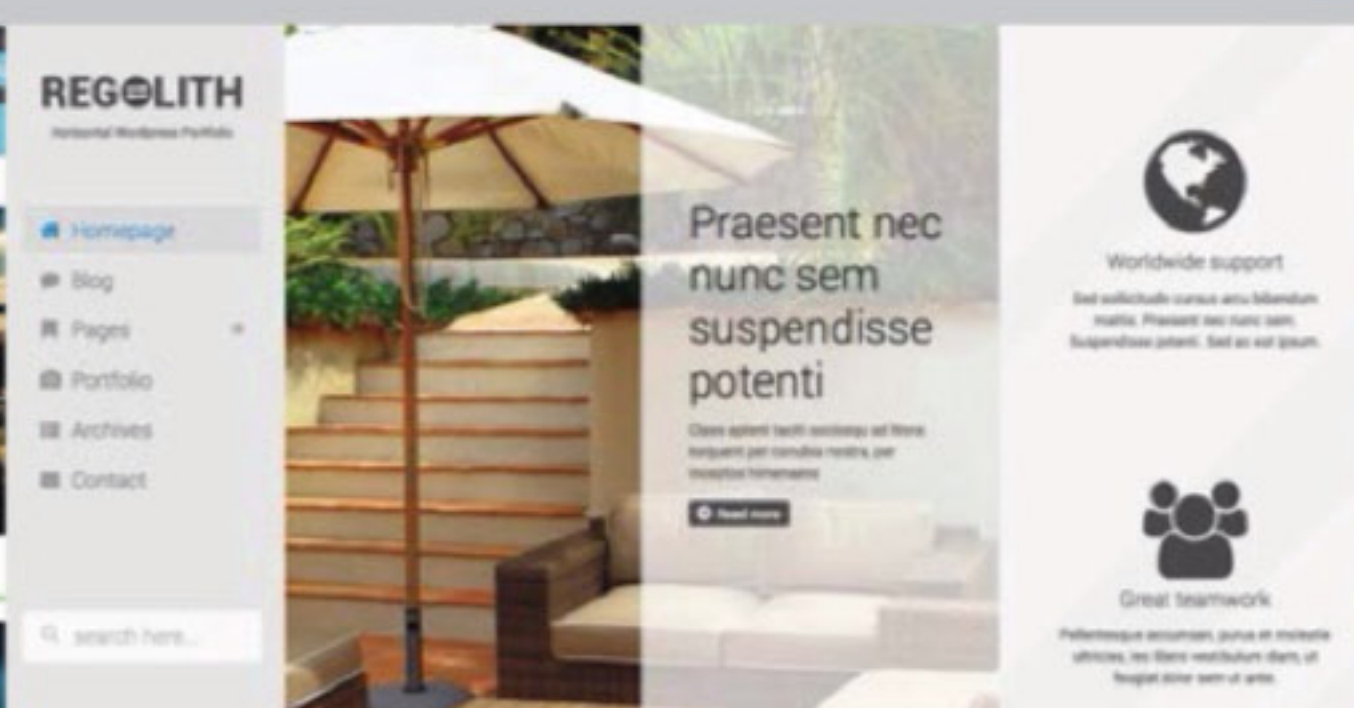
■ **ACID** retro.acid.puremellow.com



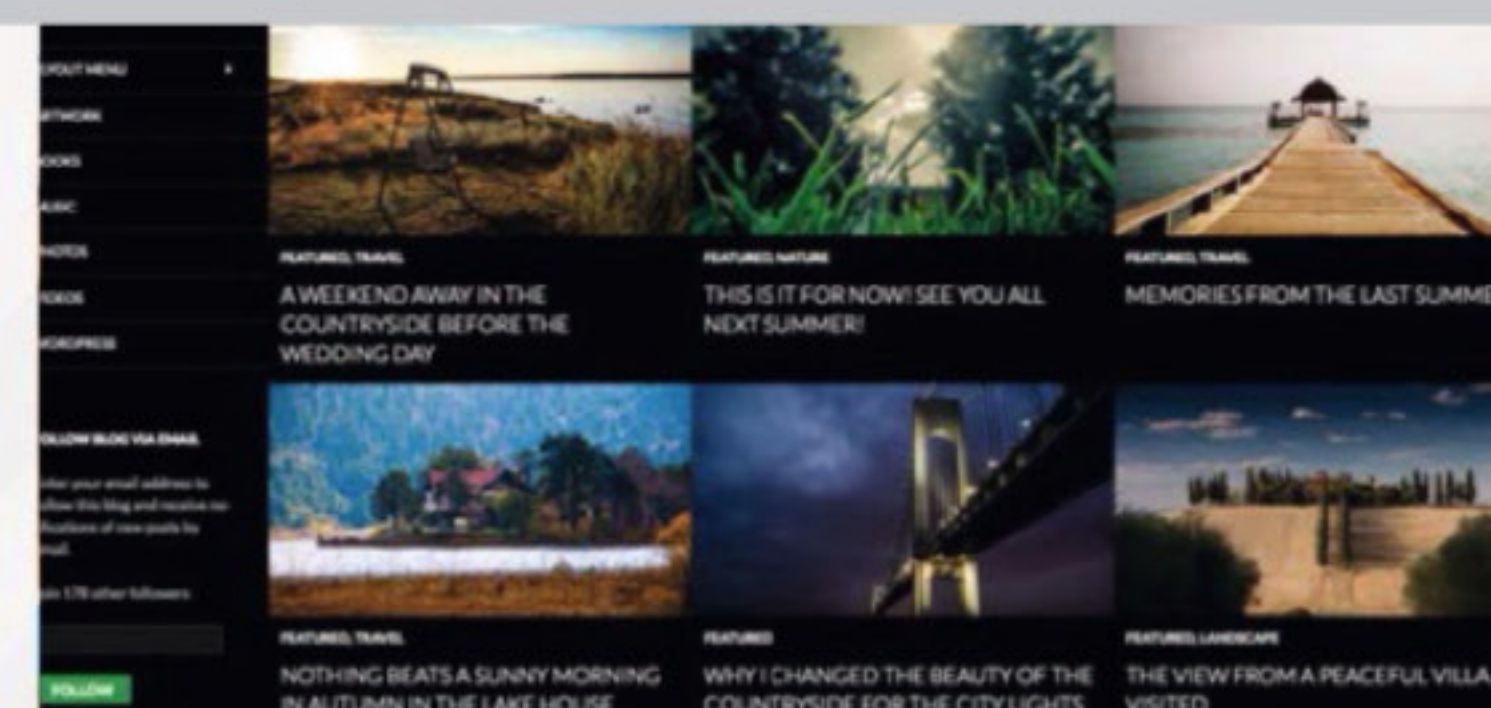
■ **ZEN** zen.themerex.net



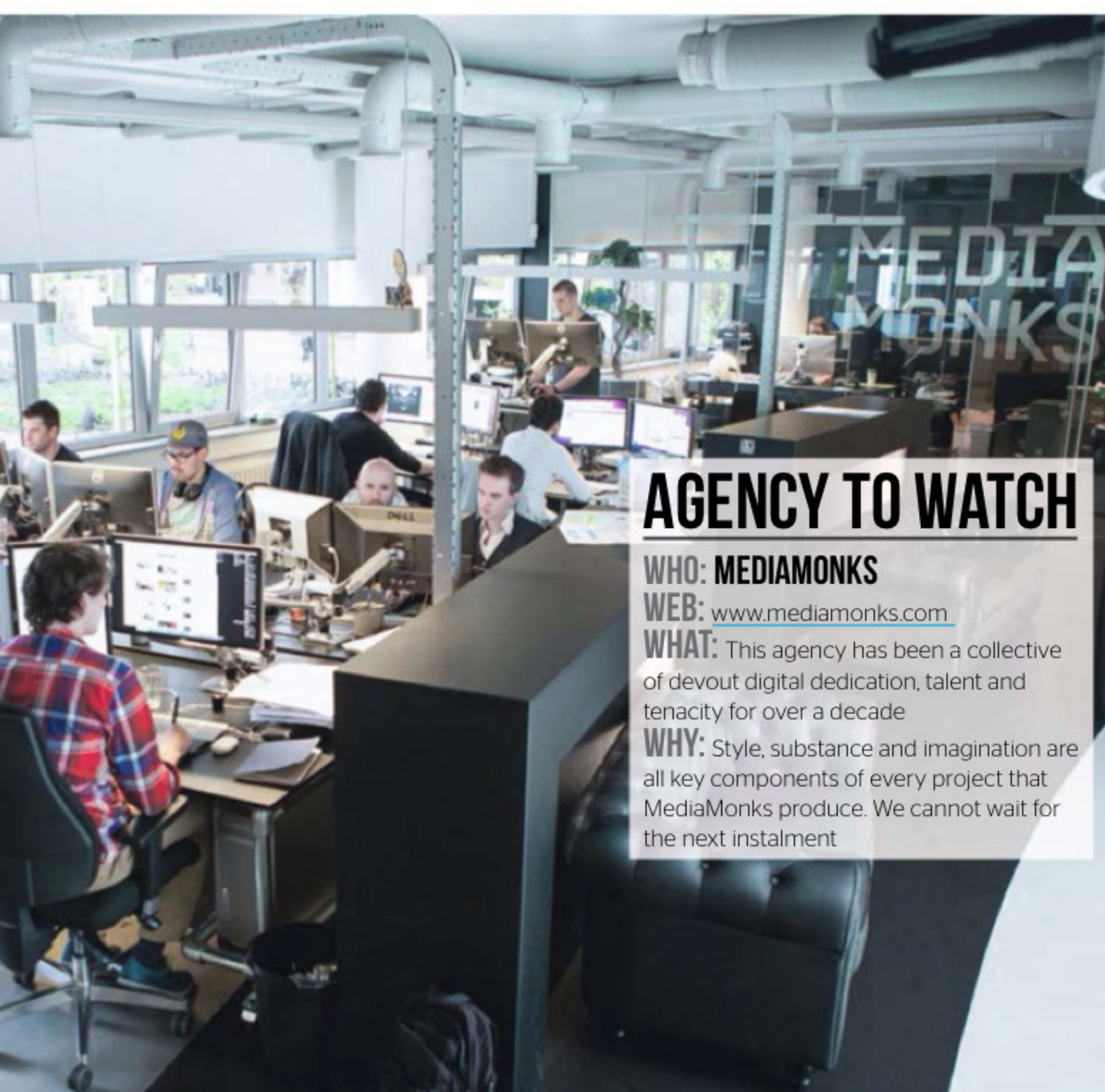
■ **JUNO** demo.wellthemes.com/juno



■ **REGOLITH** planetshine.net/demo/regolith-wp



■ **TWENTYFOURTEEN** twentyfourteendemo.wordpress.com



AGENCY TO WATCH

WHO: MEDIAMONKS

WEB: www.mediamonks.com

WHAT: This agency has been a collective of devout digital dedication, talent and tenacity for over a decade

WHY: Style, substance and imagination are all key components of every project that MediaMonks produce. We cannot wait for the next instalment



WHAT WILL HAPPEN TO RWD IN 2014?

Veteran designer and developer Sam Hampton-Smith reveals his hopes for the future of all-screen design



■ FOCUS ON CONTENT

The focus will move away from simply creating a responsive design framework, to concentrating on the reason why visitors come to a website: the content.

■ NEW LAYOUT MODULES

The implementation of new CSS3 layout modules in browsers will finally enable designers to create truly fluid layouts that adapt by default to the user's device.

■ BETTER UNDERSTANDING

A lot of meetings will be held by companies desperate not to get left behind, demanding responsive web design sites, without properly understanding why they're doing so.

■ SMARTER VISUALS

Websites will become smarter at displaying visual media (such as video and images) in a way that takes full advantage of the different device profiles.

■ GOODBYE TO JS

The reliance on JavaScript tricks to achieve working responsive designs will all but disappear as @media queries and conditional stylesheets are fully adopted.

A portrait of Viviana Doctorovich, a woman with short, wavy brown hair and green eyes, wearing a purple sweater. She is looking slightly to the right of the camera. The background is a dark chalkboard with various colorful drawings and numbers like '7/4' and '13/7' in red and blue.

PROFESSIONAL PICK

VIVIANA DOCTOROVICH

Senior user experience designer at Clearleft www.clearleft.com

■ In 2014 flat design will continue to provide us with an oasis of beautiful simplicity. However, it will also limit the visual language UX designers have relied on to communicate hierarchies. Now, intuitive interfaces will be defined by colour, typography and animation. Refresh your knowledge of the Gestalt theory of visual perception and be inspired by Dieter Rams'

Ten Principles for Good Design. Collaboration between UX and visual designers should be at the core of your workflow.

Making the most of HTML5, CCS3 and jQuery will be essential for the creation of experiences that stand up against the competition. One of the challenges UX designers will face is to find the best tools to design animations. 2014 may be the year

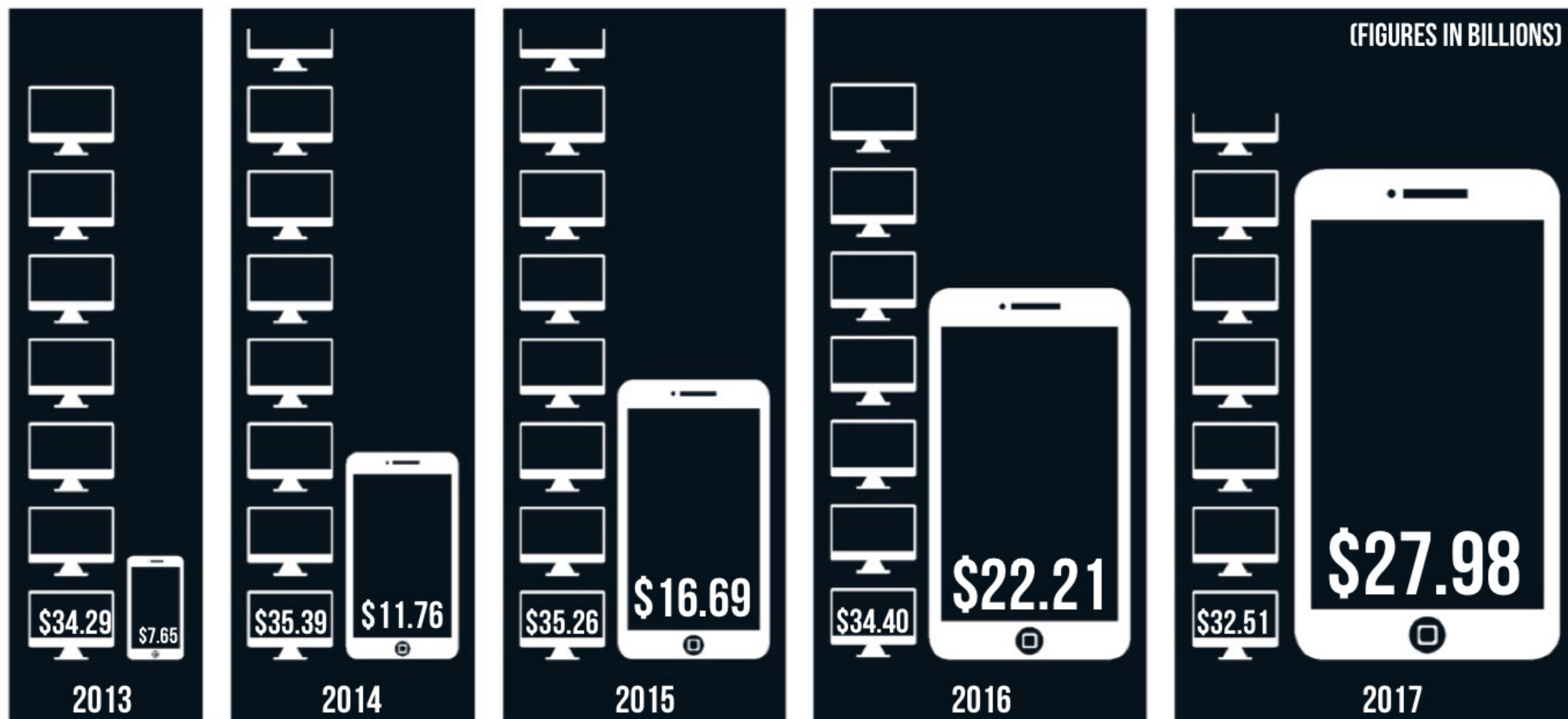
to learn After Effects or Quartz Composer, sharpen any ninja Keynote skills or discover the capabilities of Axure's dynamic panels.

As the market is inundated by devices with an ever increasing variety of screen sizes, being skilled at responsive design will be a must in 2014. An ability to communicate the benefits of responsive to your clients will be also a great bonus.



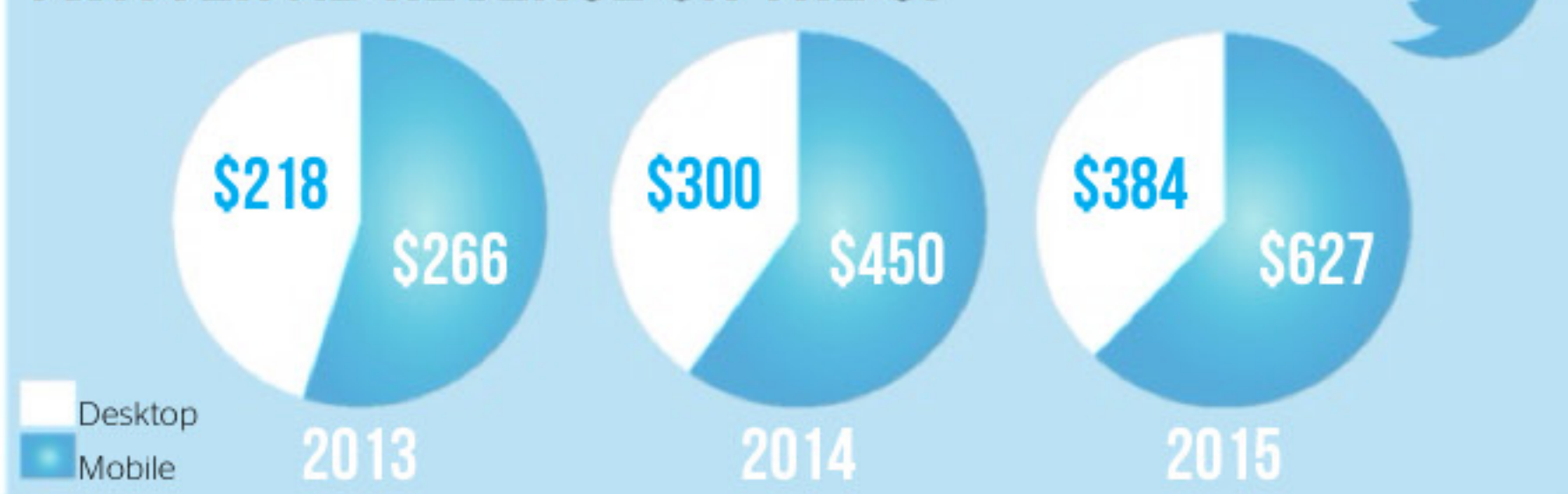
MOBILE ADVERTISING: THE FUTURE?

Mobile devices are everywhere, making them a realistic prospect for advertisers



Source: www.emarketer.com

TWITTER AD REVENUE ON THE UP



CONCLUSION

It will come as no surprise that mobile devices will become even more omnipresent in the coming years. Everyone will have one, even developing countries are slowly catching up as bigger and better networks are introduced. It is even conceivable that within the next five years more people will own a mobile device than a television. This will make it the ultimate platform for advertisers to spend their advertising budgets. Expect to see more adverts soon - we hope we can opt out.

AGENCY TO WATCH

WHO: ULTRANOIR

WEB: www.ultranoir.com

WHAT: Parisian digital style gurus with an unmissable collection of projects

WHY: Black and white is their thing and at every opportunity they add style, elegance and imagination to their projects

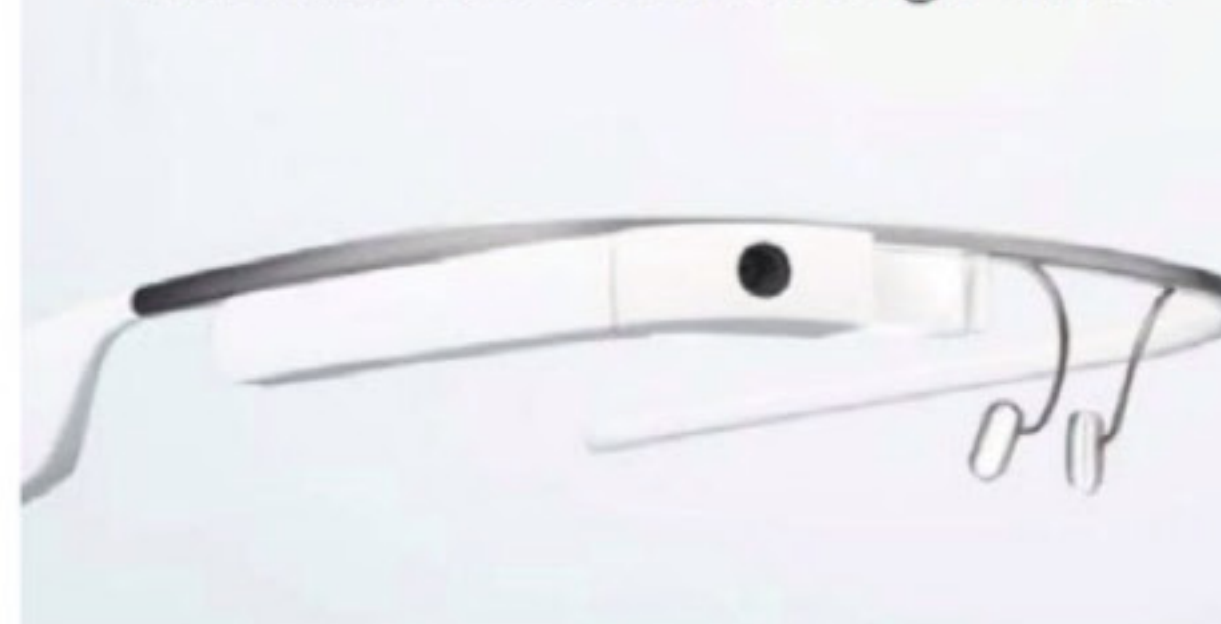
ADOBE DOES HARDWARE IN 2014

PROJECT MIGHTY/PROJECT NAPOLEON

The software vendor moves into the world of hardware in 2014 with the release of Project Mighty and Project Napoleon. Mighty is a pressure-sensitive stylus that syncs with Creative Cloud, while Napoleon is described as a digital ruler. Working in conjunction with Napoleon is Project Parallel, a new iPad app that enables users to draw straight lines, perfect circles and balanced shapes. Sign up for the latest info at xd.adobe.com/mighty/notify.html.



Welcome to a world through Glass.



TECH 2014 GOOGLE GLASS

Google is offering us a glimpse into how the future of browsing could evolve. Glass runs on the Android OS and includes Wi-Fi, Bluetooth, a 5-megapixel camera that records 720p video and a 640 x 360 screen. The screen gives a viewing experience equivalent to a 25-inch screen from 8 feet away and audio is delivered using bone conduction into your head.

HOT
TOPIC

WHAT WILL PHP OFFER DEVELOPERS IN 2014?



PHP evangelist Jeffrey Way reveals the essential tools and frameworks that will keep you busy for the next 12 months and beyond



THE ONE TO WATCH IN 2014

■ LARAVEL 4.1 laravel.com

Two years ago, a former .NET developer named Taylor Otwell set out to build a PHP framework for his personal projects. Little did he know that his framework, Laravel, was about to spread to the masses like wildfire. The latest release, v4.1, introduces a number of great time-saving new components and commands.



■ TEST-DRIVEN DEVELOPMENT

behat.org

The PHP community has its fair share of critics. While the truth is that, yes, we haven't always been early adopters of modern practices and techniques, luckily, all that is changing in a big way. In 2014 you can expect to see an increased emphasis on test-driven development – specifically using PHPUnit, Codeception, and/or Behat.



■ PHP 5.6 wiki.php.net/rfc/php_56

Let's make one thing clear: your memories of PHP 4 – well, they're just that: memories. The language and ecosystem have matured immensely since then. As part of PHP 5.6, expect to enjoy variadic functions, importing namespaced functions, and much more.



■ STACKPHP stackphp.com

Think of StackPHP as PHP's implementation of Rack. It allows you to compose middlewares on top of Symfony's solid `HttpKernelInterface`, allowing for code sharing. Already, frameworks like Laravel are jumping on board. Expect to see much more of StackPHP in 2014.



■ COMPOSER getcomposer.org

Composer is easily the single greatest addition to the PHP community in the last five years. While in the past we were forced to wrangle PEAR into shape (what a nightmare), today, Composer (a dependency manager) has reinvigorated the development community. It's a required tool in the modern PHP developer's toolbox.

PROFESSIONAL PICKS



JOHAN BELIN

CREATIVE DIRECTOR, DINAHMOE

■ **HTML5** - Oh so boring answer but it is impossible not to mention it. During 2014 Flash will finally lose its last stronghold: video.

■ **HUMAN-COMPUTER INTERACTION** - Speech recognition, gesture control and eye tracking are leaving the experimental phase. We can expect some major breakthroughs.

■ **PRIVACY** - It will be very interesting to see whether the users will get beyond their indignation and actually demand changes.



ROY RYO TSUKIJI

CREATIVE/ART DIRECTOR, BIRDMAN

■ REAL-TIME EXPERIENCE CONTENTS

■ In this digital age, real-time experiences are becoming valuable. As for the web, real-time promotional advertising will increase in 2014.

■ **KINECT 2** - Having evolved dramatically, Kinect 2 has opened up the possibility of creation. I predict that there will be heaps of content created using this hardware in 2014.



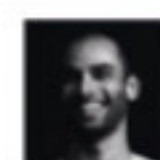
MATT GIBSON

PRODUCTION DIRECTOR AT CYBER-DUCK

■ **OFFLINE-FIRST DESIGN** - Users won't always have a reliable, internet connection, so we will see people designing for offline uses.

■ **PERSONALISED MARKETING** - The next few years will see us benefit from the data we share and result in more personalised experiences.

■ **THE WEB, EVERYWHERE** - There is room for so much more; for the web, location and data-driven products to genuinely enrich our lives.



PANAGIOTIS THOMOGLLOU

INTERACTIVE DEVELOPER, SOLEIL NOIR

■ HUMANS NOT BIG CUSTOMERS

Everywhere around you can see there is evidence for 2014 being the 'year of big data'. I hope that all of this data will serve us as humans and not as customers.



ALBERTO GIORGI

HEAD OF DEVELOPMENT, TOASTER LTD

■ DESIGNER-FRIENDLY DEVELOPER TOOLS

■ New tools aimed at designers will allow them to create animated and interactive HTML5 content which is lighter and more compatible.

■ **UBIQUITY OF RESPONSIVE DESIGN** - The mobile-first approach will be standard for modern apps. Testing will also be facilitated by new developer tools for Chrome and Firefox.

■ **CLOUD HOSTING FOR EVERYONE** - Off-the-shelf PaaS offerings like Google AppEngine for PHP will facilitate serving millions of pageviews without complicated server-side management.

HOT
TOPIC

WHAT'S HAPPENING WITH WEB APPS?

Paul Cooper has been designing since 1998. His first iPhone app was Viz Profanisaurus in 2010 – he reveals his thoughts for 2014



Web apps are evolving to become more and more like native apps – their UI is much more device-specific and application-like. App publishers have realised that using web technologies like HTML5 and JavaScript, including popular libraries like Sencha Touch and jQuery Mobile, means you can develop apps faster and cheaper than if you use native code. Plus, you can bypass the app stores and take all the revenue yourself!





CARLOS ULLOA AND THE THIRD DIMENSION

A visionary and creator of web animation and interactive 3D offers his take on what's going to happen in 2014

During 2013 mobile web browsers have evolved dramatically, adding support for technologies like WebGL, web audio and fullscreen that were introduced in desktop browsers not so long ago.

These new capabilities enable web apps to rival native counterparts in both performance and hardware integration. We can look forward to a new generation of sites pushing the boundaries in mobile browsers.

While we expect to see groundbreaking work produced by the advertising and game industries, we see great potential for customisation, data visualisation and innovative creative apps – all through the browser in the palm of your hand.



WHAT TO WATCH IN 2014

The people behind the big players in web technologies have plans for 2014, but what are they?

■ HTML 5.1 bit.ly/1fgu3d5

The next step in the HTML5 rise to global dominance is HTML5.1. The W3 is putting together a revised charter that is due for completion in 2016.

■ WEB FONTS bit.ly/1P807G

The CSS Fonts Module will stay as a Candidate recommendation until at least 1 April 2014. If successful, it will go on to become a Proposed Recommendation.

■ WEB AND TV bit.ly/1k7psOC

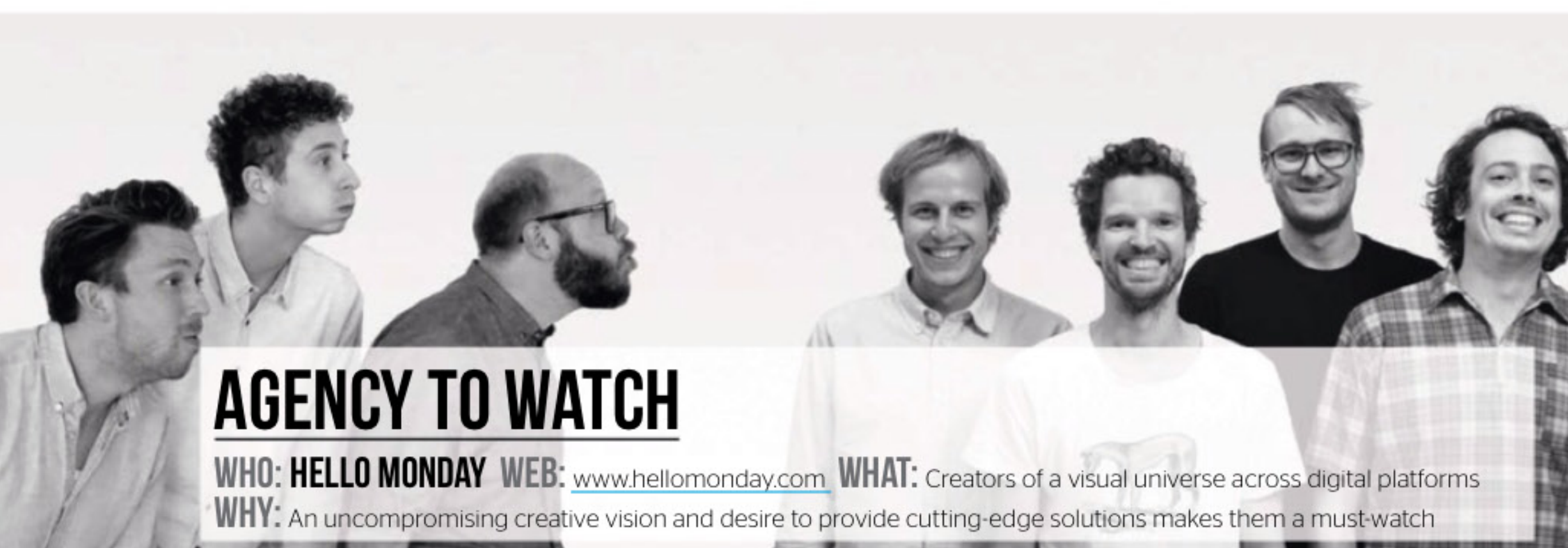
The W3C hosts its fourth web and TV convergence workshop in March, with focus on multiple screens and social TV.

■ PROPOSED PLAN bit.ly/1JqLPzL

By the end of 2014 the HTML Working Group is planning to take a stable HTML 5.0 specification to W3 Recommendation.

■ LAST CALL FOR CSS SHAPES bit.ly/18LiOQK

CSS Shapes allow content to wrap around elements. The W3C put out a last call, closing in Jan 2014. Visit the site for updates.



AGENCY TO WATCH

WHO: HELLO MONDAY **WEB:** www.hellomonday.com **WHAT:** Creators of a visual universe across digital platforms
WHY: An uncompromising creative vision and desire to provide cutting-edge solutions makes them a must-watch



5 THINGS THAT SHOULD BE IN WORDPRESS FOR 2014



WordPress expert and author Thord Daniel Hedengren predicts how the web publishing platform may evolve

■ MEDIA STILL NEEDS LOVE

Media uploads are still difficult to get an overview of, and work with – particularly for the larger sites. This is the one major thing that I especially hope that 2014 will solve for WordPress.

■ JSON REST API

WordPress already powers a huge chunk of the web, and with a native JSON REST API the ways we can interact with sites and their content will increase tremendously. This will be huge, and it's coming.

■ IMPROVED SEARCH

Omnisearch is a great start, but WordPress needs better search on both its front and backend. There are clever people working on this, so hopefully 2014 will be the year for a better WordPress search.

■ FOCUS ON WRITING

Or perhaps more appropriately, the editor. Whether it's front-end posting or adding Markdown support, WordPress is lagging behind the likes of Medium, Kinja and Tumblr. This probably means that TinyMCE need to hit the curb, but then so be it.

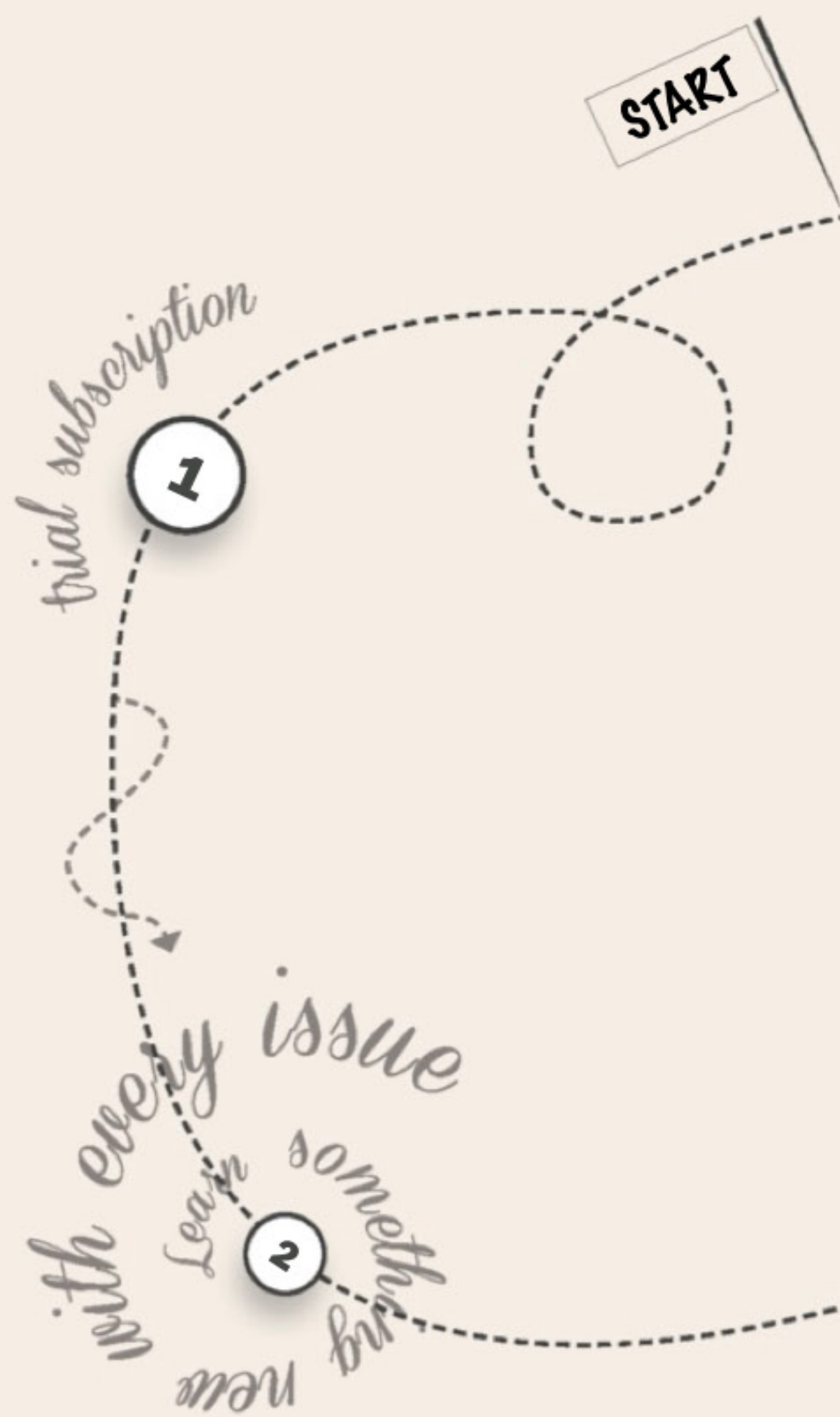
■ BETTER APPS

The official WordPress apps need to start playing catch up now, which means they need to offer the same functionality as wp-admin in terms of writing and updating a site. Mobile first means, for WordPress, mostly better apps.

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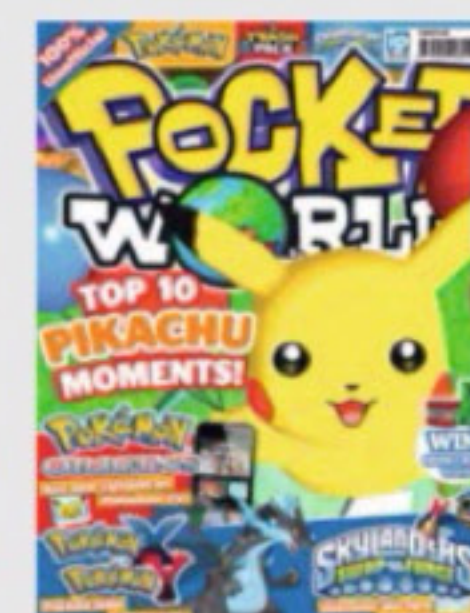
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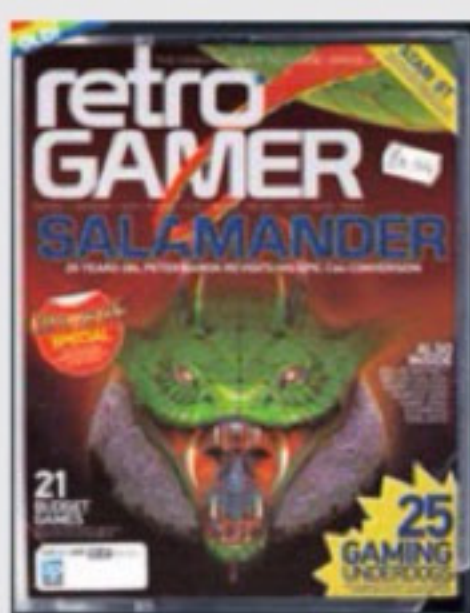
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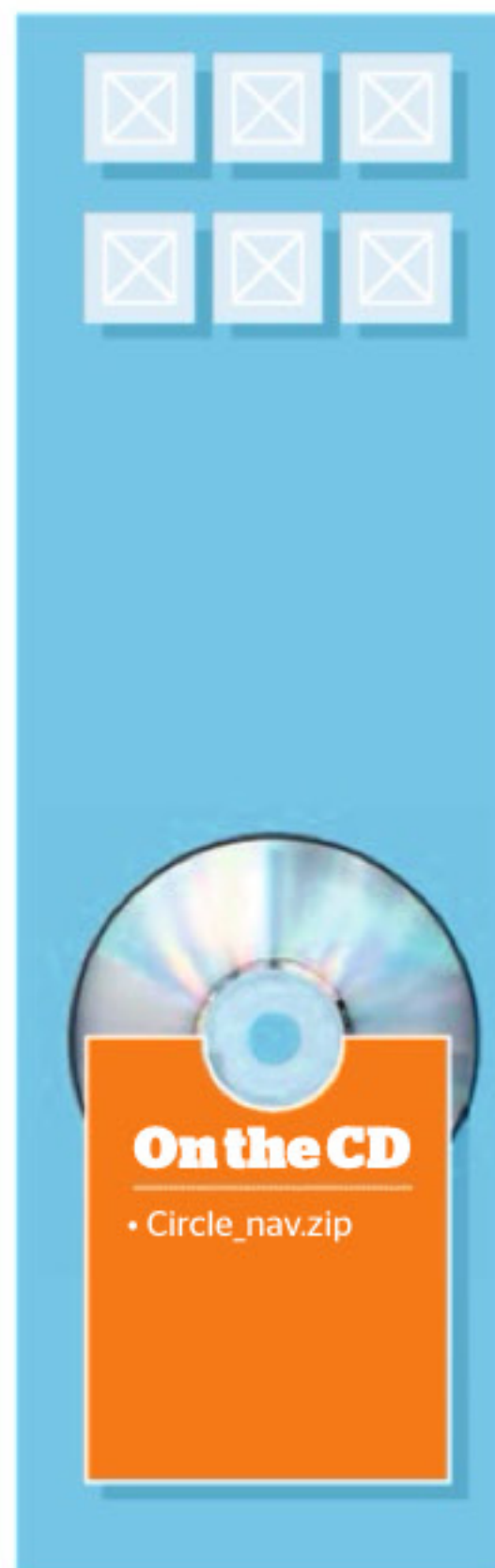


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Create stylish CSS circle navigation

Give your site a visually appealing animated circle navigation using the power of CSS transforms and transitions

tools | tech | trends HTML, CSS **expert** Neil Pearce



ransforms are an extremely powerful addition to CSS3, forming the basis of many of the jaw-dropping CSS experiments you've probably come across in the past few years. The true potential of transforms is only fully

realised when used in combination with CSS transitions, or when their 3D capabilities are tapped into.

On their own, transforms allow you to manipulate an element from its original intended state in terms of position, size, orientation and perspective. The best bit is that we can achieve this in just one line of CSS, whereas you may have previously had to rely on image replacement techniques or good old JavaScript.

This particular area of CSS3 has received a lot of attention since its emergence, and certainly seems to be one of the most used features of the CSS3 specifications. The power and capabilities of transforms as well as their ease of use has pushed the imagination of front-end developers into overdrive, and rightly so. So in this tutorial, let's push our imagination and learn how to create an animated circle navigation using CSS transforms and transitions. Let's get going.

01 Get started

To get started, let's create a new HTML5 file and add in some default HTML within the body. We are going to add in a container `<div>` called 'wrapper' and then make sure we leave a comment at the ending `</div>` just to keep things clean and tidy. Then we simply create two empty script tags positioned at the very bottom of our file.

```
001 <body>
002 <div class="wrapper">
003 </div><!-- END wrapper -->
004 <script src=""></script>
005 <script src=""></script>
006 </body>
```

02 Container and heading

Now inside our wrapper `<div>`, let's add another `<div>` and give it a class name of 'container'. Within that we can add in a page title using the `<h2>` tag, which of course we will style later on to make it look larger and more appealing across our page.

```
001 <div class="container">
002   <h2>Web designer magazine</h2>
003
004 </div><!-- End Container -->
```

03 Button and navigation

In this step we are going to add in a button that we can click to activate our menu. We are going to give it both a class name and ID name so that we can style it and use a touch of JavaScript later on to add some functionality. After

this, we create an unordered list with seven list items and again give this both a class and ID name.

```
001 <button class="button" id="button">Menu</button>
002 <div class="nav-wrapper" id="nav-wrapper">
003   <ul>
004     <li></li>
005     <li></li>
006     <li></li>
007     <li></li>
008     <li></li>
009     <li></li>
010     <li></li>
011   </ul>
012 </div><!-- End Nav -->
```

04 Populate the navigation

Now we can populate our list items with empty anchor tags wrapped around some text. It's completely up to you regarding what you want to put in here, but be aware that using long words will break it. We can then include a `` tag on every list item that will allow us to point to the text using some CSS.

```
001 <ul>
002 <li><a href="#"><span>Home</span></a></li>
003 <li><a href="#"><span>About</span></a></li>
004 <li><a href="#"><span>Portfolio</span></a></li>
```

```
005 <li><a href="#"><span>Blog</span></a></li>
006 <li><a href="#"><span>Tutorials</span></a></li>
007 <li><a href="#"><span>Contact</span></a></li>
008 <li><a href="#"><span>Follow</span></a></li>
009 </ul>
```

05 Scripts

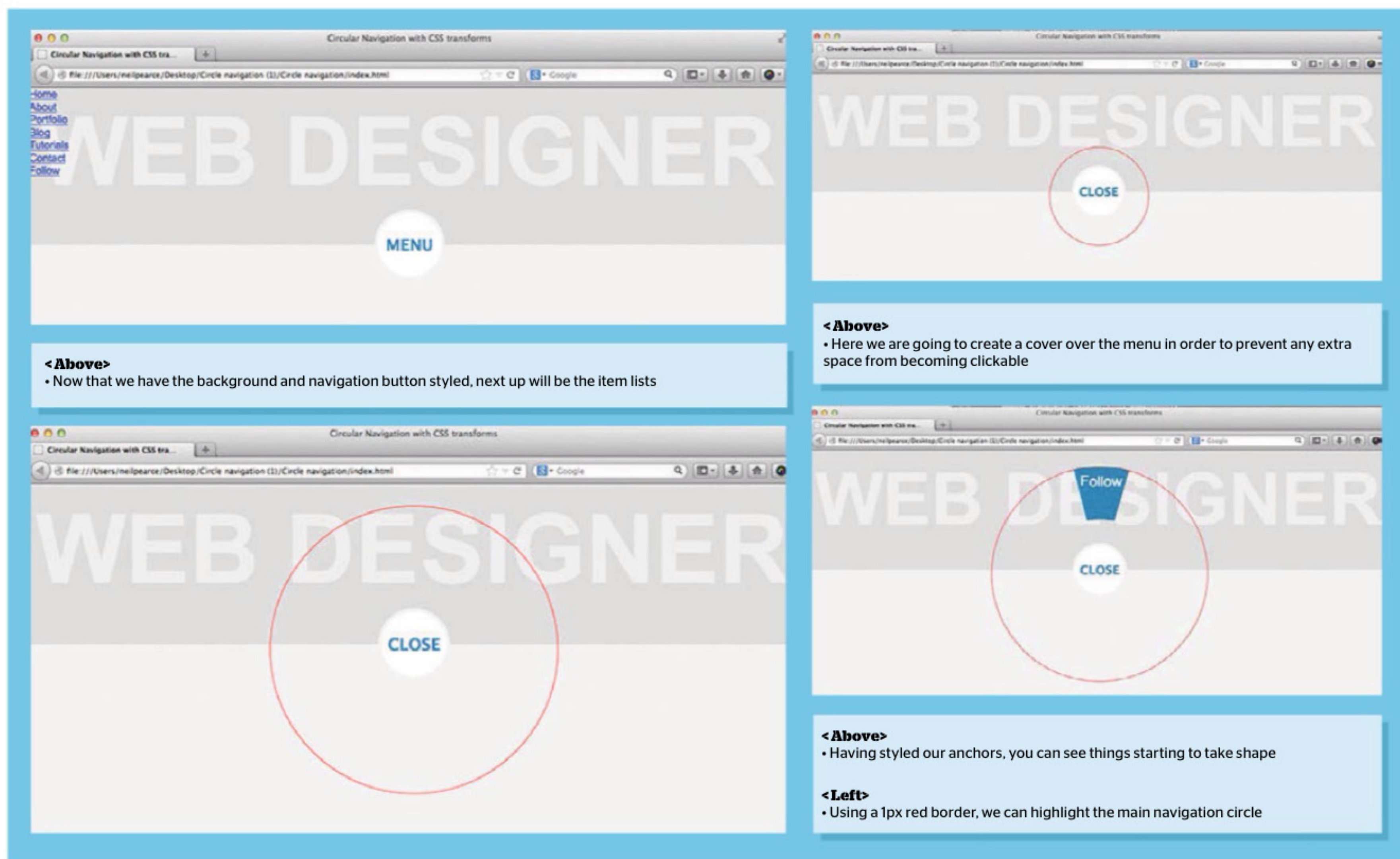
To finish off our HTML, let's add in a couple of scripts at the bottom of our file, just above the `</body>` tag. We have included these scripts for you, but they are located on the resource CD as it's a bit beyond the scope of this tutorial with exactly how they are written. However, we will quickly go through what they do in a later step.

```
001 <script src="js/polyfills.js"></script>
002 <script src="js/scripts.js"></script>
```

06 Default styles

Now we create a new CSS file called 'styles.css' and at the top add in some default styles. First we are going to target all elements and make sure that they are positioned relative, before checking that 'box-sizing' is set to 'border-box'. What means is that any padding or border specified on any element can be laid out and drawn inside its specified width and height.

```
001 * {
002   position: relative;
003   box-sizing: border-box;
```

```
004 list-style: none;
005 margin: 0;
006 padding: 0;
007 }
008 html, body {
009     height: 100%;
010 }
```

07 Container

In this step we're going to add in some styles to our container <div>. This will span across the entire page and hold our page title within. First then, let's make sure it's set to relative. After that we want to give it a bit of height, before setting the background to black and then turning down its opacity to 0.09.

```
001 .container {
002     position: relative;
003     margin-bottom: 2em;
004     height: 15em;
005     background: rgba(0,0,0,0.09);
006     font-family: Arial, sans-serif;
007 }
```

08 Page title

At this stage we're going to improve the look of our page title by applying some styles to it. First of all we make

sure it's positioned absolute and anything overflowing is hidden. Then we give it some width and make sure it's centred. We also want to make the effect a little more subtle by setting the opacity to 0.5.

```
001 .container > h2 {
002     position: absolute;
003     overflow: hidden;
004     width: 100%;
005     text-align: center;
006     text-transform: uppercase;
007     white-space: nowrap;
008     font-size: 9em;
009     opacity: 0.5;
010     cursor: default;
011     padding: 15px;
012 }
013 }
```

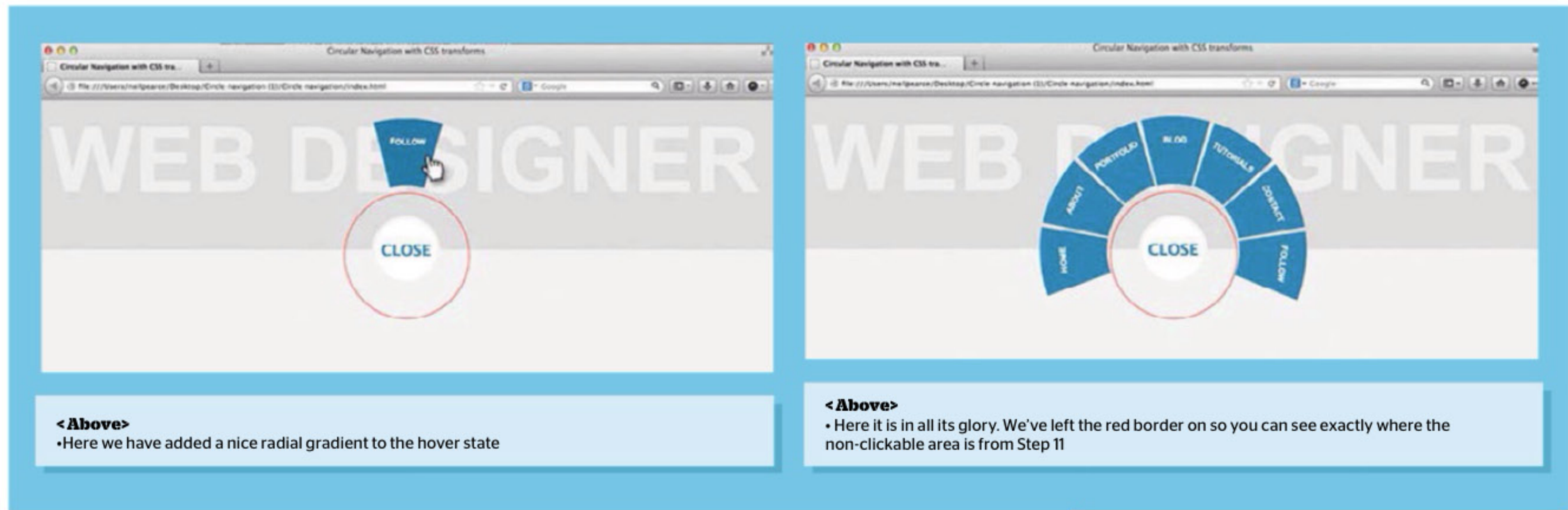
09 Menu button

Now we can create our main clickable menu button. We need to position this absolute and use a percentage for the top and left properties. Further down we give it the same width and height, but then set the radius to 50% so as to create a circle. Finally, we make sure the outline is set to 'none', which gets rid of the yellow border after it's been clicked within Chrome.

```
001 .button {
002     position: absolute;
003     top: 100%;
004     left: 50%;
005     z-index: 11;
006     margin-top: -2.25em;
007     margin-left: -2.25em;
008     padding-top: 0em;
009     width: 4.5em;
010     height: 4.5em;
011     border: 5px solid rgba(0,0,0,0.05);
012     border-radius: 50%;
013     background: none;
014     background-color: #fff;
015     color: #1780b4;
016     text-align: center;
017     font-weight: 700;
018     font-size: 1.5em;
019     text-transform: uppercase;
020     cursor: pointer;
021     -webkit-backface-visibility: hidden;
022     outline: none;
023 }
```

10 The navigation

Here we're going to target the whole navigation, positioning it and applying some styles. We're going to use



the same positioning and radius as the button but make the width a lot bigger. We then make sure it's hidden by setting the opacity to zero, and then giving it some animation by using 'transition' and 'transform'.

```
001 .nav-wrapper {
002   position: absolute;
003   top: 100%;
004   left: 50%;
005   z-index: 10;
006   margin-top: -13em;
007   margin-left: -13.5em;
008   width: 27em;
009   height: 27em;
010   border-radius: 50%;
011   background: transparent;
012   opacity: 0;
013   transition: all .3s ease 0.3s;
014   transform: scale(0.1);
015   pointer-events: none;
016   overflow: hidden;
017 }
```

11 Less clickable areas

In this next CSS rule, we are going to create a cover over the menu to prevent any extra space becoming clickable. Without this, when you roll your cursor over the white space in between each navigation button, it becomes clickable and we don't want this. Let's put a red border around this to see what we mean after completing the next step – but be sure to remove it later.

```
001 .nav-wrapper:after{
002   content: ".";
003   display: block;
004   font-size: 2em;
005   width: 6.2em;
006   height: 6.2em;
007   position: absolute;
008   left: 50%;
009   margin-left: -3.1em;
010   top: 50%;
```

```
011   margin-top: -3.1em;
012   border-radius: 50%;
013   z-index: 10;
014   color: transparent;
015   border: 1px solid red; /* remove this */
016 }
```

12 Opened navigation

This is where we get to see some action. This rule will allow us to open up our navigation and create a 50% circle. The opacity is set to 1 so that it is visible once the button is clicked on, and the transition is set to three milliseconds. We would recommend that you play around with the transition time, perhaps doubling it to six milliseconds so that it animates slightly slower.

```
001 .opened-nav {
002   border-radius: 50%;
003   opacity: 1;
004   transition: all .3s ease;
005   transform: scale(1);
006   pointer-events: auto;
007 }
```

13 Navigation list items

In this step we're going to add some styles to our list items. However, we won't actually see much until we complete Step 14. What we are doing here is positioning all of our items at the top, stacked on top of one another. We're also using 'transition' for the animation of each one and 'transform' to give us their shape.

```
001 .nav-wrapper li {
002   position: absolute;
003   top: 50%;
004   left: 50%;
005   overflow: hidden;
006   margin-top: -1.3em;
007   margin-left: -10em;
008   width: 10em;
009   height: 10em;
```

Radial-gradient

Using radial-gradient on elements that need colour is a great way to get away from using Photoshop and gives you more control.

```
010   font-size: 1.5em;
011   transition: all .3s ease;
012   transform: rotate(76deg) skew(60deg);
013   transform-origin: 100% 100%;
014   pointer-events: none;
015 }
```

14 The anchors

Now we can see even more action by adding some styles to our anchor tags. Again, we need to make sure our position is set to absolute, and then we use 'bottom' and 'right' properties. After giving them some width and height, we can then give them some colour. We now make sure that they are skewed and rotated to the same degree as our list items, but using a negative value.

```
001 .nav-wrapper li a {
002   position: absolute;
003   right: -7.25em;
004   bottom: -7.25em;
005   display: block;
006   width: 14.5em;
007   height: 14.5em;
008   border-radius: 50%;
009   background: #429a67;
010   background: radial-gradient(transparent
011     35%, #1780b4 35%);
011   color: #fff;
012   text-align: center;
013   text-decoration: none;
014   font-size: 1.2em;
015   line-height: 2;
016   transform: skew(-60deg) rotate(-76deg)
```



```
scale(1);
017   backface-visibility: hidden;
018   pointer-events: auto;
019 }
```

15 Navigation button text

In this step we are going to target the `` tag and style our navigation button text. This is pretty straightforward and you don't need a detailed explanation, however just be cautious with which font and size you use. We set the font family in an earlier step, but it pays to experiment with this where you can.

```
001 .nav-wrapper li a span {
002   position: relative;
003   top: 1.8em;
004   display: block;
005   font-size: .45em;
006   font-weight: 700;
007   text-transform: uppercase;
008 }
009
```

16 Hover, active and focus

Since we are almost done with our list items, one of the last steps would be to give them a hover, active and focus state. So, what we're going to do is keep the gradient on hover, but darken the colour slightly. We're also going to keep to this colour on the active and focus states.

```
001 .nav-wrapper li a: hover,
002 .nav-wrapper li a: active,
003 .nav-wrapper li a: focus {
004
005   background: radial-gradient(transparent
006   35%, #1775a4 35%);
007 }
```

17 Opened-nav class

Here we're creating a rule with a class that our JavaScript ('scripts.js') file will use. This will determine when the navigation is open and dynamically include the class - then we set the speed at which it opens. At the moment however, we can't see that happening until we complete the final few steps - so let's power through!

```
001 .opened-nav li {
002   transition: all .3s ease .3s;
003 }
```

18 First and second child

When the 'open-nav' class has been added by our script, we need a way to spread the list items out. Of course, the only way to do that is to transform and rotate them. So in this rule, we target the first child and the second child and rotate and skew them accordingly.

```
001 .opened-nav li: first-child {
002   transform: rotate(-20deg) skew(60deg);
```

```
003 }
004
005 .opened-nav li: nth-child(2) {
006   transform: rotate(12deg) skew(60deg);
007 }
```

19 The other children

Let's continue rotating our navigation buttons and target the other list items within our navigation list. You may notice we are skewing them all by the same degree (60deg) but using a different degree on the rotate. Again, we would encourage you to have a play around with these numbers so you can see how this works.

```
001 .opened-nav li: nth-child(3) {
002   transform: rotate(44deg) skew(60deg);
003 }
004 .opened-nav li: nth-child(4) {
005   transform: rotate(76deg) skew(60deg);
006 }
007 }
008 .opened-nav li: nth-child(5) {
009   transform: rotate(108deg) skew(60deg);
010 }
011
012 .opened-nav li: nth-child(6) {
013   transform: rotate(140deg) skew(60deg);
014 }
015
016 .opened-nav li: nth-child(7) {
017   transform: rotate(172deg) skew(60deg);
018 }
019 }
```

20 Responsive navigation

One of the last things we need to do is to make our navigation responsive. We all know responsive web design is a major part of our workflow these days, and this is no exception. First we're going to target the tablet (iPad) by setting the 'max-width' to 600px, which will change the padding on our 'nav-wrapper'.

```
001 @media only screen and (max-width: 600px) {
002   .nav-wrapper {
003     padding: .5em;
004   }
005 }
006 }
```

21 Finish up

Now let's make sure our navigation is responsive for mobile phones. We need to change the 'max-width' to 480px; when we reach this size we need to change the font size so it doesn't break our navigation. Finally we do the same with the font on our navigation button by targeting the 'button' class.

```
001 @media only screen and (max-width: 480px) {
002   .nav-wrapper {
003     font-size: .68em;
```

:nth-child(20n+6)

Every 20 Elements 6th Element

Using the :nth-child selector

There is a CSS selector that we've been using, which allows you to select the exact item you want from a list. This selector is the 'nth-child' selector, which is sometimes referred to as a pseudo-class such as 'first-child' or 'last-child'.

This pseudo-class matches elements on the basis of their positions within a parent element's list of child elements. The 'nth-child' selector accepts an argument, N, which can be a keyword, a number, or a number expression of the form $n+6$. By passing in a 'n+' number into the nth-child selector, you can make it pick all elements from this number onwards.

```
001 :nth-child(n+6)
```

By passing just a number to the 'nth-child' selector, you can define which child to return from the selector group. In our case, we kept things nice and simple and targeted all seven of our list items specified within their own CSS rule, because we wanted each one to do something slightly different to the other.

```
001 li: nth-child(4)
```

Browser prefixes

Don't forget to add in your browser prefixes. An easy-to-use website that will help you do exactly that is prefix.com. Simple!

```
004 }
005 .button {
006   font-size: 1em;
007 }
008 }
009
```

22 Final thoughts

Following along to a tutorial like this is a sure-fire way to get a good foothold on CSS transforms and transitions. However, it is highly recommended that you experiment with transforms and learn more about the mathematics involved, which will help you to really master it all. Once you've done that you can create some truly stunning animations for your own projects.

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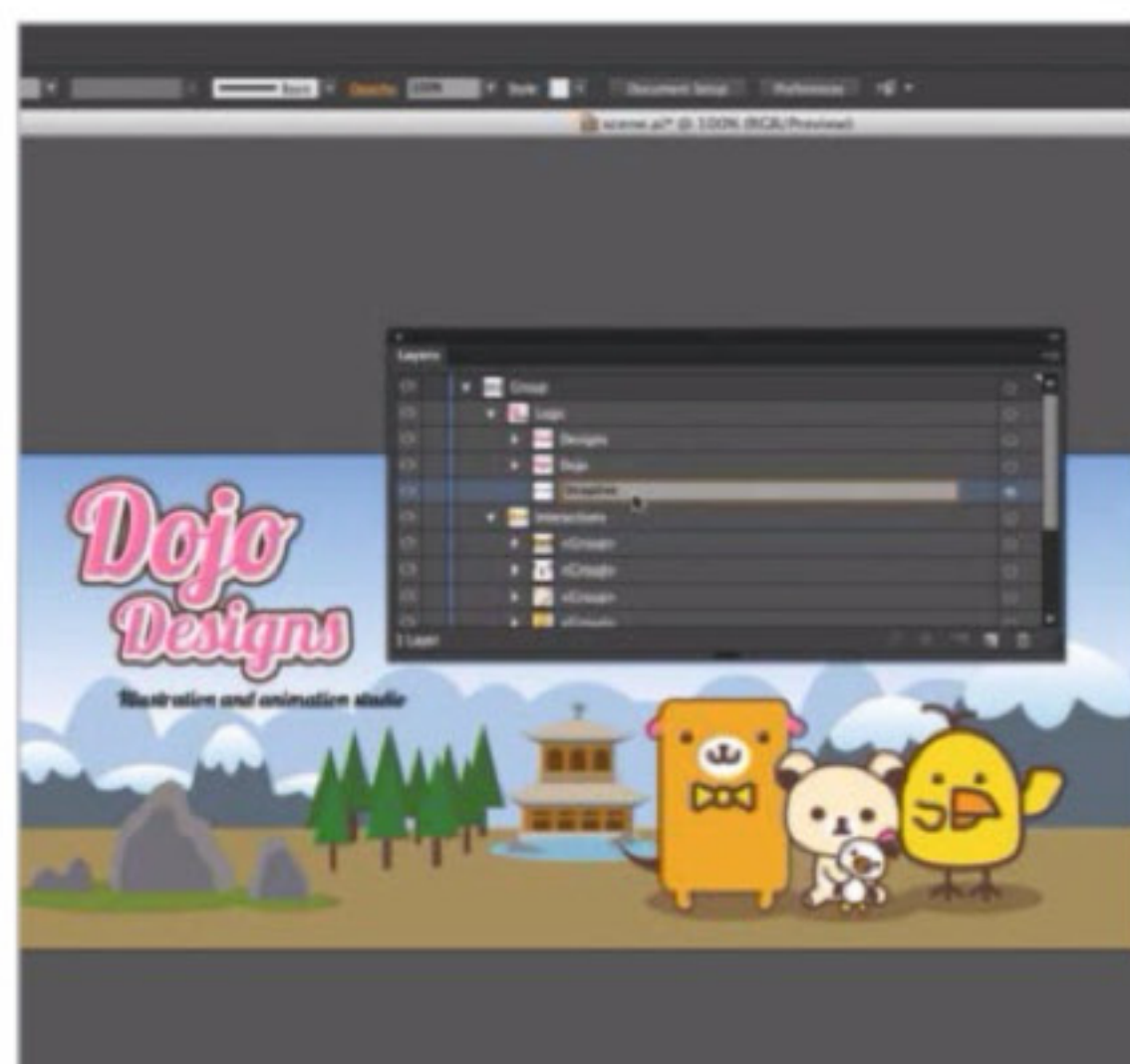
This tutorial will be working with adding both animation and interactivity to an SVG graphic with the new Snap.svg library. The SVG format is now 14 years old and yet it has really only just started to get traction as a web

format over the last few years. Because it is a vector format, the image is made up out of mathematical points rather than out of pixels – and this is what makes it scalable. Snap.svg has been created by the author of Raphael.js (an earlier SVG library) to take advantage of modern browser capabilities and is created in a simple jQuery-like way.

In the tutorial we are going to cover naming content in Illustrator, which will output as IDs in the SVG file, adding Google fonts to style up your logo in the SVG, loading the SVG using Snap.svg then adding both animation and interactivity to your image using Adobe's new Snap.svg library.

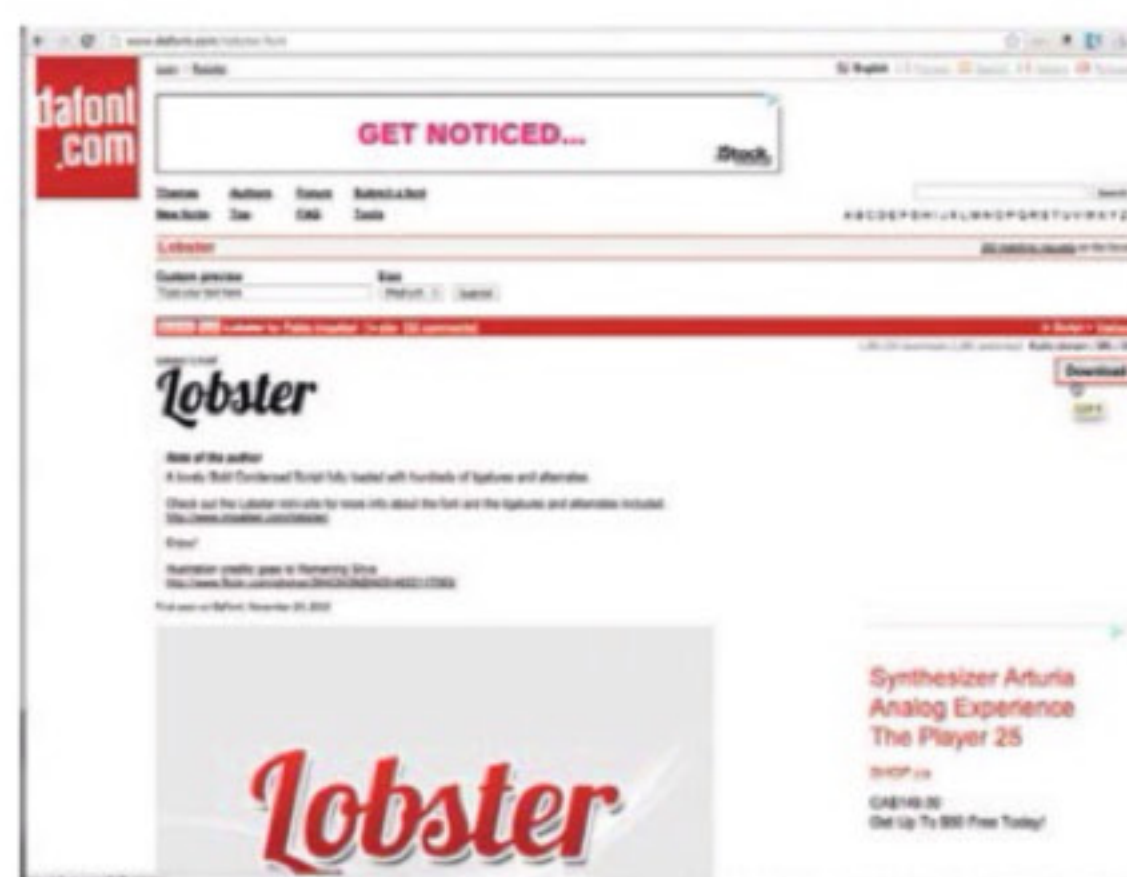
01 Get started

To start this project drag the Start Folder from the resource CD and place it in your local server folder such as MAMP/LAMP/WAMP. The Snap library uses AJAX to load the SVG so we need a server. Open 'Scene.AI' in Illustrator, open the Layers panel and drag it out to its own window. Inside the 'Logo' group, rename the content to 'Designs', 'Dojo' and 'Strapline'.



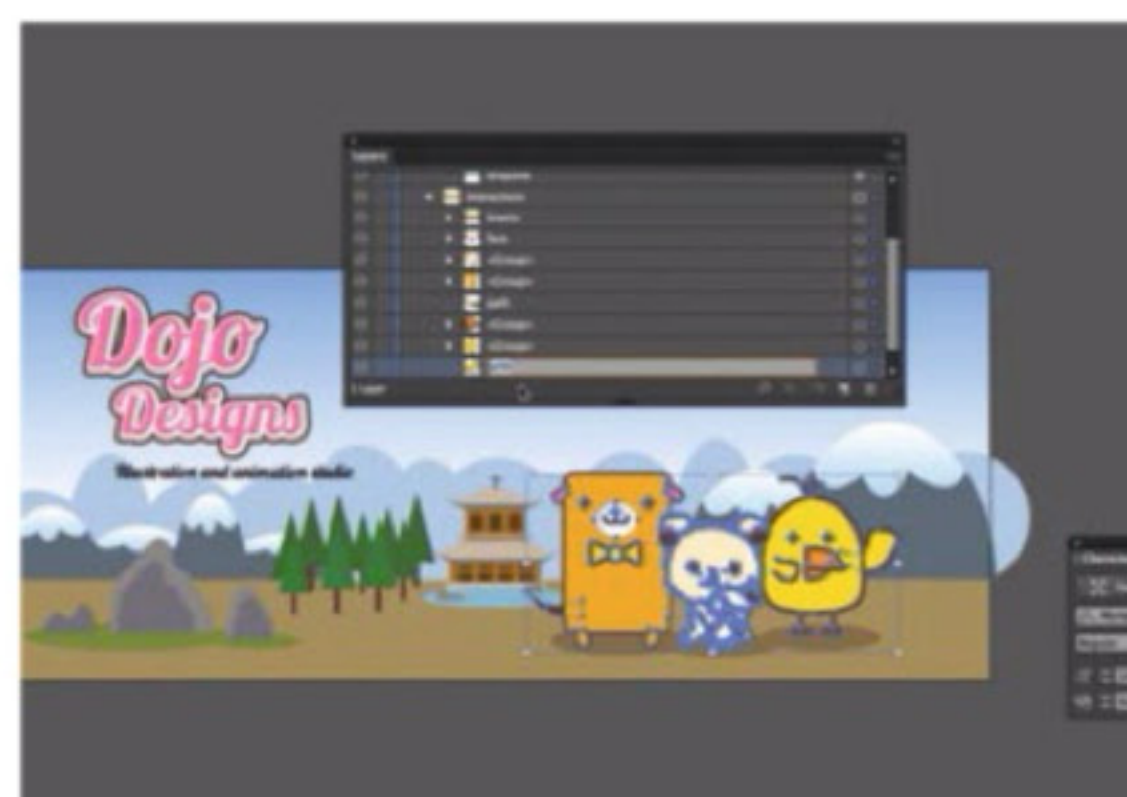
02 Install the font

We are using the typeface 'Lobster' in the design because this is available on Google Fonts as a web font. If you don't have it installed and it's not displaying correctly, go over to www.dafont.com/lobster.font to download and install it. Once installed, you may need to restart Illustrator to make it show up.



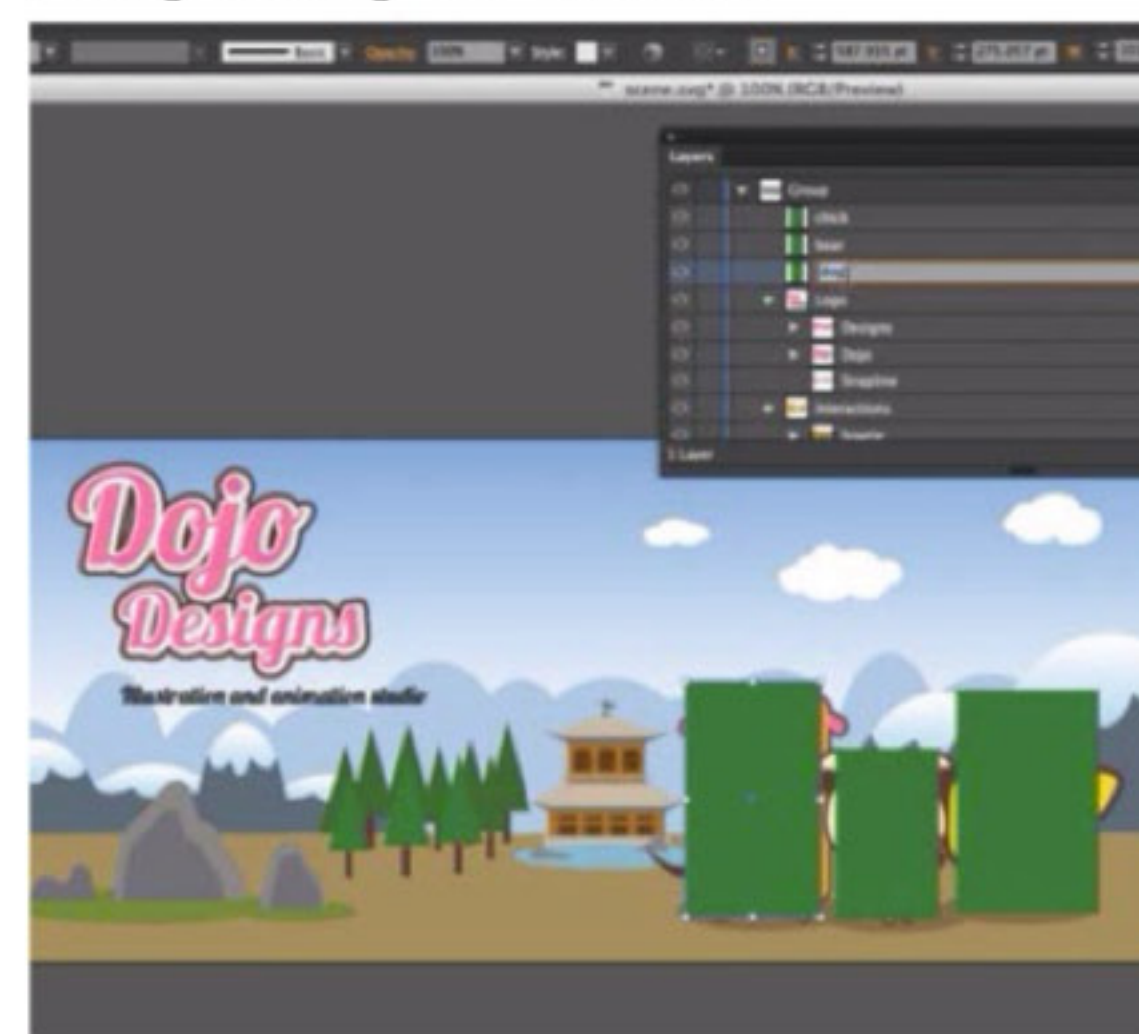
03 Rename the graphics

Head down the 'Interaction' group in the Layers panel and locate the layers that have the bowtie, face and arm graphics on them – rename them as such in the panel. The names we add here will eventually become IDs in the SVG file, so we can add interactivity or animation to them later on.



04 Create hit areas

We are going to make some interactive rollover sections in our code later on, so we need some hit areas to trigger the rollover. Use the Rectangle tool and add three rectangles so that each of the three characters are covered, as shown below. Using the Layer panel, rename each of the three respective rectangles to 'dog', 'bear' and 'chick'.



05 Export the SVG

All that's needed now is to go to File>Save As and choose SVG as the file type. Make sure you save it in the same folder as used previously and name it 'scene.svg'. Click Save and then in the SVG Options window keep all the defaults and click the OK button. At this point we can now minimise Illustrator and open the 'index.html' file in our code editor.

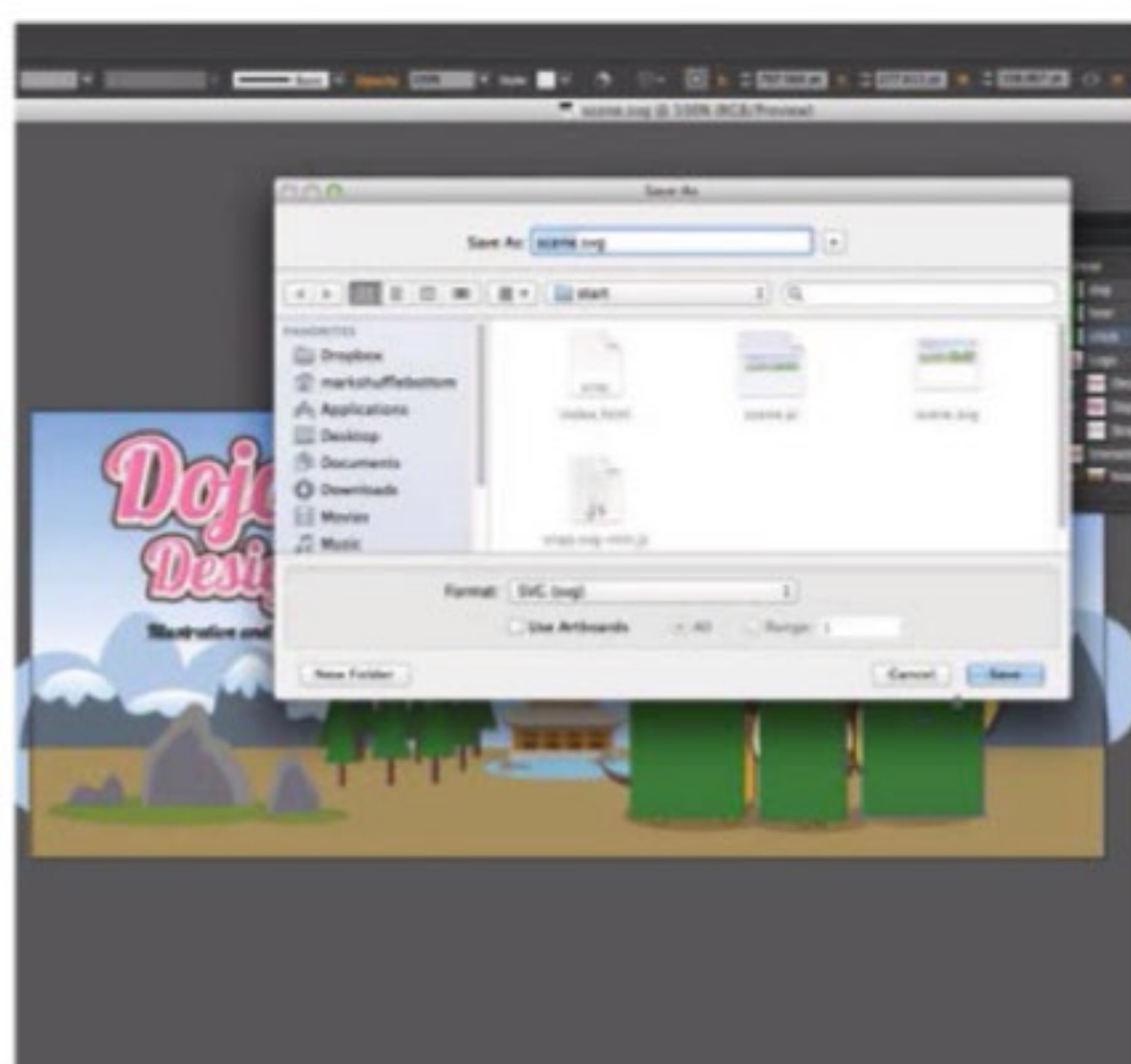
What is an SVG then?

The scalable vector graphic format is an XML file, it's plain text just like your HTML documents. Open it in your code editor and you will be able to read it, but there'll be a lot of numbers!



<Above

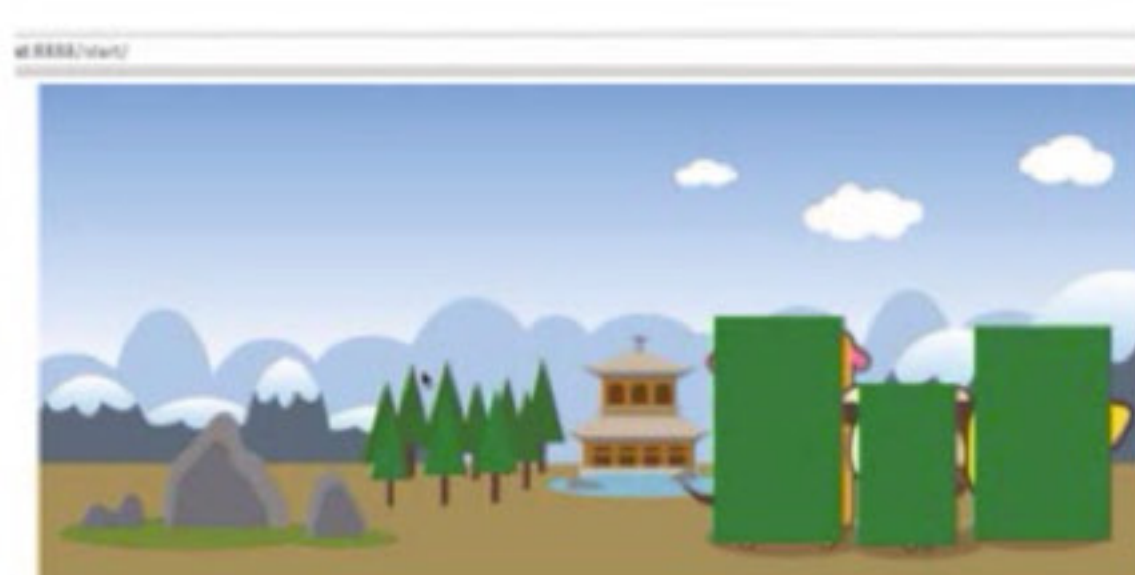
• Using Snap.SVG we can easily add animation and interactivity to our SVG graphics. Snap gives us a simple way to traverse the structure of an SVG and target specific IDs in much the same way as jQuery lets you do with the DOM



06 Add the font

Once you have the 'index.html' page open in your code editor it's time to link up the Google font. We're using 'Lobster', as we used that in Illustrator, so we can style up the SVG with it here. Next we link up the Snap.svg JavaScript library to our document so that we can use that to control our SVG image. Add these lines of code to the head section of your HTML.

```
001 <link href='http://fonts.googleapis.com/css?family=Lobster' rel='stylesheet' type='text/css'>
002 <script src='snap.svg-min.js'></script>
```



07 Typography styling

In Step 1 we named the different elements in Illustrator. These names are converted into IDs, so if we set up CSS style rules we can apply the Google font to them. Copy the code shown into the head section of the HTML document to style up the elements correctly. We also centre our SVG content on the page.

```
001 <style>
002 svg{
003   display: block;
004   margin: 0 auto;
005 }
006 #Dojo{ font-family: 'Lobster',
007        cursive; }
007 #Designs{ font-family: 'Lobster',
008           cursive; }
008 #Strapline{ font-family:
009            'Lobster', cursive; }
009 </style>
```

08 Load the SVG

We are now going to load the SVG file, so add the code shown into the head section of the HTML page. This creates all the variables that we are going to need and, when the window has loaded, we set up a new snap SVG and load the scene into it. Notice we are using the same dimensions as our Illustrator document. Save this and view it in the browser.

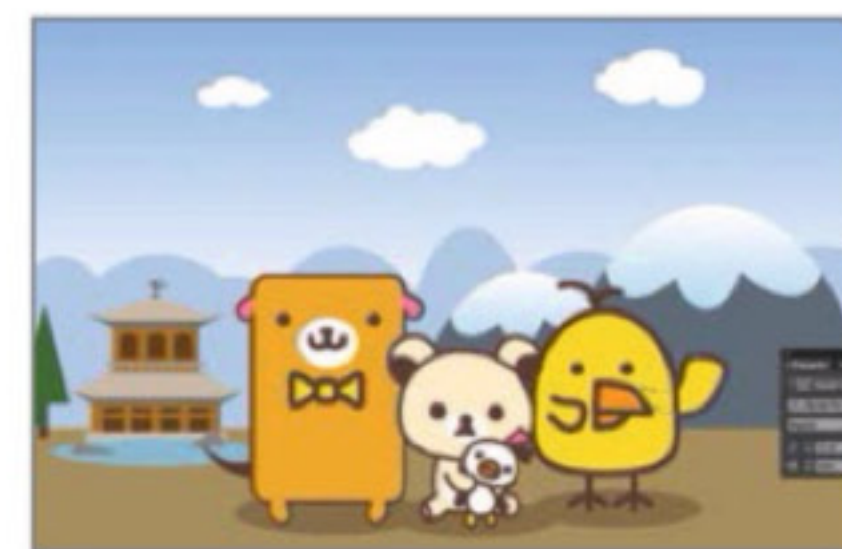
```
001 <script>
002 var dojo, designs, strap, chick,
003     bear, dog, tie, face, arm;
004 var timer;
005 window.onload = function () {
006   var s = Snap(960, 400);
007   Snap.load("scene.svg", function(f) {
008     s.append(f);
009   });
010 }
```

Animate the arm



01 The arms race

CSS keyframes animate the chick's arm and we use some strange numbers for the origin of the animation. Start by clicking on the arm with the Direct Selection tool.



02 Anchor point

Hover over the icons in the top bar until the pop-up for 'reference point' displays. This is a 3x3 point square. Click on its left-centre point and it will darken when it is selected.



03 Check out the code

The numbers to the right of the reference point are the same as the transform origin code in Step 16. This enables us to rotate the arm around this left-hand reference point.

Make an animated SVG header with Snap.svg



Using the Snap.svg library

The library makes use of AJAX to load the SVG graphics and inject them into the DOM. As it does this it means that just previewing the page in the browser won't work and this will leave us with an empty page. To get this working we need to set up a server to allow us to serve the pages over http.

To do this you can do a Google search for 'MAMP', 'LAMP' or 'WAMP' depending on the OS being used. The 'M' stands for Mac, 'L' for Linux and 'W' is for Windows. With this set up, you will have a 'htdocs' folder, which is where you will place your web documents. You can alternatively do a search for Node.js and download and install that instead if you prefer, but it is a little more complicated. If you have a server online, then obviously you can just upload the files to there instead.

```
008 };
009 </script>
```

09 Select the elements

If all went according to plan and you viewed your page from a web server or local server, then you should have seen your SVG displayed. We now need to work with our logo and make it animate onto the screen as the page loads. Add the following code and make sure it's added to the line before 's.append(f)'. This stores the elements in variables.

```
001 dojo = f.select("#Dojo");
002 designs = f.select("#Designs");
003 strap = f.select("#Strapline");
```

10 Hide the logo

Add the code shown before the 's.append(f);' line. This code changes the opacity of all elements to zero and therefore makes it invisible in the document. The 'dojo' and 'designs' text is also scaled down as well to 10 per cent of the original size. If you refresh your browser now you will see the changes reflected.

```
001 dojo.attr({opacity: 0, transform:
```

CSS keyframes

Keyframes are elements to be blended together by changing one set of CSS styles to another, dictating what something should look like at different points along the animation.

```
002 "scale(0.1, 0.1)" });
003 designs.attr({opacity: 0,
004   transform: "scale(0.1, 0.1)" });
005 strap.attr({opacity: 0});
```



11 Animate the logo

Add the code shown below after where the last code was added. Here we animate the 'dojo' text into place by scaling it up and bringing the opacity up. This is done using elastic easing so that it bounces into place. We then set a timer to delay by half a second and we animate the 'designs' text and the strapline. Save and refresh your browser to see.

```
001 dojo.animate({opacity:1, transform:
002   "scale(1, 1)"},800, mina.elastic);
003 timer = setTimeout(designIn, 500);
004 function designIn() {
005   clearTimeout(timer);
006   designs.animate({opacity:1,
007     transform: "scale(1, 1)"},800, mina.
008     elastic);
009   strap.animate({opacity:1}, 1500);
010 }
```

12 Change opacity

Now add the following code as shown after the previous code that we added. Here we are storing the IDs of the graphics in variables to make it easy to manipulate them. We set the Opacity of the hit areas to zero so we can't see the green rectangles over the characters. The last line is commented out because we haven't created the CSS class for arm just yet.

```
001 chick = f.select("#chick");
002 bear = f.select("#bear");
003 dog = f.select("#dog");
004 tie = f.select("#bowtie");
005 face = f.select("#face");
006 arm = f.select("#arm");
007 chick.attr({opacity: 0});
008 bear.attr({opacity: 0});
009 dog.attr({opacity: 0});
010 //arm.attr({'class': 'arm'});
```

13 Animate the dog

Place the code below after the line 's.append(f);'. This adds a hover event to the dog. When the mouse is over the function, dogOver is called and when the mouse rolls out, dogOut is called. We animate the bowtie of the dog to spin 360 degrees over .4 seconds, and rotate it back to 0 when the mouse is rolled out.

```
001 dog.hover(dogOver, dogOut);
002 function dogOver() {
003   tie.animate({ transform:"t0,0r360"},
004     400);
005 }
006 function dogOut() {
007   tie.animate({transform:"t0,0r0"},
008     400);
009 }
```



14 Interactive bear

Now we add our rollover functions for the bear. In this case we see that we make the bear's face pop out over a period of .4 seconds. When it moves back into position it uses the 'backin' animation preset, making the face get slightly bigger before returning to its original size. Refresh your browser to test.

```
001 bear.hover(bearOver, bearOut);
002 function bearOver() {
003   face.animate({
004     transform:"t0,0s1.5"}, 400, mina.
005     elastic);
006 }
007 function bearOut() {
008   face.animate({transform:"t0,0s1"},
009     200, mina.backin);
010 }
```

15 CSS3 keyframes

We are going to set up some CSS keyframes now, so go to the style tag in the head section of the

document and add the code shown below. Duplicate this and change all of the '-webkit' prefixes to '-moz' on the duplicate. We are going to use these keyframes in the CSS we set up in the next step.

```
001 @-webkit-keyframes wave{
002 0% {
003   -webkit-transform: rotate(0deg);
004 }
005 50% {
006   -webkit-transform: rotate(30deg);
007 }
008 100% {
009   -webkit-transform: rotate(0deg);
010 }
011 }
012
```

16 Apply keyframes

Now add the following rules so that we can rotate the arm back and forth using the wave animation keyframes. The arm has the class 'arm' applied, when we rollover the arm we are going to add the extra class of 'animating' which plays those 'wave' keyframes over a period of .4 seconds and repeats this process.

```
001 .arm {
002   -webkit-transform-origin: 808px
003   273px;
004   -webkit-transition: -webkit-
005   transform .4s;
006 }
007 .arm.animating {
008   -webkit-animation: wave .4s
009   infinite;
010 }
011
```

17 Final step

We will now uncomment the line 'arm.attr({'class': 'arm'});' that we added in Step 12 by removing the two slashes at the beginning of the line. Now add the code shown below after the 'bearOut' function from Step 14. This applies and removes the class of 'animating' to the arm when the chick graphic is hovered over. Save and test in the browser to view your animation.

```
001 chick.hover(chickOver, chickOut);
002 function chickOver() {
003   arm.attr({'class': 'arm
004               animating'});
005 }
006 function chickOut() {
007   arm.attr({'class': 'arm'});
008 }
009 }
```

Code library

Interact with the SVG

Snap.svg gives us a simple JavaScript library for manipulating and working with the SVG graphics, enabling us to apply animations and rollover effects with ease

The Snap.svg library loads the SVG graphic via AJAX and then adds this to the DOM. Before we add it though, we can alter how elements look so that we can animate them into position.

We animate the logo into position on the page by using 'animate' method. This allows our logo to appear in its final position of the SVG after it's animated into place.

Snap has some easing functions built in so we can apply an elastic, bouncing into position for the logo as it scales up into place.

The hit areas we created for hovering over the creatures in Illustrator are made invisible so they cannot be seen. It's sometimes useful to have slightly larger hit areas, then the user stands more chance of finding these hidden gems.

Each of the creatures have a rollover and rollout function attached to them that is called when the mouse rolls over and out of the hit area. These functions then trigger the animation to play.

```
001 <script>
002 var dojo, designs, strap, chick, bear, dog, tie, face, arm;
003 var timer;
004 window.onload = function () {
005   var s = Snap(960, 400);
006   Snap.load("scene.svg", function(f) {
007     dojo = f.select("#Dojo");
008     designs = f.select("#Designs");
009     strap = f.select("#Strapline");
010     dojo.attr({opacity: 0, transform: "scale(0.1, 0.1)"});
011     designs.attr({opacity: 0, transform: "scale(0.1, 0.1)"});
012     strap.attr({opacity: 0});
013     dojo.animate({opacity:1, transform: "scale(1, 1)"}),800,
014     mina.elastic);
015     timer = setTimeout(designIn, 500);
016     function designIn() {
017       clearTimeout(timer);
018       designs.animate({opacity:1, transform: "scale(1,
019 1)"}),800, mina.elastic);
020       strap.animate({opacity:1, 1500});
021       chick = f.select("#chick");
022       bear = f.select("#bear");
023       dog = f.select("#dog");
024       tie = f.select("#bowtie");
025       face = f.select("#face");
026       arm = f.select("#arm");
027       chick.attr({opacity: 0});
028       bear.attr({opacity: 0});
029       dog.attr({opacity: 0});
030       arm.attr({'class': 'arm'});
031       s.append(f);
032       dog.hover(dogOver, dogOut);
033       function dogOver() {
034         tie.animate({ transform:"t0,0r360"}, 400); }
035       function dogOut() {
036         tie.animate({transform:"t0,0r0"}, 0); }
037       bear.hover(bearOver, bearOut);
038       function bearOver() {
039         face.animate({ transform:"t0,0s1.5"}, 400, mina.
040         elastic); }
041       function bearOut() {
042         face.animate({transform:"t0,0s1"}, 200, mina.backin);
043       }
044       chick.hover(chickOver, chickOut);
045       function chickOver() {
046         arm.attr({'class': 'arm animating'});
047       }
048       function chickOut() {
049         arm.attr({'class': 'arm'});
050       }
051     };
052   </script>
```


web workshop

Blur and focus your typography with Font Font

inspiration www.ffmark.com



When typefaces are the very nature of your business, such as with Font Font, who design and produce some of the best typefaces in the industry, then your site must show these off in all their glory.

The ffmark.com site has some lovely touches on the website, such as being

able to edit type on books, page layouts and even with a world clock. Not only does the user have the ability to edit these typefaces but they can change them and see them in action before purchasing the associated type. This site really shows off the rich typography that is now available for all web designers to use today.

Leading the way

Type geeks may spot a certain Eric Spiekermann in the video running in the background of ffmark.com who is a self-proclaimed 'typophile' and, as you would expect from someone giving themselves that title, he is one of the world's leading experts on typography.

1

INSPIRATION

Focusing the typography

One of the most stunning aspects of the ffmark.com site is the blurred text and background video that appears when you enter the site. As the user scrolls down the page the headline starts to blur, while the background and second text area are brought into focus. The blurring is fairly straightforward to do as it's just adding `'-webkit-filter: blur(32px);'` to see it blurred.

The same technique can also be applied to text but we have shown another way using the text shadow effect and making the text transparent over the top. All we have to do then is change the amount of blur to get the effect.

The screenshot shows the ffmark.com website with several annotations: 1. A blue circle with the number '1' points to the 'FF Mark' headline. 2. A blue circle with the number '2' points to the blurred background text. 3. A blue circle with the number '3' points to the blurred background video. 4. A blue circle with the number '4' points to the 'Info' button in the bottom left corner. 5. A blue circle with the number '5' points to the 'Keep the focus' button in the bottom center. 6. A blue circle with the number '6' points to the 'Fixed and fading' button in the bottom right corner. 7. A blue circle with the number '7' points to the 'More to explore' button in the bottom right corner. 8. A blue circle with the number '8' points to the 'Try it yourself' button in the bottom right corner.

Info button
The info button contains instructions to scroll down just in case the user doesn't understand the arrow. The icon is kept consistent with site branding and the social icons.

Keep the focus
The main headline of the site is in focus while the remaining text and the background, which is a video, is blurred so that the user cannot see the content.

Fixed and fading
As the user scrolls down the page the text and video remain fixed in place but the headline starts to fade out, while the other text and video fade into focus.

More to explore
The arrow at the bottom of the screen is essential in allowing the user to know that there is more content below. This is always particularly useful when the video fills the full screen.

Try it yourself
Once the user scrolls down the page, other content becomes available with more interactive features that enable the user to try out the typography.



<comment>
What our
experts think
of the site

Creating a designer-friendly site

At the kickoff, the designer Alex expressed frustration with programmers who told him what wasn't possible. I said I wanted a challenge. The FF Mark site is the child of these attitudes. The blurring of the full-screen video behind the title is a crazy amount of real-time processing work for the browser, but this was a site targeting a specific, design-friendly audience whom we expected to be running modern browsers on reasonably powerful machines.

Rob Meek - Freelance Designer/Developer

2

TECHNIQUE

Blur text with Scrollr

01 Style the body

We're going to start this project by adding some CSS which can be placed either in the head of the document or in a separate CSS file. Here we are making the font weight bold and increasing the default size of the text on the page. As we are blurring text, it's a good idea to make it just a little bigger.

02 Position the text

We now position our text that will be placed into a container with the ID of intro. We are making this fixed on the screen so that as the scrollbar moves down the page we can still see the text. This is important as we'll be blurring the text. We centre the text on the page.

```
001 #intro {
002   position: fixed;
003   width: 80%;
004   left: 50%; top: 1em;
005   margin-left: -40%;
006   padding: 2em;
007   text-align: center;
008 }
009 .top { margin-bottom: 80px;}
010 </style>
```

03 Add body copy

We will now move to the body section of our HTML document and add in the intro ID <div> to place our text inside. We then add our text to another <div> that has a data element. This will be picked up by

JavaScript with the Scrollr (github.com/Prinzhorn/skrollr) library that we'll add in the final step.

```
001 <div id="intro">
002 <div class="top" data-0="color:
transparent; text-shadow: 0 0 0.1px
rgba(0,0,0,1);" data-1000=" text-
shadow: 0 0 32px rgba(0,0,0,0.5);">
003 <h1>FOCUS YOUR MIND</h1>
004 <p>Scroll down to focus the text</
p>
005 </div>
```

04 The remaining text

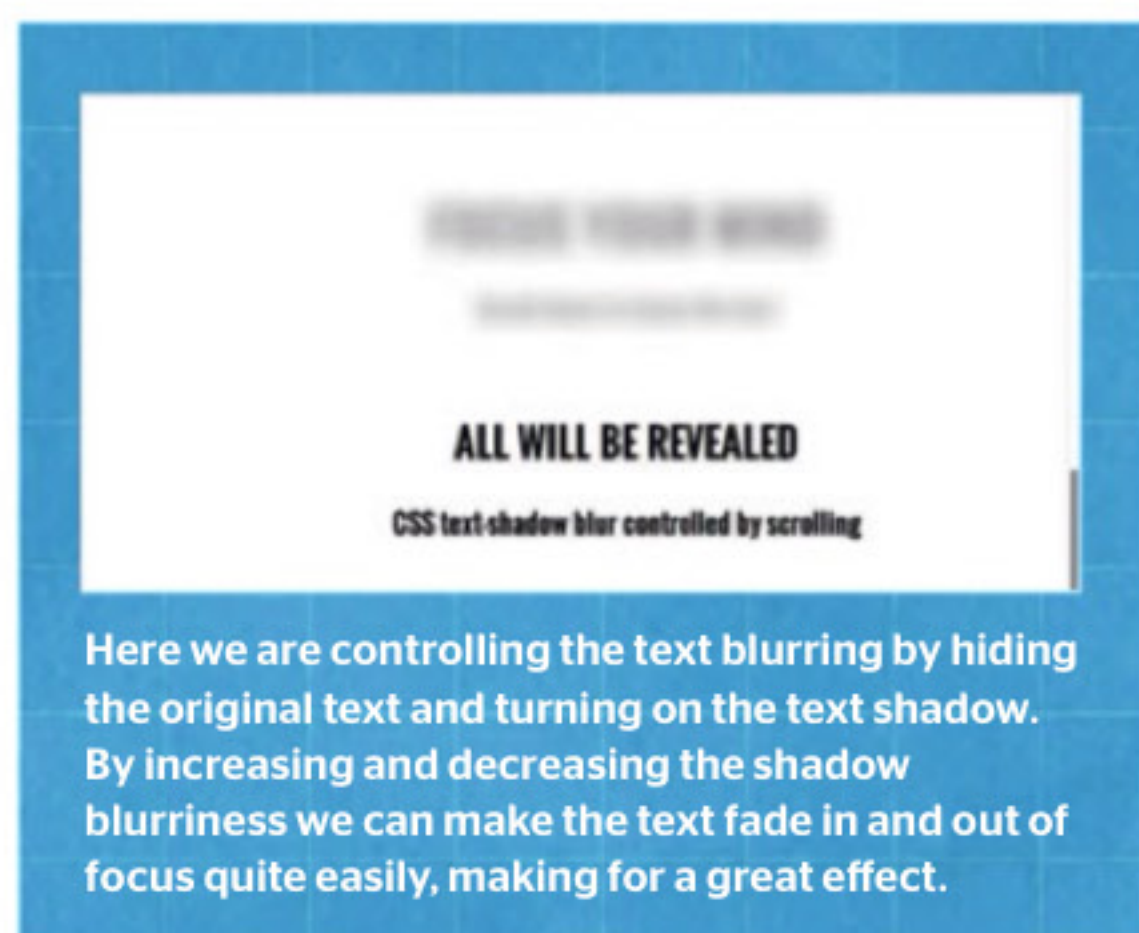
The first text will blur out as the user scrolls and the next text will become sharp. We are doing this by setting a 32px text-shadow blur at 0px scroll, while at 1000px scroll we change the text-shadow blur to 0 - so no blurring at all. We then hide the original text so that we can only see the text shadow.

```
001 <div data-0="color: transparent;
text-shadow: 0 0 32px rgba(0,0,0,0.5);"
data-1000="text-shadow: 0 0 0
rgba(0,0,0,1);">
002 <h2>ALL WILL BE REVEALED</h2>
003 <p>CSS text-shadow blur controlled
by scrolling</p>
004 </div>
005 </div>
```

05 Finishing touches

Download the Scrollr library from GitHub and move the 'dist' folder into your local folder. Then, before the closing body tag, add the code shown below to link up the library and start it all up. Now save the document and view it in the browser to see everything in action.

```
001 <script type="text/javascript"
src="dist/skrollr.min.js"></script>
002 <!--[if lt IE 9]>
003 <script type="text/javascript"
src="dist/skrollr.ie.min.js"></script>
004 <![endif]>
005 <script type="text/javascript">
006 var s = skrollr.init();
007 </script>
```



Here we are controlling the text blurring by hiding the original text and turning on the text shadow. By increasing and decreasing the shadow blurriness we can make the text fade in and out of focus quite easily, making for a great effect.

3

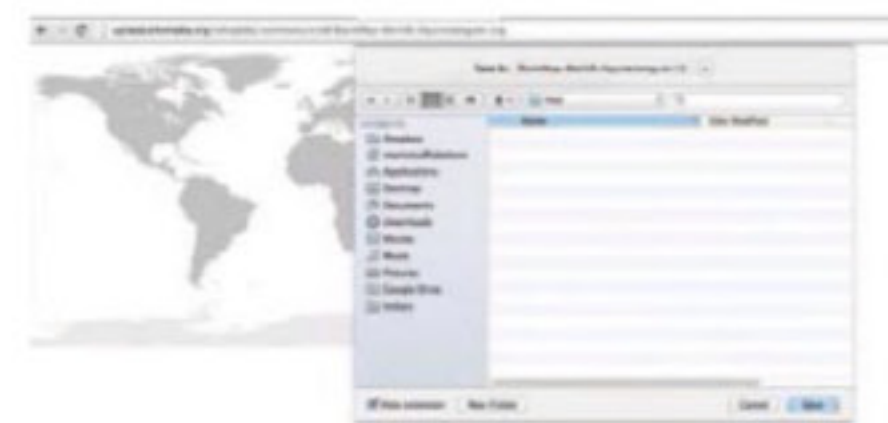
TECHNIQUE

Create the map

The background to the world time section of the site features a large and engaging world map. Here we show how to create and customise a world map for use in your own backgrounds to your sites.

01 Get the map

It's virtually impossible to start drawing a world map - and why bother when there are so many available online? Head over to Wikipedia (bit.ly/pTfg9) as they have several maps available in SVG format, so can be scaled easily to fit any page. Click one that you think will best suit your needs, it will be displayed on its own page, save this page in order to save the SVG image.



02 Edit the map

SVG files can be opened in vector editing applications such as Illustrator or Inkscape. Open the file and change the colour of the fill to one that will suit the design you are creating. You can also select local areas such as Antarctica which you perhaps don't want to display.



03 Save for use

The final step is to use the image on the web so you can either choose File>Save for Web and save as a transparent PNG image or choose File>Save As and choose SVG. Modern browsers will be able to display either one of these in the document.



Build a simple but stylish upload form

For visitors to send you images reliably, you'll need an uploader that works across a variety of platforms, using HTML5, CSS3 and jQuery

tools|tech|trends HTML5, CSS3, jQuery **expert** Jayson Winters



The social media revolution has left no doubt that people really like sharing stuff. Videos, images, restaurant recommendations, 140-character insights on all manner of subjects; the list of things people can share online is seemingly both growing and never-ending.

However, if people can only look at your website, perhaps just downloading some content, maybe you're only providing half an experience - the sound of one hand clapping. Maybe it's time to encourage some genuine contributions from your website visitors? Perhaps you want to run something like a photo competition, or maybe you provide a service where seeing a picture of the customer's car, collectible or whatever would likely help you to provide a quicker and better service.

Whatever your reason for encouraging image uploads, you'll need a reliable solution, one that can handle various different browsers. On top of this, you'll want it to be stylish as well, especially if you are looking to provide the best visitor experience. What are you waiting for? Let's get going!

01 Create your folders

First create folders for storing each of your files. All of the files are provided on the cover disc. The uploader uses the very capable Plupload API that can be downloaded from plupload.com. Please read the upgrade notes if you are using the newest version of the API and change the filenames as necessary.

```
001 css -style.css
002 img -images files here
003 js -jquery-progressbar.min.js
004 -plupload.full.js
005 -plupload.flash.swf
006 -plupload.silverlight.xap
007 uploads -uploaded files goes here
008 -index.html
009 -upload.php
```

02 Create a <div>

In your index.html create a <div> to contain your uploader panel. There is some extra code to enable a little more functionality, like an option to close the uploader panel if it's not needed by clicking on the Close icon in the top-right corner of the panel. Additionally, an option is provided for closing the window after uploading, which is the default setting and can be overridden by clearing the checkbox.

```
001 <div class="upload-form" id="uploader">
002   <h1 class="replace-text">Upload Form</h1>
003   <a href="#" class="close" title="Close
Window"></a>
004   <p>This uploader will take care of all
of your uploader requirements.</p>
005   <div>
006     <a class="button" id="pickfiles"
href="#">Select</a>
007     <a class="button" id="uploadfiles"
href="#">Upload</a>
008   </div>
009   <div id="filelist" class="cb"></div>
010   <div id="progressbar"></div>
011   <div id="closeAfter">
012     <span class="checkbox">
013       <input type="checkbox"
name="checkbox" id="checkbox">
014       <label for="checkbox">Close
window after upload</label>
015     </span>
016   </div>
017 </div>
```

03 Get linked and loaded

The jQuery library is loaded from Google's CDN. You may prefer another source or to host your own version but check the version to avoid potentially difficult to diagnose compatibility issues. The Plupload JavaScript is loaded together with the graphical progress bar that makes use of jQuery UI.

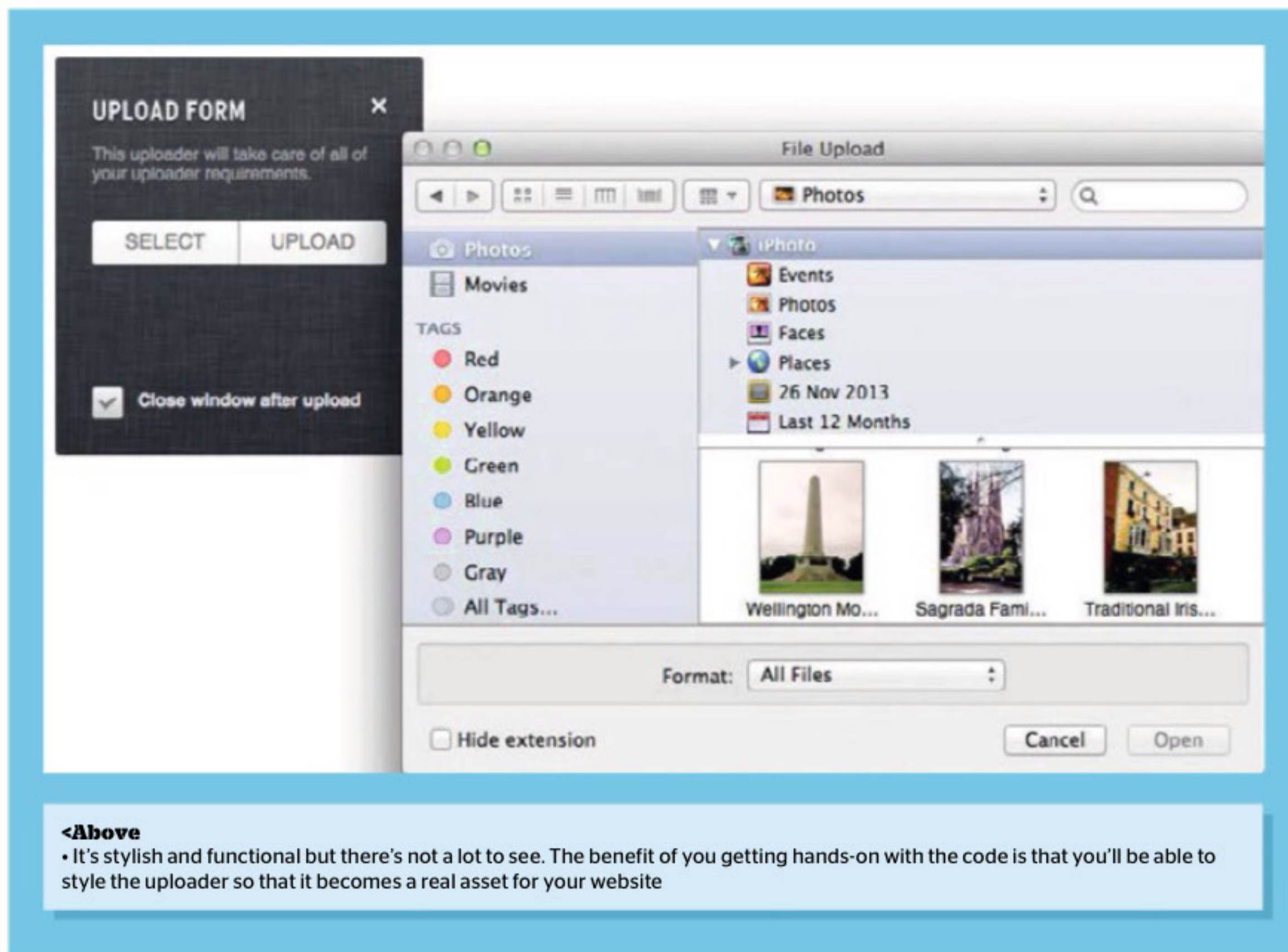
```
001 <head>
002   <meta charset="utf-8">
003   <title>Upload Form</title>
```

```
004   <link rel="stylesheet" href="css/style.
css" media="screen">
005   <script src="https://ajax.googleapis.
com/ajax/libs/jquery/1.7.2/jquery.min.js"></
script>
006   <script src="js/plupload.full.js"></
script>
007   <script src="js/jquery-progressbar.min.
js"></script>
008   <script type="text/javascript">
009     /* this is where the uploader script will
go */
010   </script>
011 </head>
```

04 Configure the script

The required variables are all set. All of the configuration script is well commented by the original author. Note that you can set the maximum file size to suit. Don't set this higher than you need to, or you might find yourself with a large bill from your host if someone decides to upload dozens of huge files to your server.

```
001 <script type="text/javascript">
002   $(function() {
003     var uploader = new plupload.Uploader({
004       runtimes :
005       'html5,flash,silverlight',
006       browse_button : 'pickfiles',
007       multi_selection: false,
008       container : 'uploader',
009       max_file_size : '100kb',
```

The Designmodo way

This tutorial is based on work by Valeriu Timbuc and published by Designmodo, who provide a host of useful resources. Help yourself to their highly rated User Interface Packs at designmodo.com/freebies.

```
009 background: url(../img/upload-bg.png);
010 background: linear-gradient(top,
    rgba(255,255,255,0.1) 0%, rgba(0,0,0,0.1)
    100%), url(../img/upload-bg.png);
011 }
012 .upload-form .cb { clear: both; }
013
```

```
010 url : 'upload.php',
011 flash_swf_url : 'js/plupload.
flash. swf',
012 silverlight_xap_url : 'js/
plupload.silverlight.xap',
013 filters : [ {title : "Image
files", extensions : "jpg,gif,png"} ]
014 });
```

05 Uploading and file handling

Clicking on the button with the id #uploadfiles starts the uploader. The uploader instance is initialised and the scripts listen for new events. When the user selects a file it appends a <div> with 'addedFile' and allocates unique id to then '#filelist' <div>. If there is an error, an alert window will be opened with a message and error code - for example, if a user tries to upload with file extension that isn't permitted.

```
001 $('#uploadfiles').click(function(e) {
002     uploader.start();
003     e.preventDefault();
004 });
005
006 uploader.init();
007
008 uploader.bind('FilesAdded',
009 function(up, files) {
010     $.each(files, function(i, file) {
011         $('#filelist').append('<div
class="addedFile" id="' + file.id + '"> +
file.name + '<a href="#" id="' + file.id + '"
class="removeFile"></a>' + '</div>');
012     });
```

```
013     up.refresh();
014 });
015
016 uploader.bind('Error', function(up,
err) {
017     alert("Error: " + err.code + ",
Message: " + err.message + (err.file ? ", File:
" + err.file.name : "") + "");
018     up.refresh();
019 });
```

06 Remove, progress and close

The user has the option of removing any file added by clicking on the Remove button that was generated during the adding stage. Once the upload has started, the progress bar is added. Two options are provided for closing the window, either after an upload or at any time by clicking on the close button.

07 Style the uploader

Resets and vendor prefixes appear in the CSS but are not shown here. The uploader window is styled simply and a gradient is overlaid. When deciding on the window size, remember you need to allow space for the filename(s) and progress bar that appear during use.

```
001 .upload-form {
002     position: relative;
003     z-index: 100;
004     cursor: default;
005     width: 200px;
006     min-height: 180px;
007     padding: 25px 25px 65px 25px;
008     border-radius: 3px;
```

08 Title, close and paragraph

This is all fairly standard stuff, but of particular interest is the title replacement using the text-indent technique. You might want to use a webfont for your title, but this is the old-school method - or how to do it if you need a graphic to appear here.

09 Create some buttons

CSS-only buttons here as you might expect. All of the styling is kept quite understated as the form is just a utility, but you are free to inject your own personality (or that of the site that the form will be added to) so that you can make it your own.

```
001 .upload-form .button {
002     display: inline-block;
003     height: 30px;
004     margin: 15px 0;
005     font-family: sans-serif;
006     font-size: 14px;
007     color: #777;
008     text-decoration: none;
009     text-transform: uppercase;
010     text-align: center;
011     line-height: 30px;
012     background: #ffffff;
013     background: linear-gradient(top, #ffffff
0%, #f6f6f6 100%);
014 }
```

10 More polish applied

A subtle state change is added to the buttons to give the user some feedback when they hover. Note how only left-hand corners of the left button and the right-hand corners of the right button are rounded. A 1px



Explore all of your uploading options

It is definitely worth checking around to see what other options are available that will meet all of your uploading requirements. Fine Uploader (fineuploader.com) is feature rich and highly configurable. Uploadify (www.uploadify.com) provides a free Flash-Based uploader (argh!) but the HTML5 version will cost you \$5. WordPress users are spoilt for choice with a host of plug-in varieties. WordPress itself added Plupload to its core to meet all back-end uploading needs.

If you want to provide the richest user experience, you'll need to think as broadly as you can about what visitors want from your site and how you can make their visit more rewarding for them - and hopefully for you. When you start to put the user in charge of some of what goes on with your site (for example, with a community site), it adds value to their experience and that of other users - and that is worthwhile interaction.

border on right-hand side of the Select button provides a neat divider between the buttons.

```
001 .upload-form .button:hover {
002     background: #f2f2f2;
003     background: linear-gradient(top, #f2f2f2
004 0%, #eaeaea 100%);
005 }
006 .upload-form #pickfiles {
007     width: 99px;
008     float: left;
009     border-right: 1px solid #999;
010     border-radius: 3px 0 0 3px;
011 }
012 .upload-form #uploadfiles {
013     width: 100px;
014     float: right;
015     border-radius: 0 3px 3px 0;
016 }
```

No, you can't fax it

Not too long ago it was fairly uncommon for a site visitor to upload files to a website. Today, if someone wants to share a file this way, there is high expectation this option will be available, so don't disappoint your visitors.

11 Style selected filenames

The names of the files selected by the user are displayed in the uploader window and need to be styled. A file icon is added as an extra refinement. You might like to use an icon font instead of a PNG.

12 Remove file option

A little cross is added to the Added File button that the user may click on to remove that file from the upload queue. As with the other PNG, you could also use an icon font if you wished.

```
001 .upload-form a.removeFile {
002     position: absolute;
003     display: block;
004     width: 10px;
005     height: 10px;
006     top: 10px;
007     right: 10px;
008     background: url(../img/remove-file.png);
009 }
```

13 Progress bar styles

The jQuery UI progress bar script generates classes that need to be styled. Here a 4px height is set together with a 1px radius border. A background colour (for the unfilled area) is set, along with a small shadow.

```
001 .upload-form .ui-progressbar,
002 .upload-form .ui-progressbar-value {
003     position: relative;
004     height: 4px;
005     border-radius: 1px;
006 }
007
008 .upload-form .ui-progressbar {
009     cursor: pointer;
010     margin: 15px 0 20px 0;
011     background: #242424;
012     box-shadow: 0px 1px 0px
013     rgba(255,255,255, .1);
014 }
```

14 Progress value and tooltip

The progressbar-value is the class that shows how much of the file has been uploaded and it is given a green gradient. The tooltip is then styled. The script takes care of everything else relating to the progress bar.

```
001 .upload-form .ui-progressbar-value {
002     background: #82d344;
003     background: linear-gradient(top, #82d344
004 0%, #51af34 100%);
005 }
006 .upload-form .ui-progressbar-value span.
007 progressTooltip
008 {
009     position: absolute;
010     display: block;
011     width: 36px;
012     height: 14px;
013     padding: 5px 0 4px 0;
014     top: 10px;
015     right: -18px;
016
017     font-family: sans-serif;
018     font-weight: bold;
019     line-height: 14px;
020     text-align: center;
021     font-size: 12px;
022     color: #646464;
023
024     background: transparent url(../img/
025     tooltip.png) no-repeat;
```

15 Style the checkbox

Next, it's time for a rather clever and neat way of replacing the otherwise unstyleable checkbox. The standard checkbox is hidden and a span tag is used to display a replacement. The PNG contains both checked and unchecked states.

```
001 .upload-form #closeAfter {
002     position: absolute;
003     bottom: 25px;
004     left: 25px;
005 }
006
007 .js .upload-form span.checkbox
008 input[type=checkbox] {
009     position: fixed;
010     left: -99px;
011 }
012
013 .upload-form span.checkbox {
014     position: relative;
015     margin-top: 15px;
016     float: left;
017 }
018 }
```

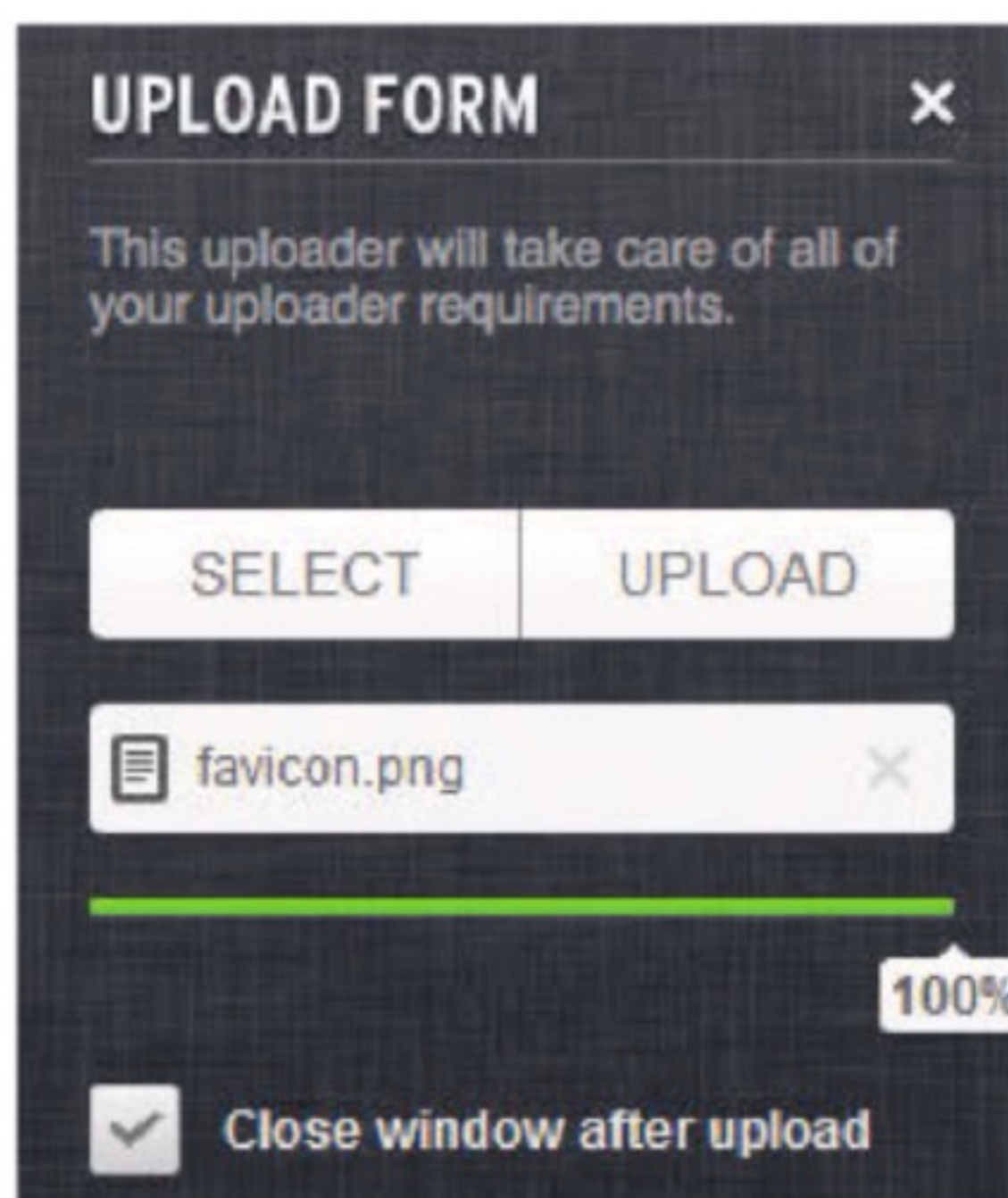

16 Check box checked

jQuery is used to switch between the checked and unchecked states when clicked by the user. As some visitors may not have JavaScript enabled, a fallback is used so that the functionality is maintained. The JavaScript dependent classes have 'js' added to them. If JavaScript is enabled when the page is loaded, 'js' is added to the body class, which will enable the custom checkbox to be displayed.

```
001 .js .upload-form span.checkbox {
002     width: 21px;
003     height: 21px;
004     cursor: pointer;
005     background: url(../img/checkbox.png) no-repeat 0 -21px;
006 }
007
008 .js .upload-form span.checked { background-position: 0 0; }
009
010 .upload-form span.checkbox label {
011     position: absolute;
012     top: 3px;
013     left: 31px;
014     font-family: sans-serif;
015     font-weight: bold;
016     font-size: 12px;
017     color: #e4e4e4;
018     white-space: nowrap;
019 }
020
```

17 Upload complete

That is essentially it for the uploader. As with any other important piece of functionality on your site, it can go from being neat to nightmare if it isn't working correctly, so make sure you test everything thoroughly. Then you can get on with encouraging visitor uploads – and who knows where it will end?



Code library

Checkbox script

The following script enables the custom checkbox. It is a handy technique that can be adapted to provide customisation for other unstyleable page elements

Here the 'js' class is added to the body. Without JavaScript this doesn't happen, so the 'js' class elements are left unused, which is how the fallback works.

By default the checked version is selected.

The script will listen for a click on the checkbox. If the box is currently checked, it will become unchecked and vice versa. The state of the hidden checkbox is also updated because this is what the uploader looks for to deliver the correct window behaviour.

```
001 <script>
002 // Check Box Styling
003 $(document).ready(function() {
004
005     var checkbox = $('<div>.upload-form span.checkbox</div>');
006
007     // Check if JavaScript is enabled
008     $('<div>body</div>').addClass('js');
009
010     // Make the checkbox checked on load
011     checkbox.addClass('checked').children('input').
attr('checked', true);
012
013     // Click function
014     checkbox.on('click', function() {
015
016         if ($(this).children('input').attr('checked')) {
017             $(this).children('input').attr('checked', false);
018             $(this).removeClass('checked');
019         }
020
021         else {
022             $(this).children('input').attr('checked', true);
023             $(this).addClass('checked');
024         }
025
026     });
027
028 });
029 </script>
030
```

You need to make one tiny edit to the PHP file to set the upload directory. Comment out the line containing "upload_tmp_dir" and uncomment the \$targetDir = 'uploads'; line.

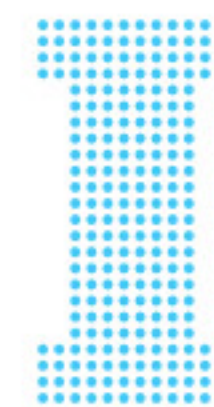
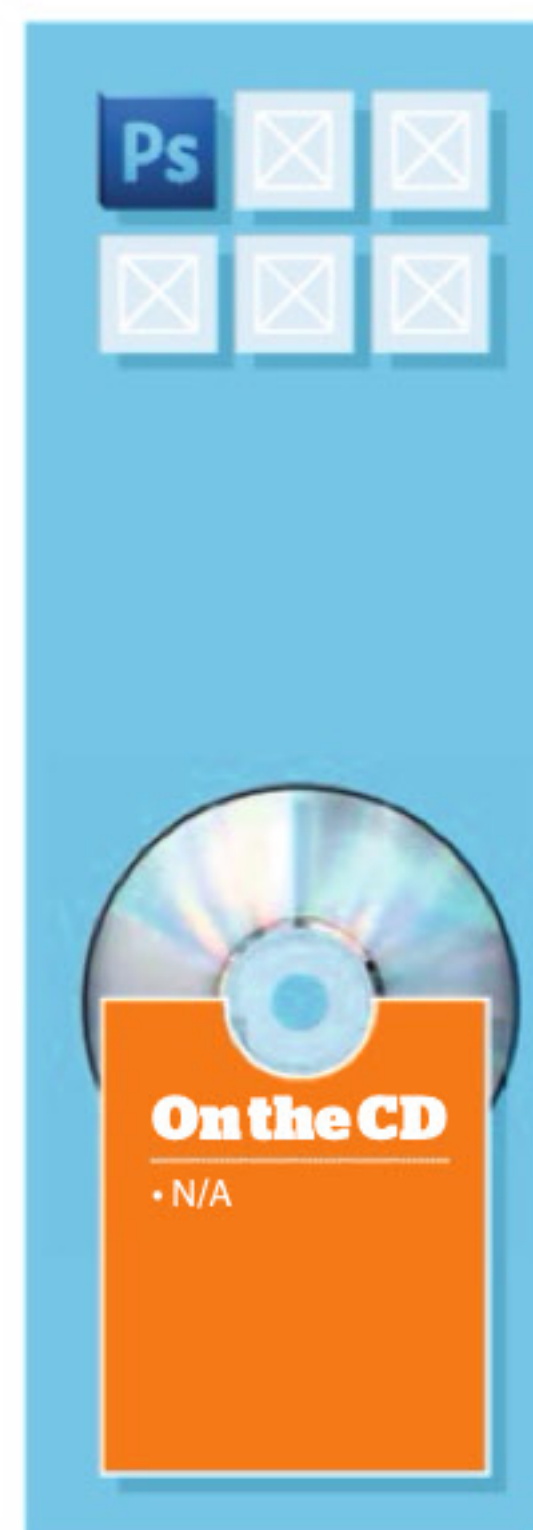
```
001 // Settings
002 // $targetDir = ini_get("upload_tmp_dir") . DIRECTORY_
SEPARATOR . "plupload";
003 $targetDir = 'uploads';
004
```

🌀 To provide the richest user experience, you'll need to think as broadly as you can about what visitors want from your site and how you can make their visit rewarding 🌀

Design layered backgrounds in Photoshop

Use Photoshop CS6 to make a stunning partial-submersion ocean scene and show what lies in the deep

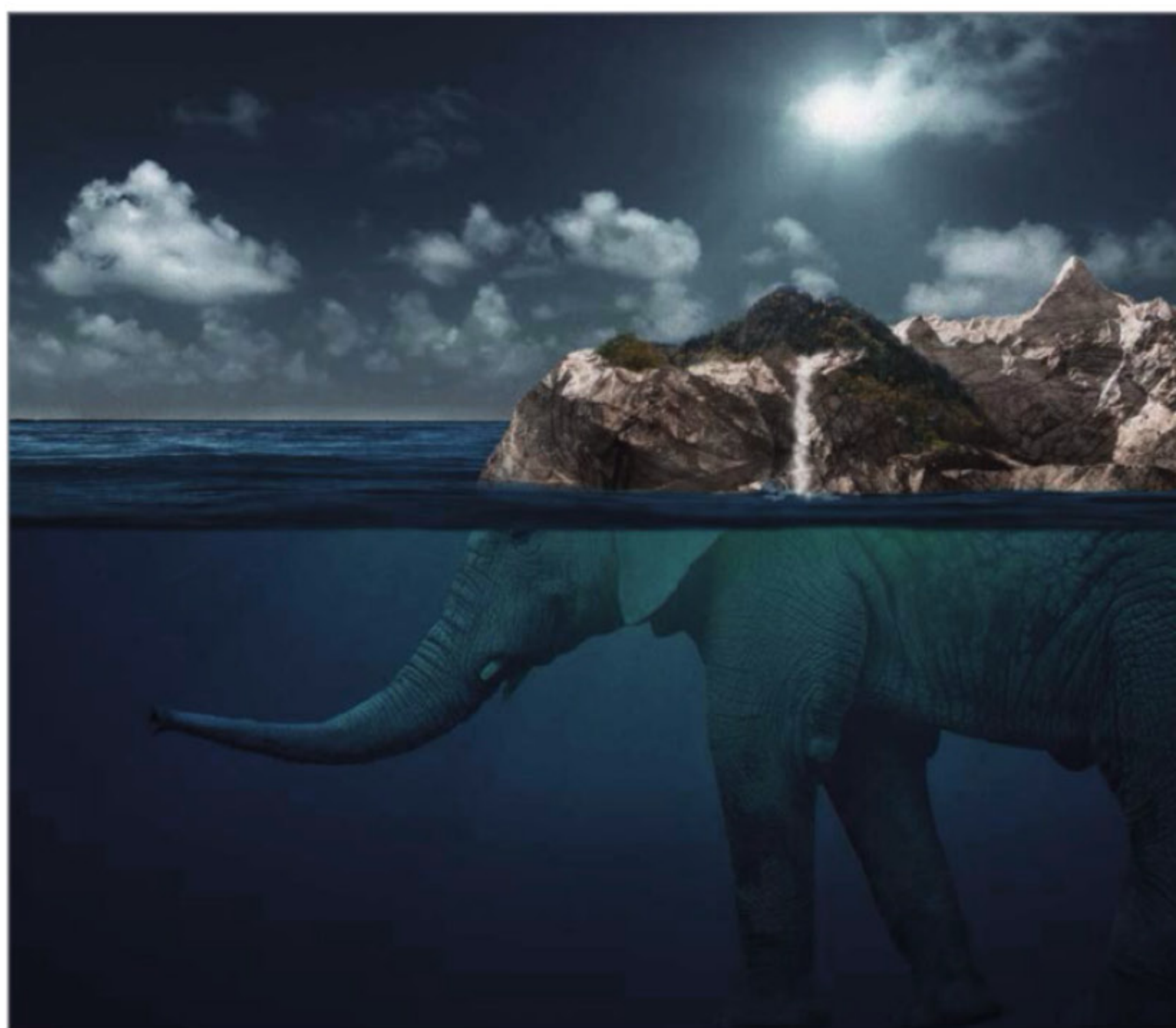
tools | tech | trends Photoshop **expert** Daniel Duke



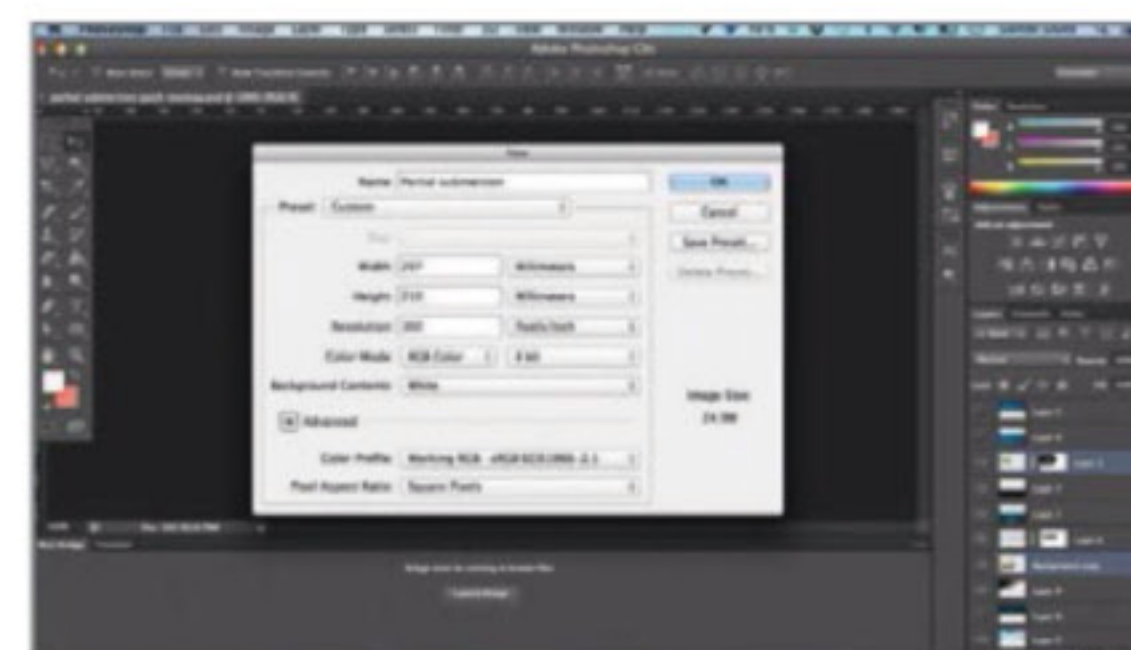
It's often said that we know more about the moon than we do about the depths of our own oceans. Wouldn't it be incredible if we could see what it is that lives beneath the waves? Over the next four pages, you'll learn the various

techniques required for creating a partial-submersion scene; a cross section of the ocean, revealing what might be hiding in the depths.

We'll be using some beautiful stock imagery, Photoshop's blending modes and some masking magic to create our submersion effect. In this tutorial we'll also touch on the blur tools and using colour to set the mood of your image. You'll need an image of an elephant or large animal, an image of the ocean, an underwater shot and a mountain range. We'll be producing a surreal scene but you can use these same techniques to create more realistic images.



Wouldn't it be incredible if we could see what lives beneath the waves? Here you'll learn the techniques required



01 Set up your document

To get going, open a landscape A4 (210mm x 297mm) canvas in Photoshop. Make sure your resolution is set to 300 dpi and Color Mode is set to RGB. This will be the base for producing your partial submersion scene. Place your elephant (or main element) into the canvas and resize to fit.

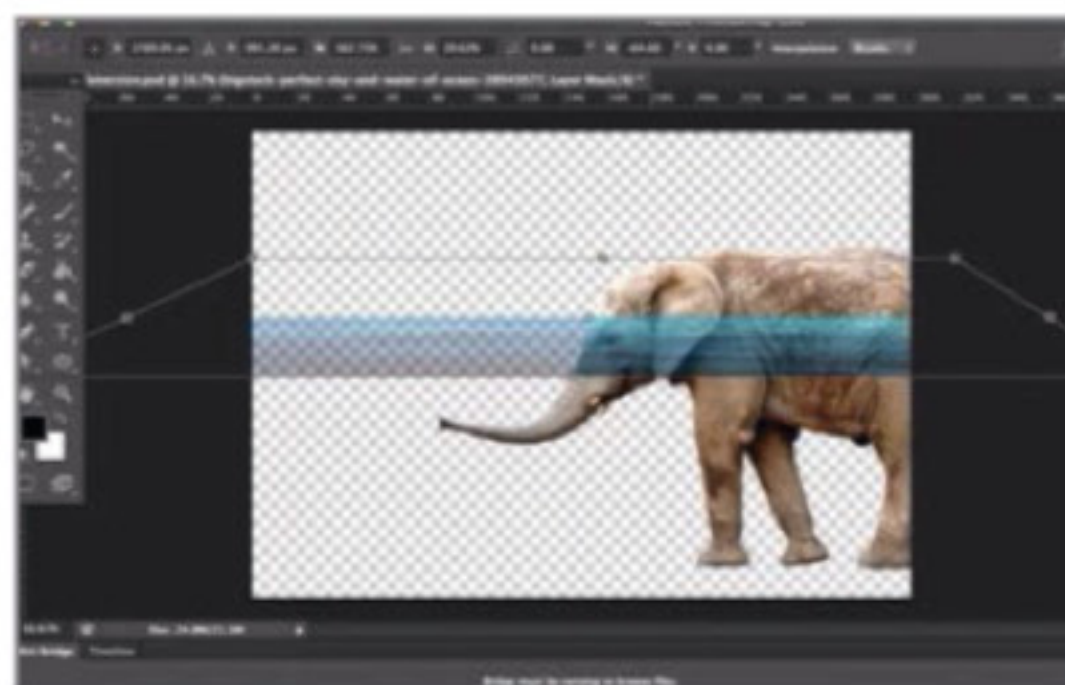
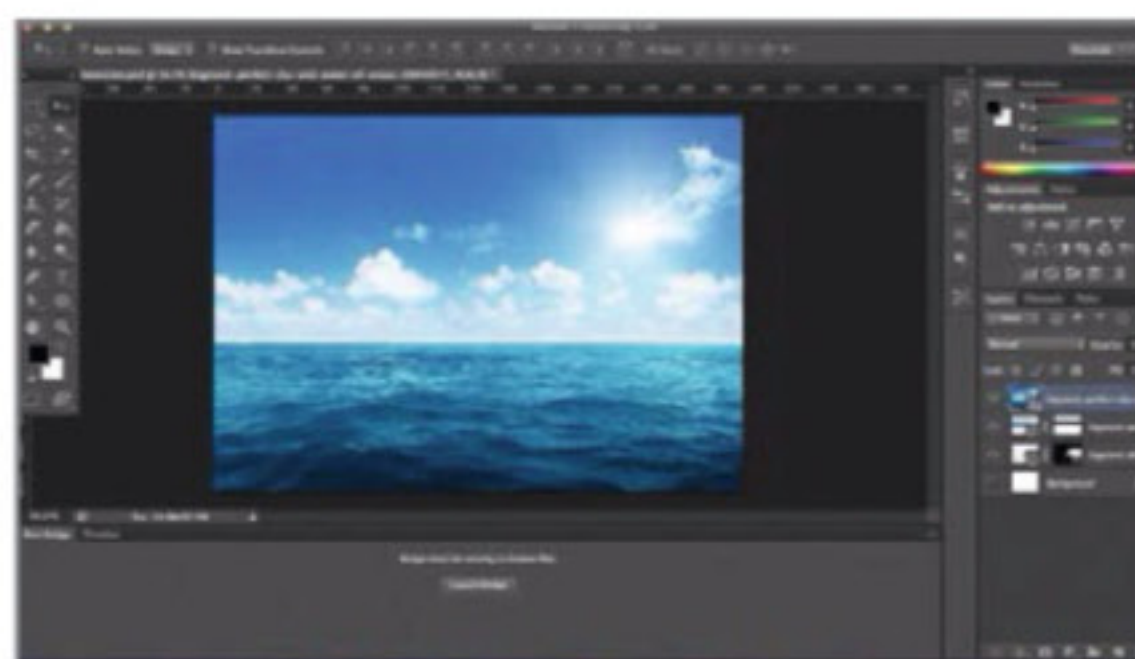


02 Cut it out

Use the Pen or Lasso tool to draw around the shape of your elephant. Once you have a selection, go to Layer>Layer Mask>Reveal Selection. This should mask out any white or background colour and leave you with just your elephant. Position the elephant at the right side of the canvas, facing left.

03 Add some ocean

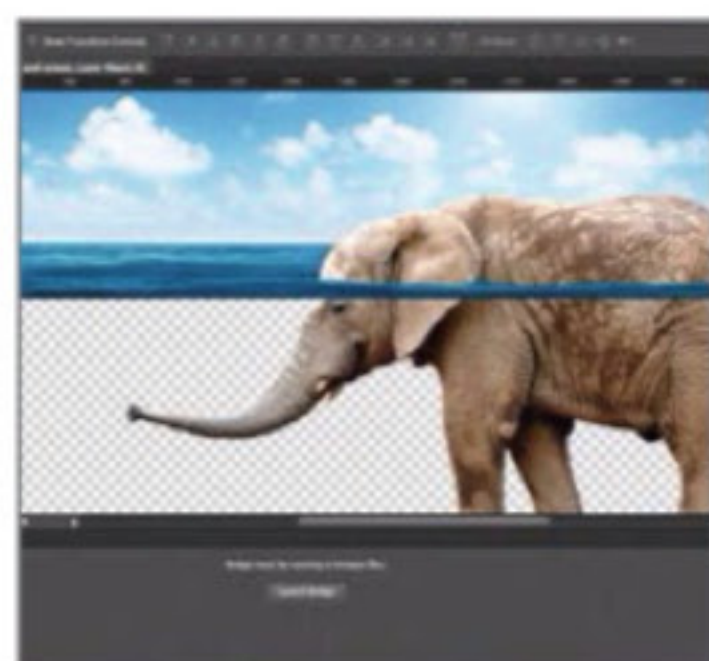
Next, place an image of the ocean onto your canvas. A relatively calm, ocean scene with a few waves should be perfect. Resize the image until it fills your whole canvas and covers the whole of your elephant. We're only going to need the bottom part of this picture to create the surface of our ocean.

**04 Crop the waves**

Lower the Opacity of your ocean picture and position it so that the horizon line sits just above the elephant's eye. Use the rectangle Marquee tool to select the sky section of the waves and use Layer Mask>Hide Selection to crop it out. Use the Distort tool and drag out the bottom corners of this layer.

**05 Sky's the limit**

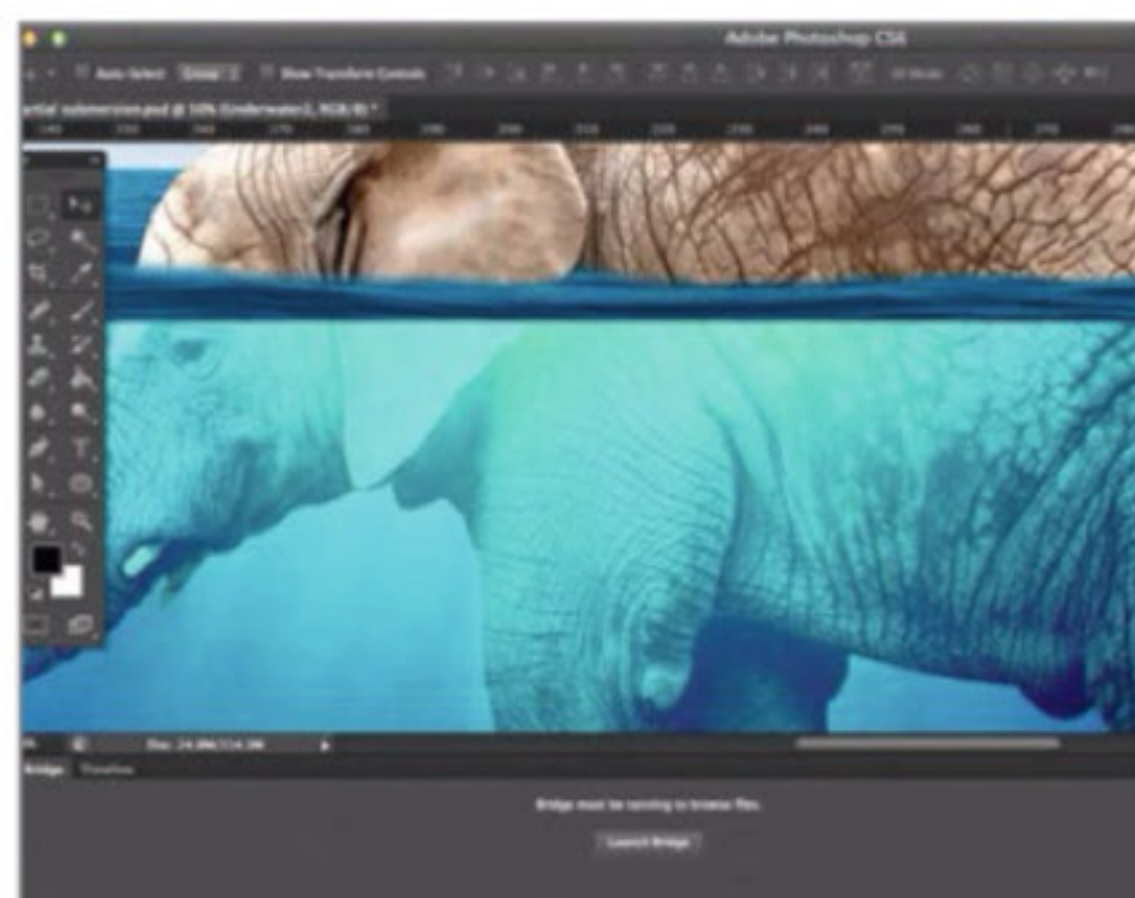
Increase the Opacity of the water to 100%. Then, paste in the same image as before. This time, using the Marquee tool, select the sky and crop the image. Reposition the sky so it's sitting on your newly created horizon. Now you should have some great-looking sky above your water layer. Merge the sky and ocean layers.

**06 Reveal elephant**

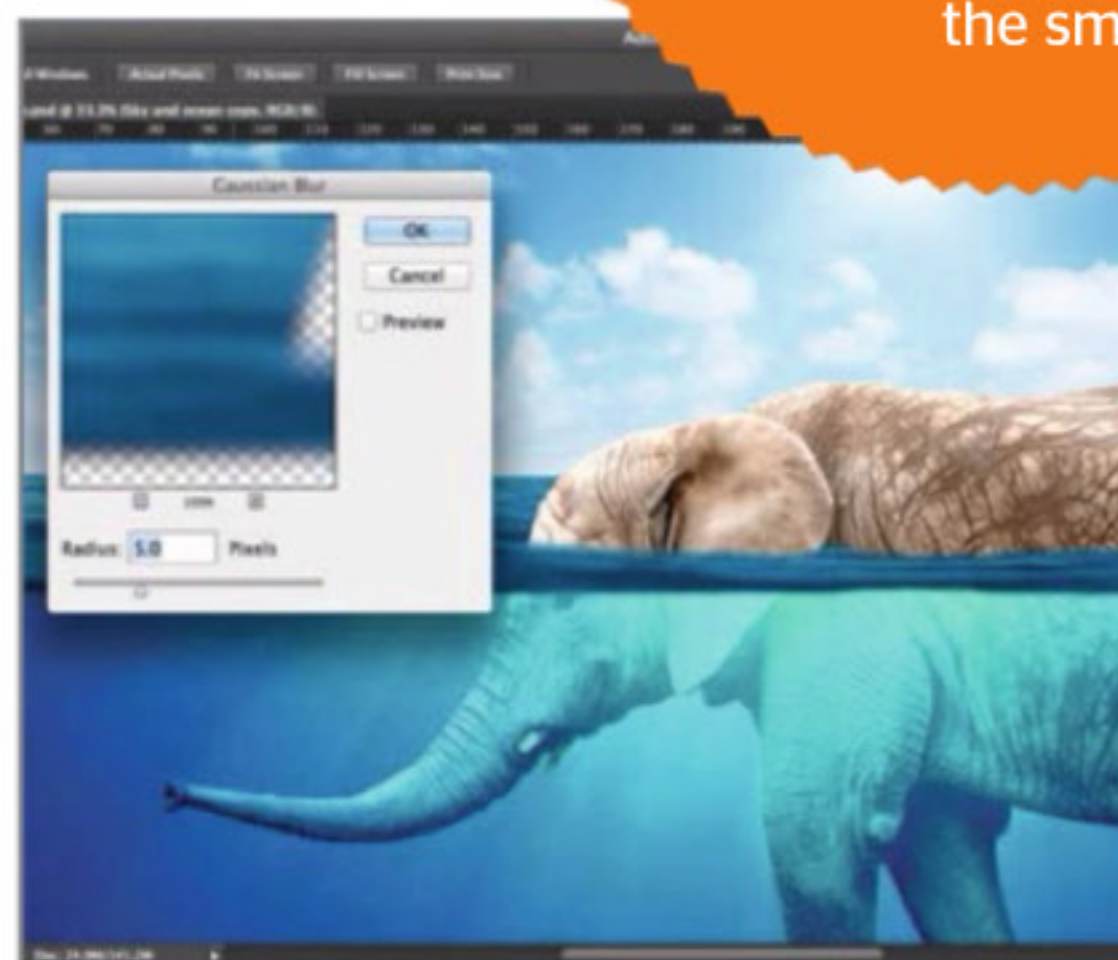
Create a clipping mask on your sky and ocean layer. Cmd/Ctrl+click on the elephant layer mask to select the elephant's outline. Click on the sky and ocean clipping mask and select a black brush. Use this to erase the sky and ocean so your elephant looks submerged.

07 Deep blue sea

Now, add the image you've chosen for the underwater section of your scene. Crop the image using a layer mask and position underneath the surface of the ocean. Use Hue and Saturation to match the colour more closely to the water's surface. Copy this layer and place it just below the elephant layer.

**08 Underwater effect**

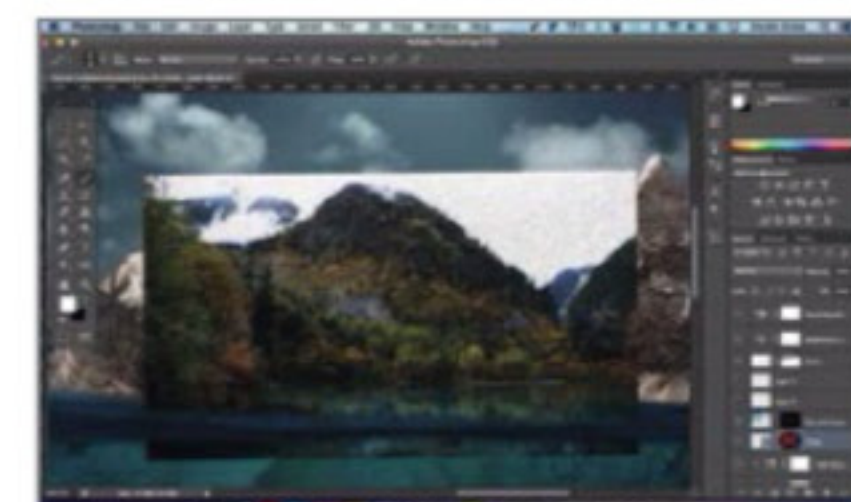
The water will now look a little intense. To fix this, Cmd/Ctrl+click on the elephant layer mask in the layers palette, inverse the selection and select the ocean layer that's on top. Using a soft brush at 50% Opacity, erase the ocean around the elephant before setting the blending mode to Hard Light. The elephant should now look more like it's underwater.

**09 Blurring the lines**

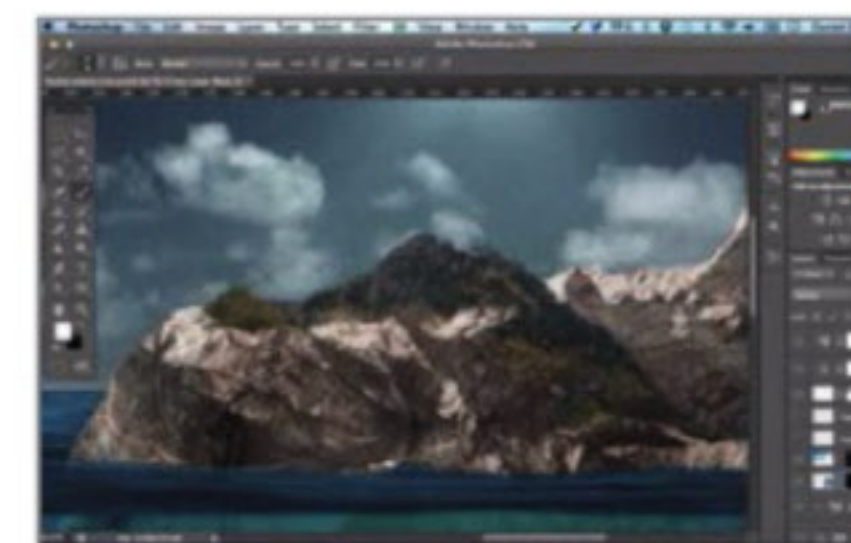
Next we want to add a bit of perspective to the image. Copy your sky and ocean layer and select a small section at the bottom. Crop this section and select Blur>Gaussian Blur and change the radius to 5px. Move it down 1 or 2px from its original position. The front of the water should now look out of focus.

Stock imagery

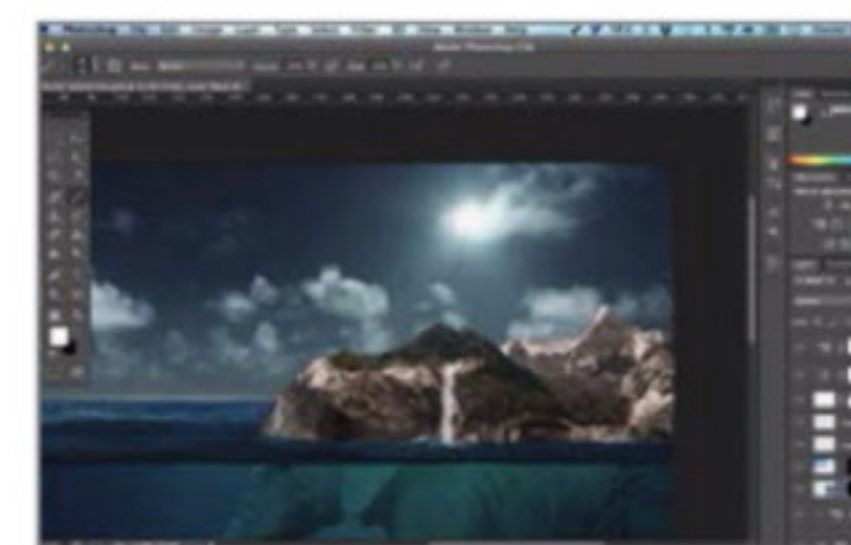
For projects such as this, image quality really matters. If you can afford it, stock sites are the best option. Flickr and Stock Xchng are great free options though. Just make sure you've read the smallprint!

Trees and waterfalls**01** Add the trees

Find a tree picture that suits the shape of your mountains. Place it into your document, lower the opacity and position it in place somewhere on your mountains.

**02** Mask the trees

Add a layer mask to the trees layer, using Layer>Layer Mask>Hide All. Then, with a 50% hardness brush, paint in trees along ridges and valleys of your mountains.

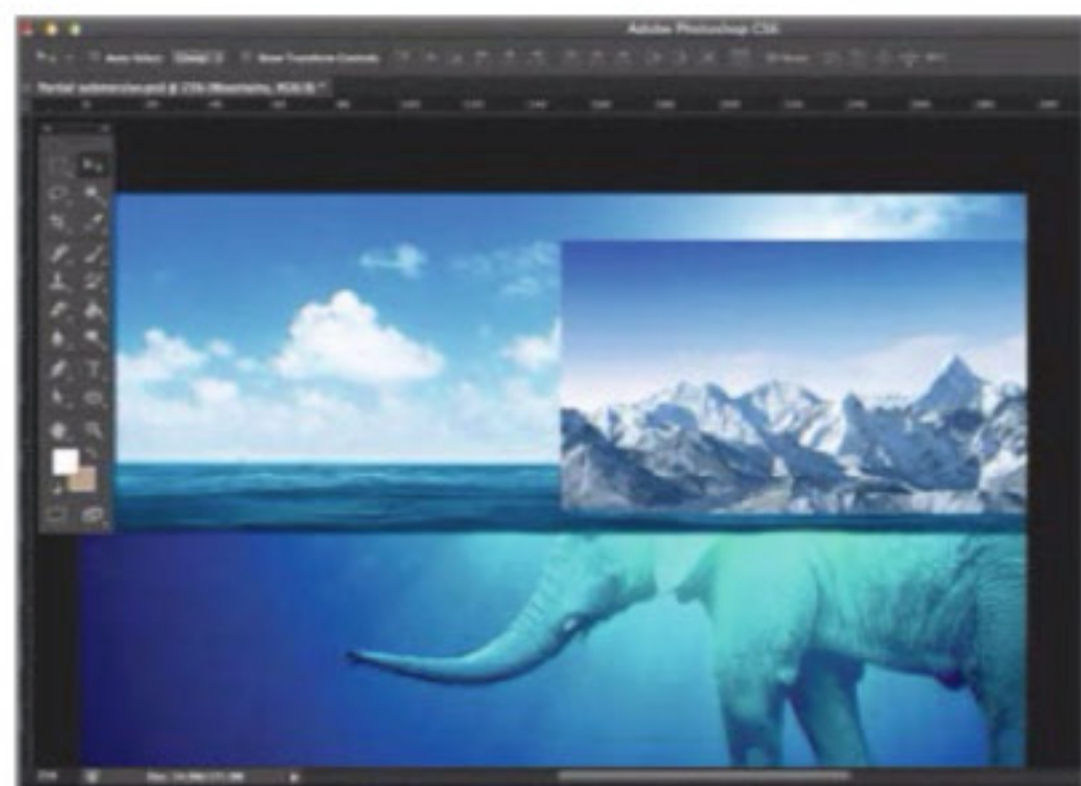
**03** Falling water

Create a scatter brush with 80% scatter and create a new layer. Using white, draw waterfalls rushing down the mountains. Adjust opacity for a more realistic look.

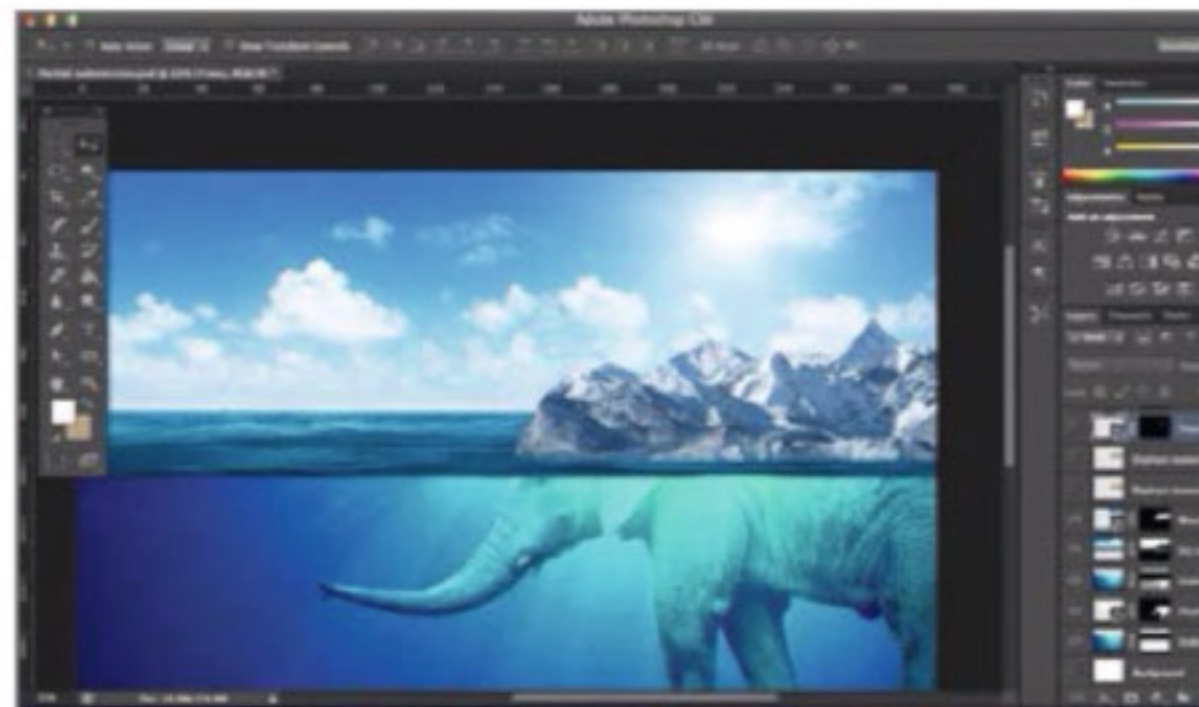
Design layered backgrounds in Photoshop

10 Getting rocky

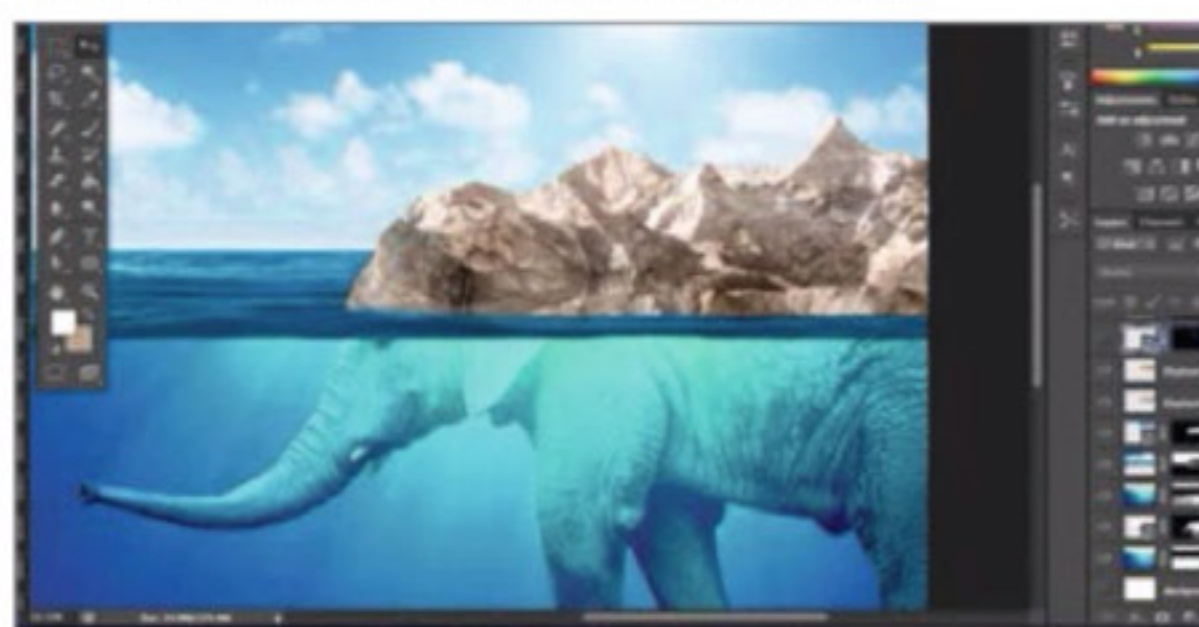
Now we're going to create the more surreal aspects of our partial-submersion scene. Place your mountain image on the canvas. Lower the opacity and line it up with your elephant. We're going to make it look like the elephant's back is made of mountains on an island rising out of the sea.

**11 Mask the mountains**

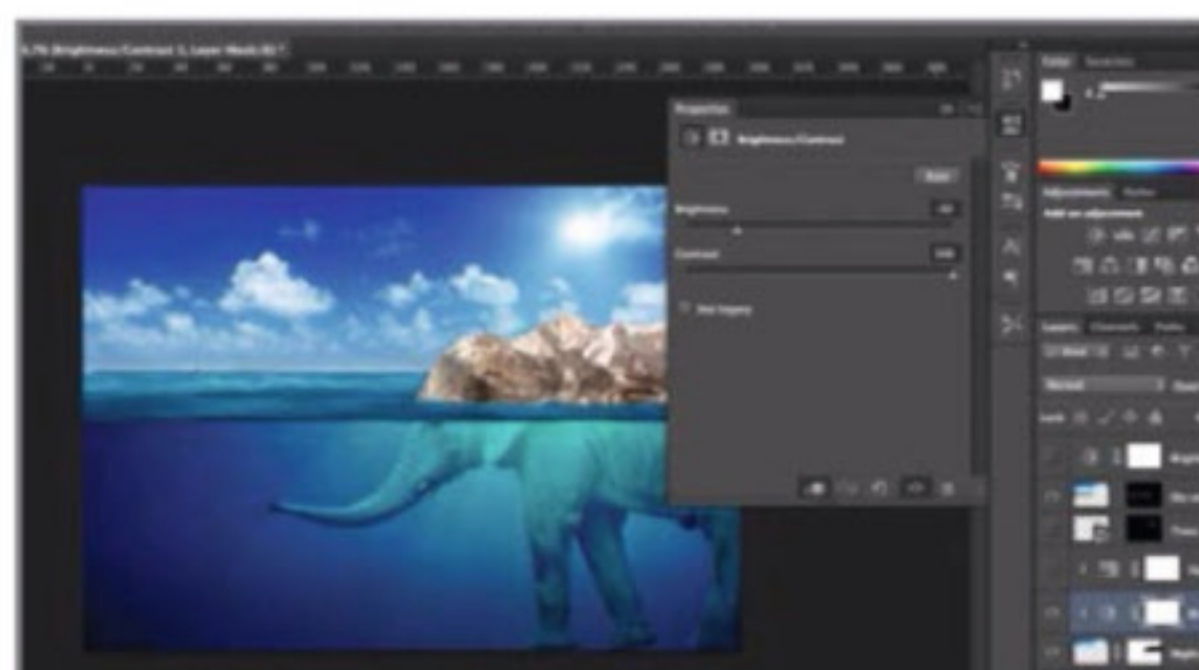
Using the Pen or Marquee tool, select just the mountains imaged. Create a layer mask on this layer and, using a black brush, erase everything except for the parts you want to keep. You may find that you need to sculpt the mountains so that they come down to meet the water where the elephant's head does.

**13 Merge mountain and elephant**

Set the blending mode of this texture layer to Soft Light. Copy this layer and set the blending mode of the new layer to Colour. Change the Opacity to 85%. The first texture should give the mountains the elephant skin texture and the second one should give you a more elephant-like colour, so the two blend together seamlessly.

**15 Adjustment layers**

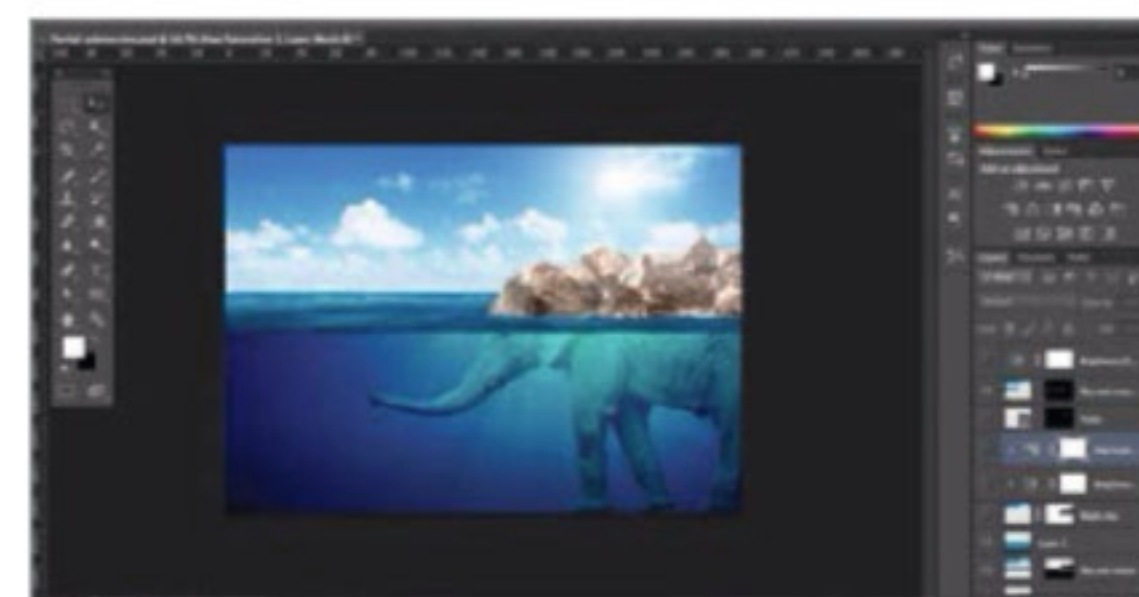
Create a copy of your sky in a new layer, using the Marquee tool. In the Adjustments panel, click on Brightness and Contrast to add an adjustment layer. Make sure you click on the Clip to Layer at the bottom of the Options panel. Set Contrast to 100 and Brightness to -92. This will give the image a slightly darker sky.

**16 More adjustment layers**

Create a Hue and Saturation adjustment layer on top of the same sky layer we're working on. Make sure to click Clip to Layer, then set the Saturation to -50 and play with the Hue to make it a little greener. You can play with these options to get the effect you want.

**12 Elephant texture**

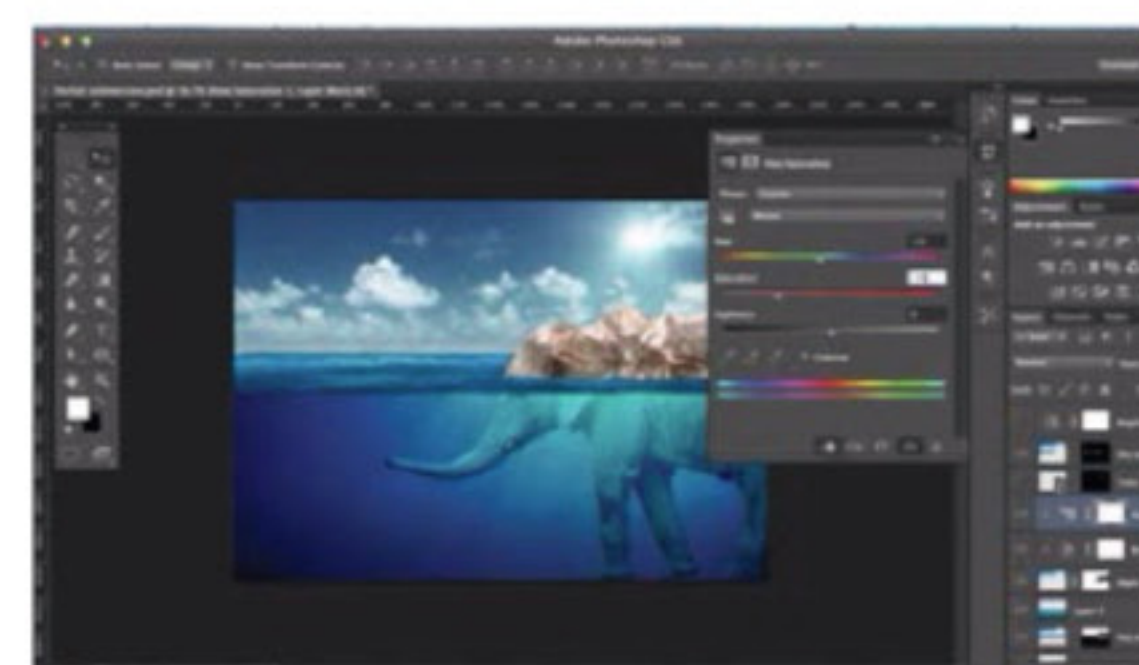
Create a copy of your elephant layer, then Cmd/Ctrl+click on the mountains layer mask to make a selection. Crop the elephant to this selection so you now have an elephant skin texture in the shape of the mountain range. Use the clone tool to fill in any gaps between the elephant and the top of the mountain.

**14 Add some atmosphere**

Now that our partial submersion image is coming together, we want to make it a little more moody. The bright sunny day doesn't quite suit the surreal feel that we're going for with this image, so we need to create a night-time feel using adjustment layers.

Use these skills for the web

The techniques here could come in handy when building a quirky parallax website with a scrolling land or seascape in the background. See www.pojeta.cz for a great example.

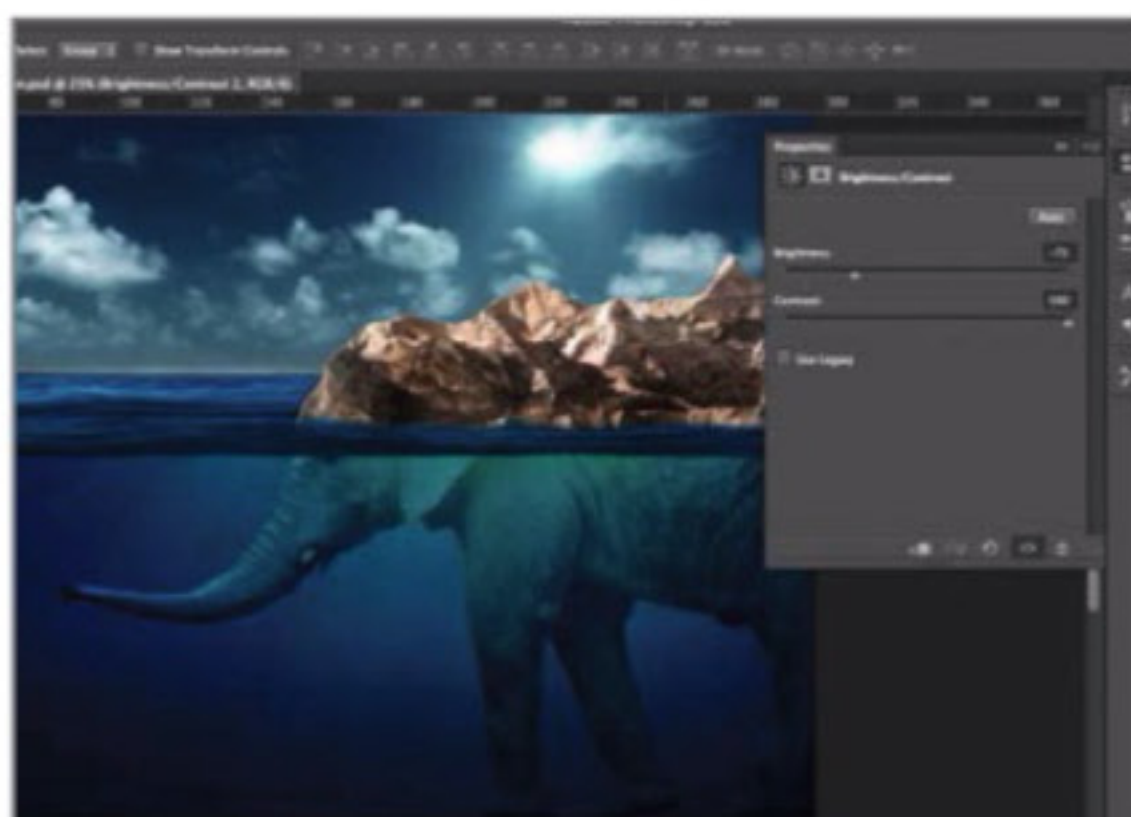
**Use adjustment layers in Photoshop CS6**

Photoshop's adjustment layers are a fantastic tool for making reversible changes to elements such as brightness, contrast and saturation. Although users can change all of these properties through the Image option in the toolbar, this only allows the user to make permanent changes where the image information is discarded. Using adjustment layers allows users to go back and edit properties again and again, to get the effect that suits the final work.

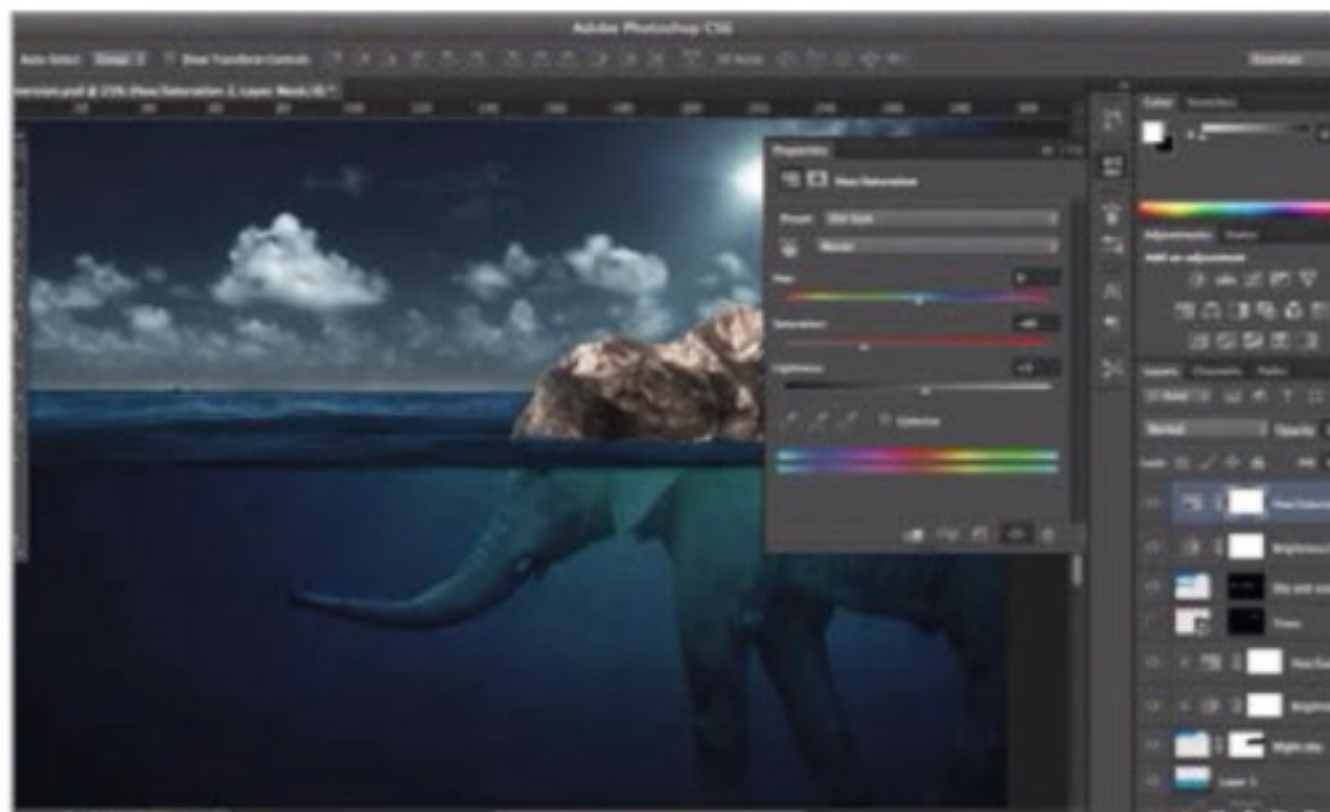
It is also possible to turn them on and off like any normal layer to see what has been changed and which layers are affecting each other. Adjustment layers are a must for any kind of photo manipulation work, in case users go overboard or need to back and fix something that went wrong. They can also let users achieve some pretty cool effects by editing multiple layers all at once.

17 The murky depths

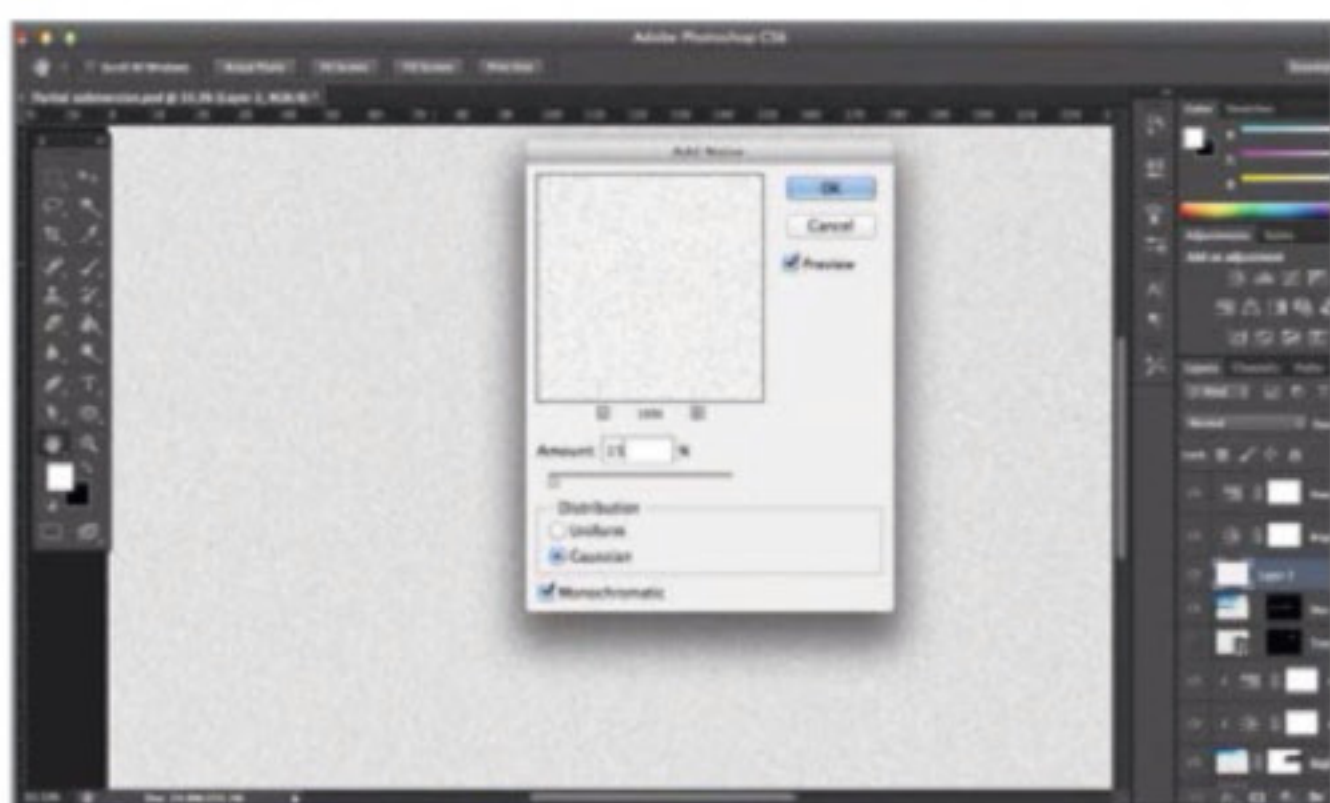
We still want to make the water feel a little darker to give the impression that the elephant's swimming through the depths of the ocean. To do this, use the Marquee tool to select the water. Choose a deep, sea green and another similar but darker tone and create a gradient. Set the blending mode to Multiply and the Opacity to 50%.

**19 Hue and Saturation**

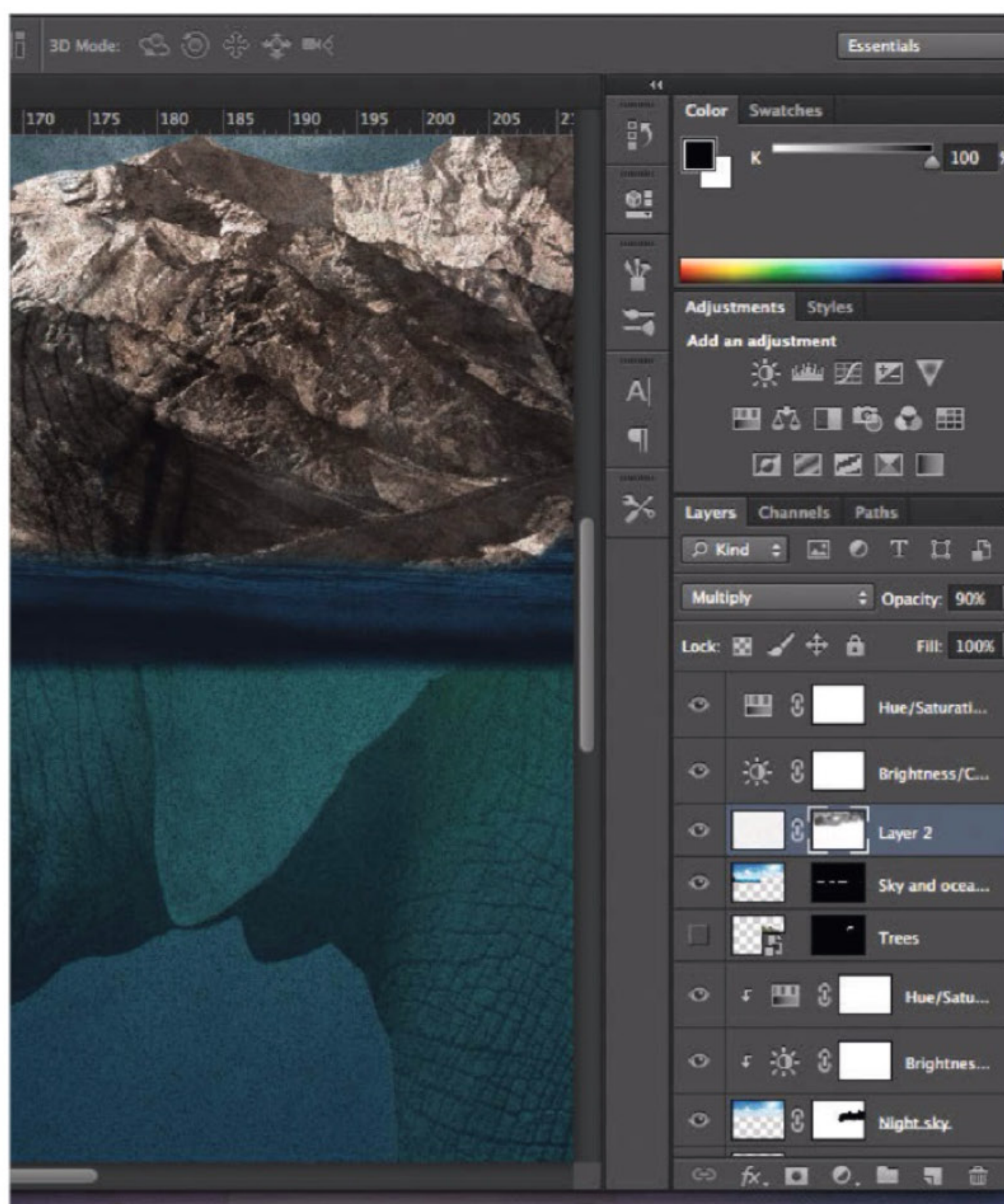
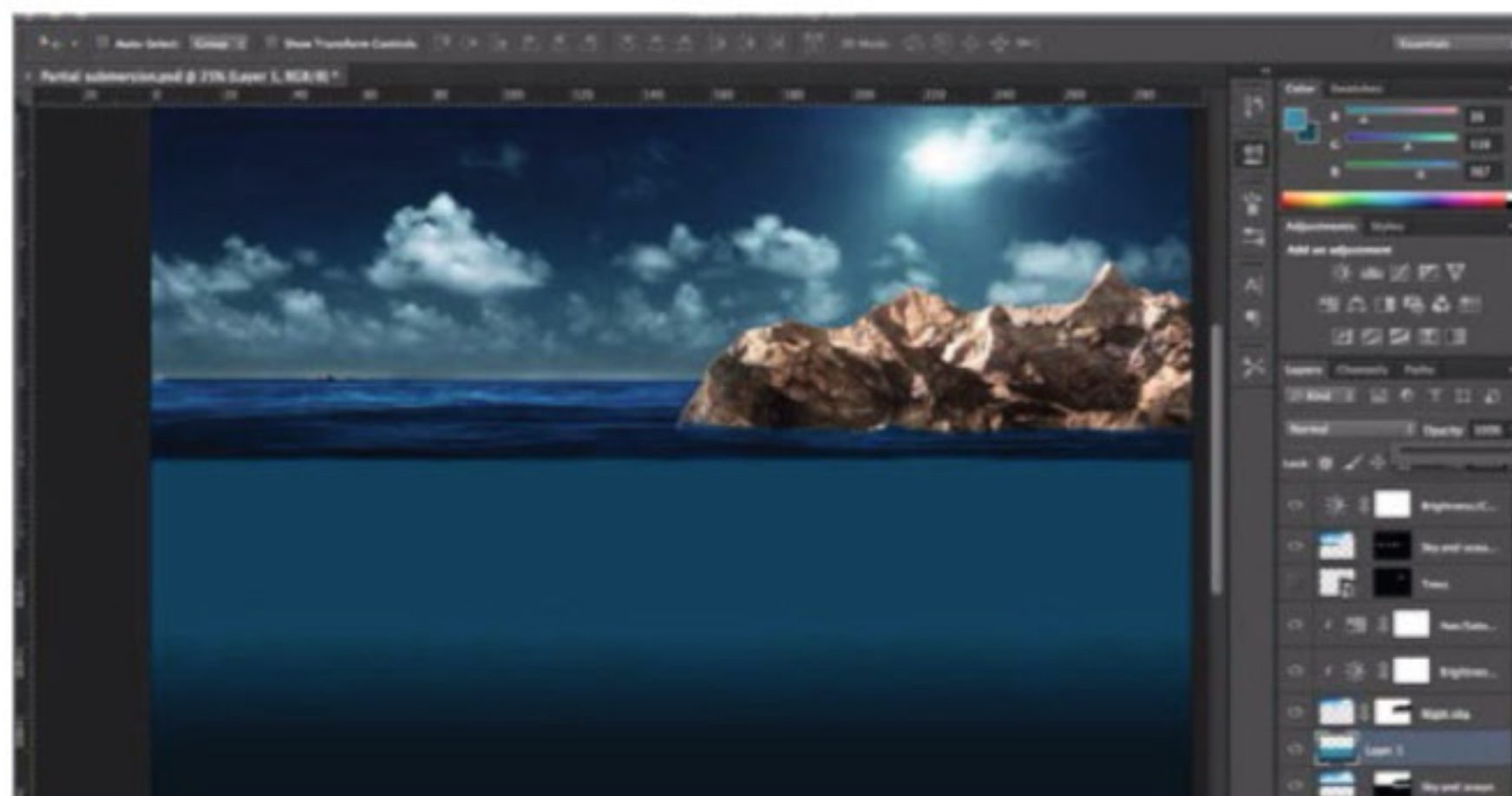
Our partial-submersion image is nearly complete. Now that it's nice and dark, we need to tone down some of those very saturated colours. Add another adjustment layer, this time for Hue and Saturation. Make sure it's affecting all layers and set the Preset option to Old Style. This will tone down the mountains and sea for a more subtle look.

**20 Add noise**

To finish off our partial-submersion image, we want to add some nice noise. This will make the image pop and add to the surreal feel. Create a new layer, under your top two adjustment layers, and fill it with white. Go to Filter>Noise>Add Noise. Set the amount to 15% and choose Gaussian and Monochromatic.

**18 Make it dark**

The image is definitely looking darker but it's not quite moody enough yet. Add another Brightness and Contrast adjustment layer, this time making sure it affects all the layers below it. Set the Brightness at -75 and Contrast to 100. As you'll see, this will darken the tone of the whole image.

**21 Finishing touches**

Select your noise layer and change the blending mode to Multiply. Some areas of the image might look a little too noisy. If this is the case, go to Layer>Layer Mask>Reveal All and with a soft, 50% Opacity, black brush, go over any areas that need toning down.

Adjustment layers are a must for any kind of photo manipulation work

web workshop

Create a horizontal scrolling image gallery

inspiration www.jkdesign.com



Established in 1985, with offices in New York and New Jersey, full-service agency JK Design are not new kids on the block.

They do pretty much everything in house and for some of the world's best known brands. It should come as no surprise that they know how to build an impressive website.

There's plenty to discover when exploring JK Design's site and the short videos that play for each of the team members are especially nicely done.

There is also a host of subtle animated elements like the logo in the header and of course the slow scrolling image gallery that appears when the user scrolls down.

StackOverflow it!

The solution used in this workshop is based on the answer provided by Gaby aka G. Petrioli at bit.ly/1fGjdjO. Stack Overflow is part of the Stack Exchange group network of community-driven Q&A sites - other sites that may be of interest include WordPress Answers and Webmasters.

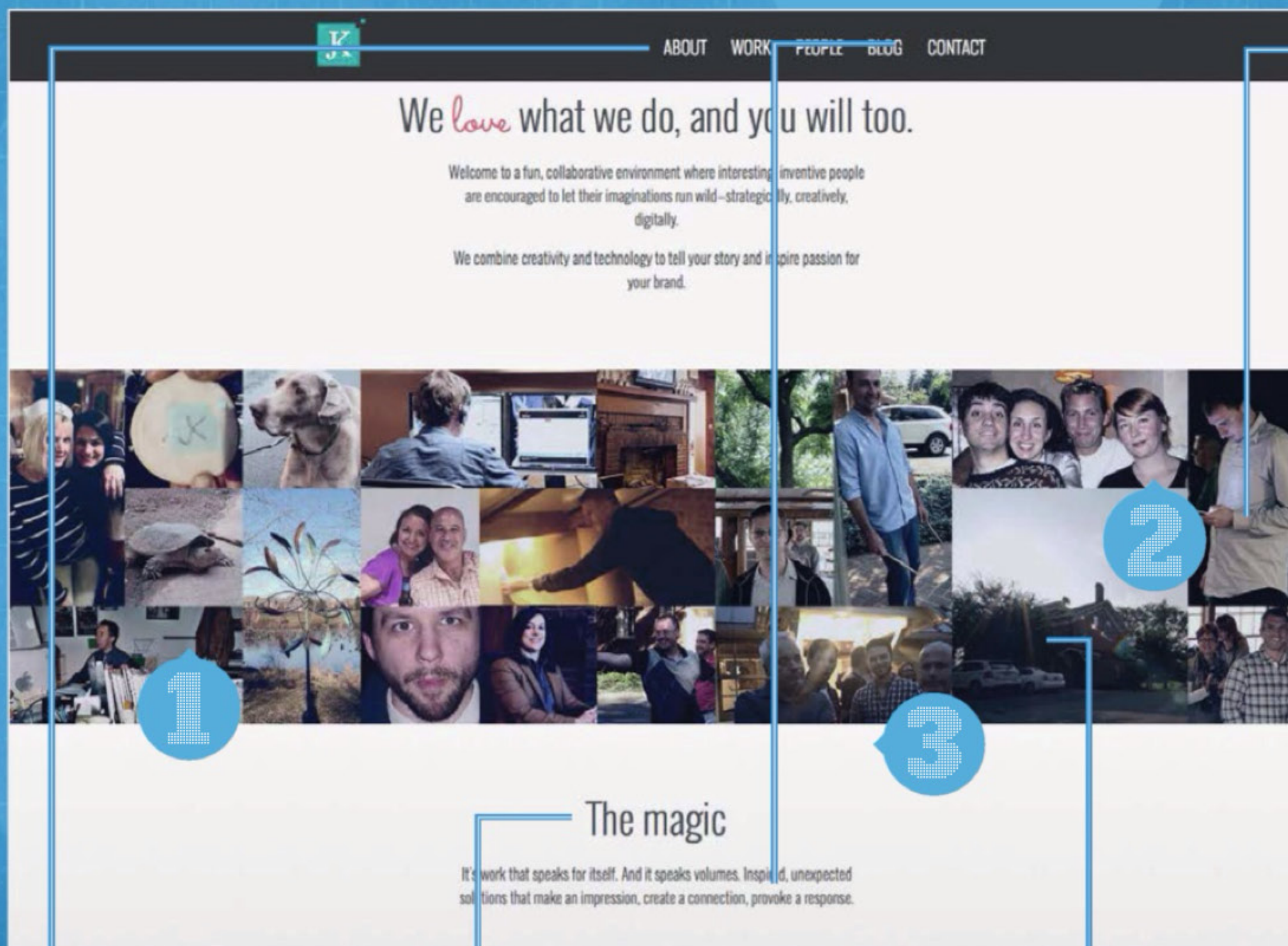
1

INSPIRATION

Communicating a family feel

This is a lovely feature that is simple and undemanding of the user, who can use their mouse to change scroll direction but isn't expected to do anything more with it than that. JK Design give the impression of being like a big family, with its montage of real photos - and not a hint of a stock shot in sight - their scroller plays a big part in communicating that family feel.

jQuery is already being put to good use for other bits of animation as well, so the scroller can be delivered with just a few extra lines of code that make use of jQuery methods, which we'll show you in the technique section.



Accessible navigation

A sticky header ensures the navigation is always accessible. Never leave your site visitors not knowing where to click next or it's likely to be the Google search box.

Keeping the magic alive

'The magic' describes their client work but could be just as well applied to their website - it's work that speaks for itself. And it speaks volumes: Inspired, unexpected solutions that make an impression, create a connection, provoke a response.

On-trend features

The site makes use of many current trend features, such as the single-page style homepage so the visitor can read the whole JK Design story, and then get in touch, simply by scrolling down.



<comment>
What our
experts think
of the site

This team knocks it out of the park

The careers page title has got things about right. As a creative agency it can be really difficult to strike the right balance between corporate and quirky but JK Design have achieved just that. As a client, you would be more than pleased to have this team batting on your side.

Jayson Winters

Lead designer at bracedesign.co.uk

2

TECHNIQUE

A simple scrolling gallery with jQuery

01 Create the HTML

A link is established to a version of the jQuery library. Remember to keep your overheads down by using a minified version that is 91Kb vs 233Kb for the unminified version. Next comes the scroller code and stylesheet. The scroller, actually a left scrolling and right scrolling version, appears as two <div>s with their relative direction classes within a containing <div>.

02 Set the style

The scroller container has the class .backdrop and should be set to the scroller height and 100% width if that is the look you are going for. The image is identified using the background property. The width of the .direction class is set to 50%, so an equal amount of space is allocated to the left and right part of the page as these areas control the speed and direction of scroll.

```
001 .backdrop{
002   height:480px;
003   width:100%;
004   background: url('montage.jpg');
005 }
006 .direction{
007   position:absolute;
008   width:50%;
009   height:100%;
010 }
011 .left{left:0;top:0;}
012 .right{right:0;top:0;}
013
```

03 Create the JavaScript

The variables are set. The scroller works by changing the x coordinate of the image. The rate variable is reset later according to the mouse position on the page but must be non-zero from the outset for the scroller to scroll automatically by itself. You can

finetune the rate and maxspeed to vary the difference between the slowest and fastest scroll speeds.

```
001 var x=0,
002 rate=0.2,
003 maxspeed=5;
004 var backdrop = $('<div>.backdrop');

```

04 Set the rate

If the mouse is in the left area of the page, a positive rate is calculated that will cause the x variable to be added to and the image moves to the right. Conversely, a negative value is assigned to rate, the x value will be subtracted from and the image moves left.

```
001 $('<div>.direction', backdrop).
mousemove(function(e){
002     var $this = $(this);
003     var left = $this.is('<div>.left');
004     if (left){
005         var w = $this.width();
006         rate = (w - e.pageX -
$(this).offset().left + 1)/w;
007     }
008     else{
009         var w = $this.width();
010         rate = -(e.pageX -
$(this).offset().left + 1)/w;
011     }
012 });

```

05 Keep setting

Using setInterval, the image position is set every ten milliseconds according to the value of x. This is passed to the DOM along with the non-changing y co-ordinate to update the background-position of the <div> containing the image (the one that has the .backdrop class assigned to it).

3

TECHNIQUE

Create your montage

In InDesign create a 5600px x 480px document. Set the top and bottom margins to 160px, the left and right margins to 0 and add vertical guides 160px across the document. This will avoid unpleasant inconsistencies later.

01 Use image frames

This montage is composed of small squares based on a multiple of 160px. Using image frames, either copy the arrangement of the solution or create your own layout. You can just paste images into each frame.



02 Go your own way

For something more adventurous make sure you understand how the ends of the image will look next to each other. Much of the attractiveness of the technique comes from the not being able to see the join.



03 Suitable content

If you are building a corporate site, ensure the content of the montage is suitable. Avoid copyrighted images; Flickr is a great resource for Creative Commons images. When done, export the image as a JPEG.



Avoid stock images to create a totally original and authentic end result like JK Design's montage. People will often pay more attention to images when they are obviously specific to a website



Discover the web browser development tools that will help you to prototype, test and optimise your website to perfection

Shortly after Mozilla introduced Firefox, a powerful in-browser diagnostics and monitoring tool was released as an extension.

This marked the beginning of a shift in how web designers and developers approach the problem of prototyping, optimising and designing in the browser.

More recently, the wide-spread adoption of a responsive design workflow has meant that the old-fashioned concept of a fixed-width window has been replaced with an understanding that the only way to fully test a website is in the browser itself, pushing and pulling the window into different proportions to check and adapt the way content reflows.

Designing and developing within the browser required a shift in the way we approach problems. Rather than designing pages, we're now designing complete systems that automatically respond to different conditions, generating more of a style guide than a single page layout.

While the shift was led by Firebug, which we'll look at shortly, this is no longer the only option available to designers and developers. In fact, all the major browsers now have either built-in developer tools, or a rich set of extensions available to help users test, optimise and even develop directly within the browser. Even Internet Explorer is a real option, as it has a useful set

of debugging and inspection tools built right into the browser, which may come as quite a surprise to some.

Over the next few pages we take a look at each of the main browsers, and reveal the must-use development tools that can help you work smarter and faster without ever having to leave the browser environment. No matter what your own browser preference is, you'll find a useful set of tools that can help you design and develop directly in the browser, making the process of testing and optimising smoother and less strenuous.

While these tools won't do the work for you, they provide such an integral part of the process that you'll soon consider them an essential part of your toolkit.



START DEVELOPING IN FIREFOX WITH FIREBUG

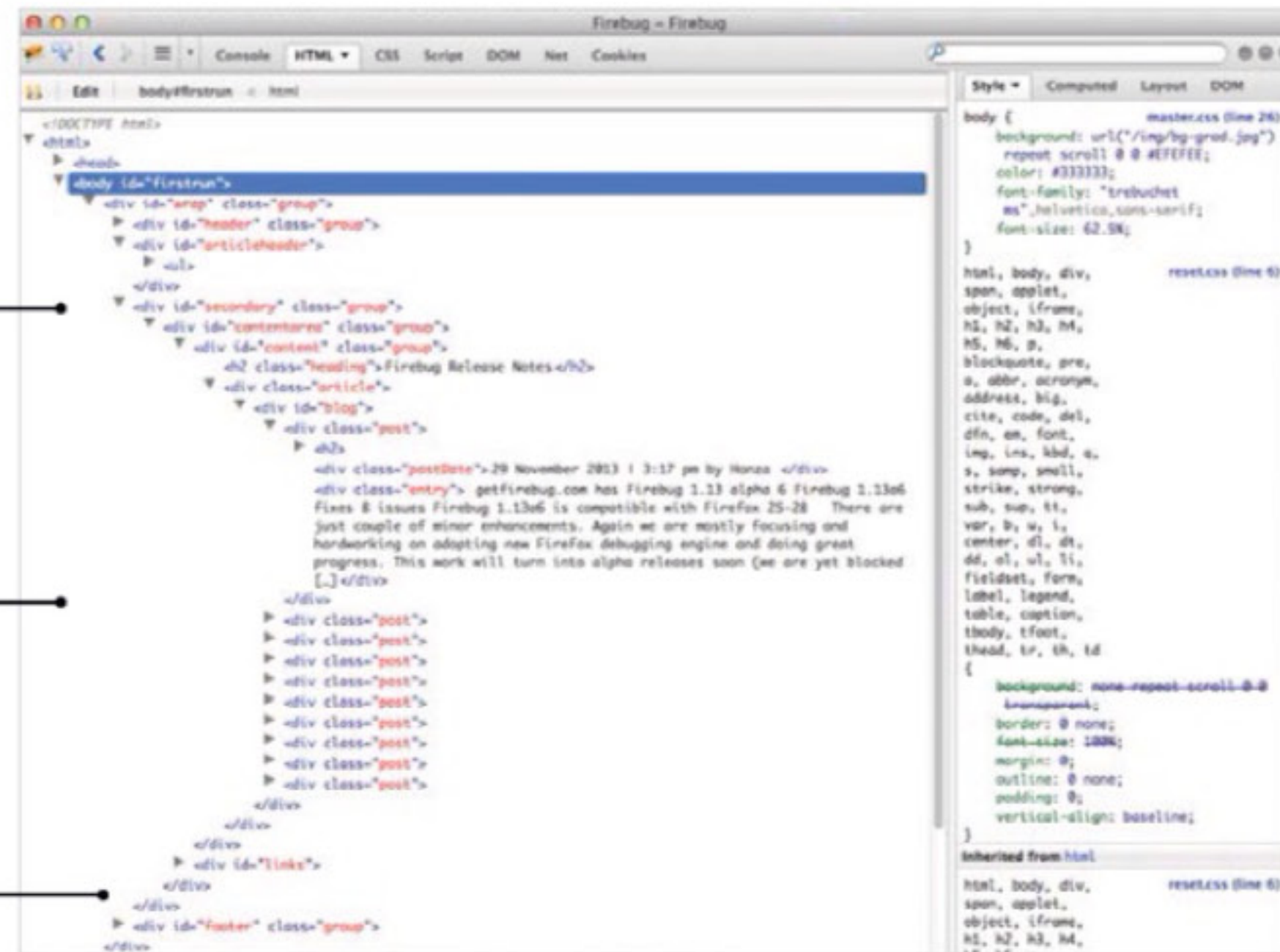
The browser extension that started it all, Firebug has a lot to offer in today's developer-rich toolset

■ getfirebug.com

The Firebug extension allows you to inspect HTML elements directly within the DOM, including procedurally generated nodes.

A simple debugging tool is built in, allowing you to create JavaScript breakpoints and check what's going on as your code executes.

The DOM tab allows you to quickly and easily reposition and restyle elements within the DOM, without ever having to leave your browser.



Firebug is a must-have extension for Firefox if you're a designer or developer. It allows you to quickly target any element within a page and view the underlying markup, CSS properties, layout and Document Object Model (DOM) instantly – even where some of this is generated procedurally.

On top of that, it also allows you to directly edit any of these elements and instantly preview the resulting change directly inside Firefox, making it a superb way to quickly prototype changes to an existing design within your browser.

Once you move beyond the basic features, you can also use Firebug to create breakpoints in your JavaScript code, analyse network access and loading times, and query collections within.

Of course, you're not purely limited to your own pages and apps. Firebug doesn't save changes to the server, instead editing your locally downloaded copy of a page and its assets,

so you can also use it to inspect and learn from other website designs.

All this makes Firebug (and the other similar tools you'll see) an essential tool both for new designers and developers, and seasoned pros alike.

Quite simply, once you start developing using Firebug, you'll never want to go back to the old-fashioned approach of edit, refresh, test!

CONDITIONAL BREAKPOINTS

If you'd like to stop your JavaScript running when a certain condition is met, right click on the line number of your script within Firebug's Script panel, and type in a condition such as `x=10`. The script will now pause when and if that condition is met.

GET TO GRIPS WITH FIREBUG

Firebug may be the grandfather of modern in-browser development tools, but it certainly still packs a punch



01 Inspect the DOM

Open any website you'd like to inspect using Firefox. Make sure you have FireBug installed, and right-click on any element within the page. From the resulting pop-up menu, select the Inspect Element with Firebug option.

02 Edit HTML

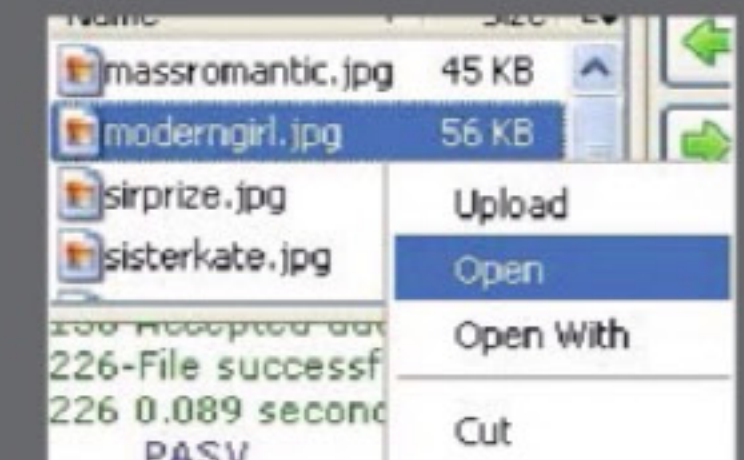
The main window displays the HTML markup, while the right column allows you to tweak styles. When you inspect an element, you'll get the HTML tab in the main window so you can edit the HTML. Double-click it to edit.



03 Edit the CSS

Once you've found a style to add to, double-click beneath one of the existing rules and type your new rule into Firebug. Rules will take effect immediately, so you can quickly prototype different styles interactively in the browser!

TOP TOOLS

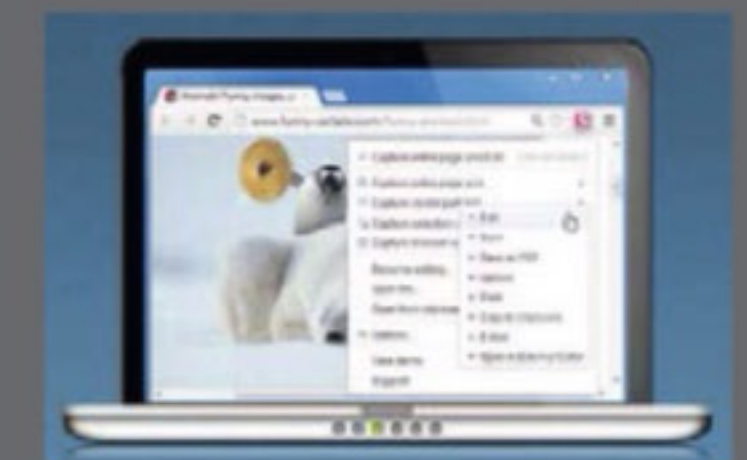


■ FireFTP

mzl.la/1cArb1a

FireFTP turns your installation of Firefox into a fully functional File Transfer Protocol (FTP) client for uploading and downloading files to and from remote servers. It also includes advanced functionality such as directory analysis and comparison, automatic syncing of files and folders, support for secure FTP (sFTP), SSL, remote editing and much more.

Perhaps most importantly, FireFTP allows you to create and manage multiple sites, so it's easy to work across different servers without having to manually remember and rekey your login credentials each time you access.



■ FireShot

mzl.la/1hM6cWU

FireShot is an extension that performs one task well. It's a screen capture tool that records the visible output of a webpage as a screenshot from Firefox, but rather than being limited to the visible area, FireShot grabs the entire rendered page.

The extension will save in PDF, PNG, JPEG, GIF or even BMP format, and captures can be annotated within FireShot, making it a great choice for highlighting features in a page, developing user manuals, or helping to identify areas in a page that need attention. Great if you're working as part of a team.



EXPERIMENT WITH GOOGLE CHROME

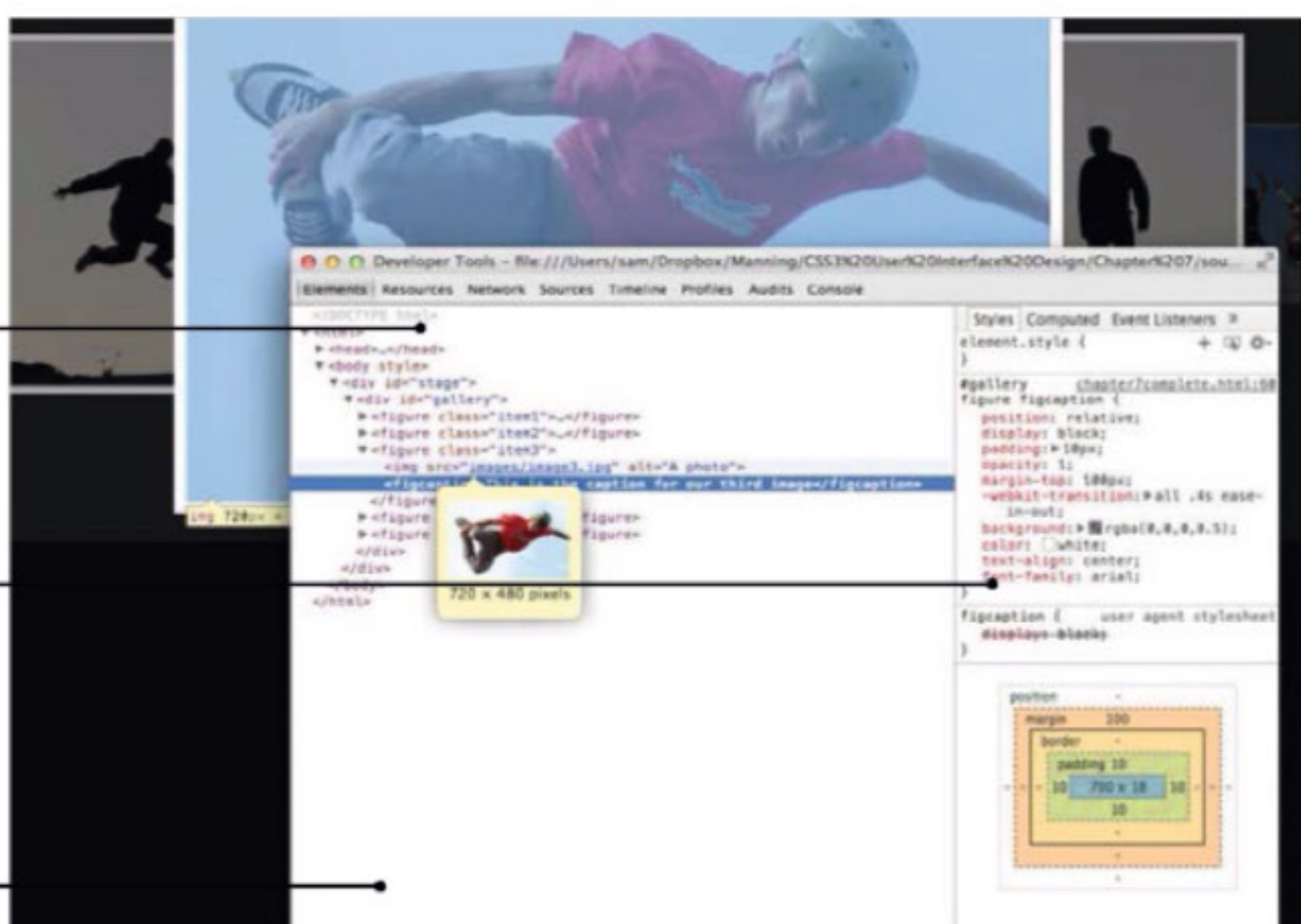
Chrome ships with an extensive set of developer tools as part of the package for users to get started with

■ bit.ly/IENotW

Like Firebug, Chrome's developer tools provide a range of different options including a DOM inspector, JavaScript console and Resources view.

The styles tab offers a handy layout diagram that illustrates the box model being applied to the selected element.

The DOM and HTML source code can be directly edited, making it easy to adapt an existing page to incorporate new elements.



Taking its cue from Firebug, Chrome offers a suite of tools that largely mirrors the functionality found in the Firefox extension. You'll find a handy Elements/DOM viewer, which also incorporates some nice features such as pop-up previews of embedded media elements. In addition, the Resources tab shows all of the individual elements that are downloaded as part of the page request, including any JavaScript, CSS, favicon, image, video, font and Flash files.

The standout features of Chrome's developer tools are the Timeline, Profiles and Audits tabs. The Timeline tab simply shows how long each individual resource takes to load and render in the browser. This feature allows you to quickly identify any bottlenecks that are caused either by the server, your files sizes, or complex rendering code.

The Profiles tab allows you to perform unit testing of your JavaScript, analysing the extent to which each individual

call puts stress on the processor. This can be particularly useful when you're looking to squeeze every last ounce of performance out of your webpage or app.

Finally, the Audits tab offers a handy set of actions to help ensure that your page is (largely) standards compliant. It's not limited to picking you up on missing alt tags and invalid nesting though - also available are handy hints and tips on how to optimise your code for even better performance.

SAVE YOUR CHANGES

When you've been working inside Chrome's developer tools, creating new markup or styles, you can quickly save a copy of the revised page by right-clicking and choosing Save As... from the pop-up menu.

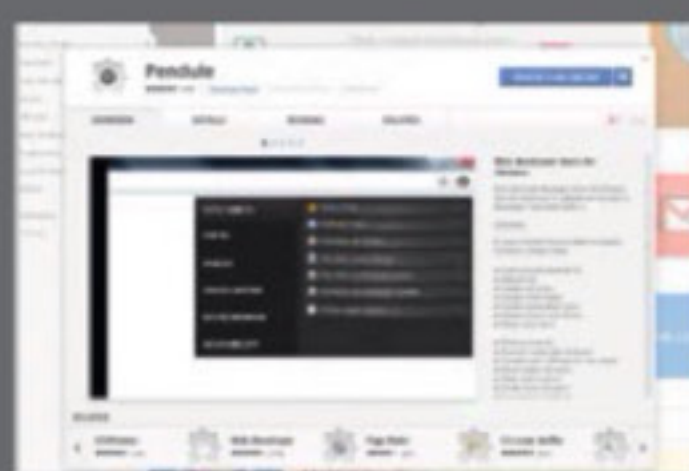
TOP TOOLS



■ MeasureIt! bit.ly/1bvfnZv

When you're converting a mockup from a static Photoshop comp into a working HTML page or deconstructing a design, it can be tricky to get everything perfect. MeasureIt! simplifies this with a measuring ruler.

The process is simple: draw out a ruler across the browser window, and MeasureIt! will feed back the width and height of any elements on the page. By using this in combination with the built-in developer tools, you can quickly resize and reposition elements to achieve a perfect representation of the mockup. It's also handy for getting an at-a-glance reading on the dimensions of a particular element within the page.



■ Pendule bit.ly/1f6nXMu

Pendule extends the built-in developer tools within Chrome to offer advanced functionality.

A handy set of features includes being able to automatically beautify CSS and quickly disable all styles; inline styles only, or embedded styles only. As well as the prettifying of source code (making it easier to see what's happening in a page), you can override any built-in form restrictions and alter a form's method.

One of the best features available is the ability to view generated source with changes highlighted, which is particularly useful when you're loading content using AJAX, or updating the DOM by inserting nodes at runtime using JavaScript.

EASILY EDIT A PAGE IN CHROME

Editing HTML markup and styles is straightforward in Chrome using the built-in developer tools provided



01 Open Developer Tools panel

HTML is editable via Chrome's developer tools. Right-click on the page you want to edit, and choose Inspect Element. This will open the Developer Tools panel. Now double-click on any element in the Elements tab to edit it, as the browser updates in real-time.



02 Style it up

Just as with Firefox's Firebug extension, Google Chrome's Developer Tools allow you to make on-the-fly stylesheet updates to your page. Select an element on the page as per the previous step, then use the Style tab to insert a new style declaration within an existing rule.



03 Delete elements

You can delete elements from your HTML source code using Chrome's developer tools. Select the element you'd like to remove using the Elements tab, and hit Delete on your keyboard. This doesn't remove the markup from the server, just from the current render of the page. If you'd like to save your changes, right-click and choose Save.



SHAPE YOUR SITE WITH SAFARI

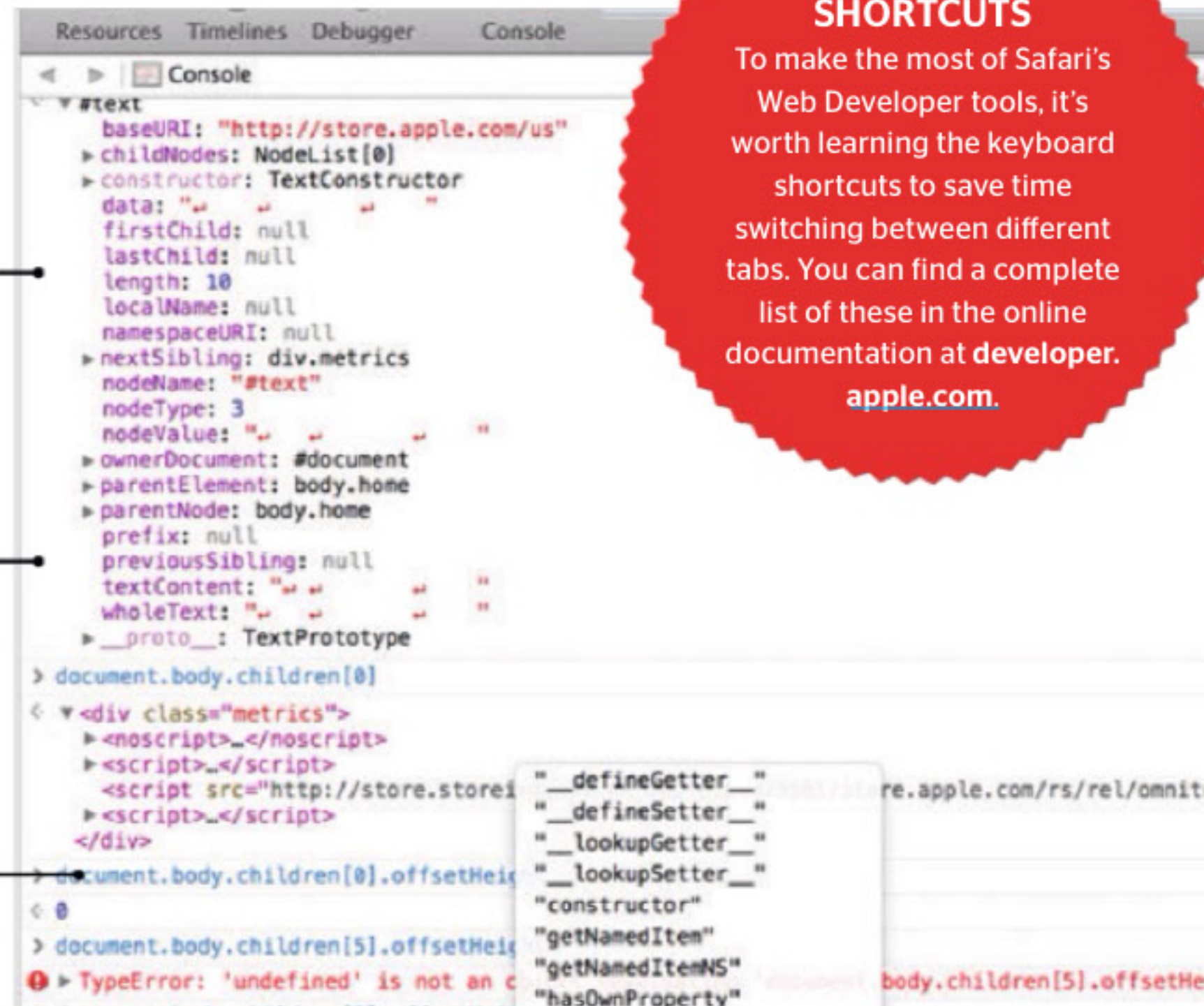
Safari has a complete set of developer tools at its disposal – but you need to enable them first!

■ bit.ly/1d7Livt

Like Firebug, Safari's developer tools offer a range of ways to interrogate the page's DOM, styles and resources.

The built-in console allows you to query objects and collections directly from the Web Developer panel.

The Resources view provides access to all the individual elements that make up the page, including cookies, local storage and any extension scripts.



LEARN THE SHORTCUTS

To make the most of Safari's Web Developer tools, it's worth learning the keyboard shortcuts to save time switching between different tabs. You can find a complete list of these in the online documentation at developer.apple.com.

As both Chrome and Safari share their roots in the open source WebKit project, you might expect to find a similar set of developer tools in both browsers. If that is the case, you shouldn't be disappointed! Safari boasts largely the same excellent toolset that Chrome offers, albeit with only a few minor differences in functionality or finesse.

Just as with the other tools we've looked at in this feature, Safari's developer tools allow you to inspect and edit HTML elements directly, viewing the updated page rendering as it changes in response to your edits. You can also access and alter the styles, and use the JavaScript console to test variables,

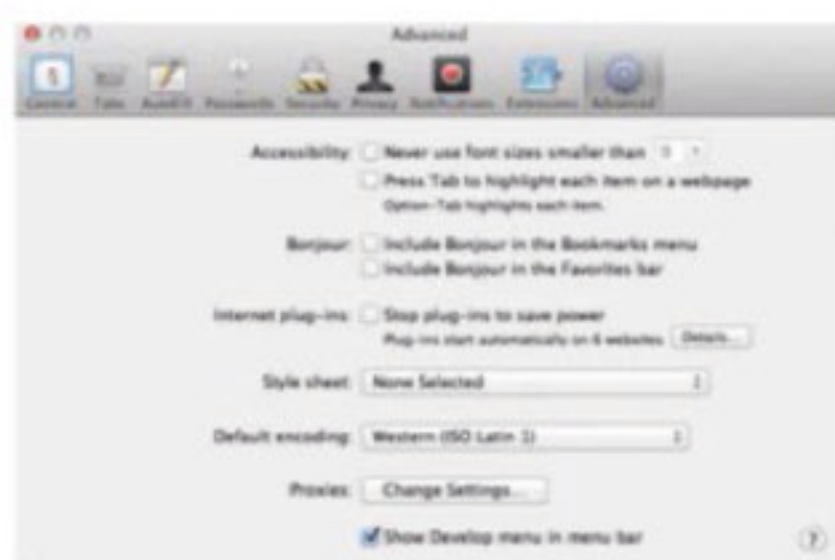
methods and actions. Naturally, you can also set breakpoints for your code to help you debug, and there's a useful timeline mode that allows you to track the way a page is loaded and rendered within the browser window.

The debugger facility makes it significantly easier for designers and developers to find problem code and identify the precise issue, whether that's an unescaped string or an unnecessarily resource-hungry loop.

Other nice features include the ability to switch between different colour models when editing CSS, making it easy to use a combination of different approaches (such as hex and rgba).

MAKE ALTERATIONS IN SAFARI

Safari's web developer tools are extremely capable and very easy to learn. Here we show you the basics



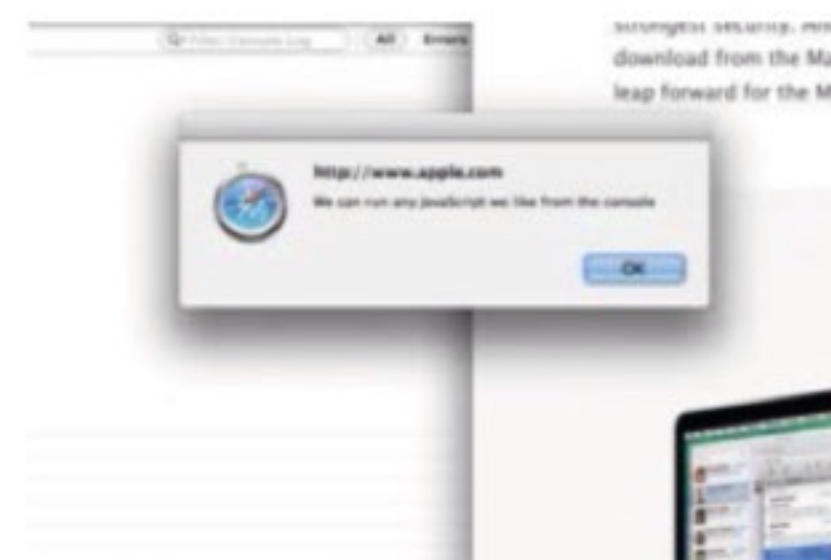
01 Inspect an element

Safari allows you to right-click on an element and inspect it using the developer tools. You do, however, need to enable the Developer menu before this will work. Choose Safari>Preferences, select the Advanced tab and ensure Show Develop in the menu bar is checked.



02 Edit HTML and CSS

Once enabled, you can edit the HTML and CSS of a page just as with all the other tools we've featured. Highlight the content you'd like to alter, right-click and choose Inspect element, then make changes in the Developer Tools window. Changes are rendered in real-time.



03 Use the console

The console allows you to interact with scripts that are already included on your page, as well as create new scripts. This can be especially useful when it comes to debugging, but there is no real limitation with what you can run in the console. Try a simple alert(); method to see this in action.

TOP TOOLS

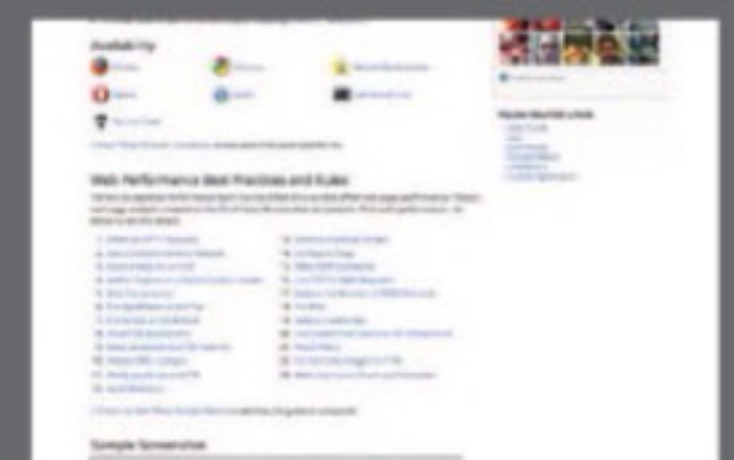


■ Inspect devices

bit.ly/1d7LSJK

One of the major benefits of Safari's built-in developer toolset; by enabling the option on your iPhone or iPad, you can access the entire toolset on your desktop while referring to a page loaded on your mobile device.

This is a powerful capability that makes it much easier to conduct on-device testing of your pages, and is especially useful when optimising JavaScript or CSS3 code to work well on these less powerful devices. You can find full instructions on how to set up your iOS devices to use the Safari developer tools at developer.apple.com.



■ ySlow

yhoo.it/1kyCH7W

The ySlow extension, developed by Yahoo!, is available for all the common browsers, so you're not limited to using Safari. ySlow allows you to inspect a page's performance, marking it against a series of tests and making recommendations to improve page performance.

There are a core 20-plus rules to ensuring the best performance of your page, and each time the extension runs it checks the page against these criteria. These are techniques that many developers employ, but if you've overlooked one or more, ySlow will alert you.



REDISCOVER INTERNET EXPLORER

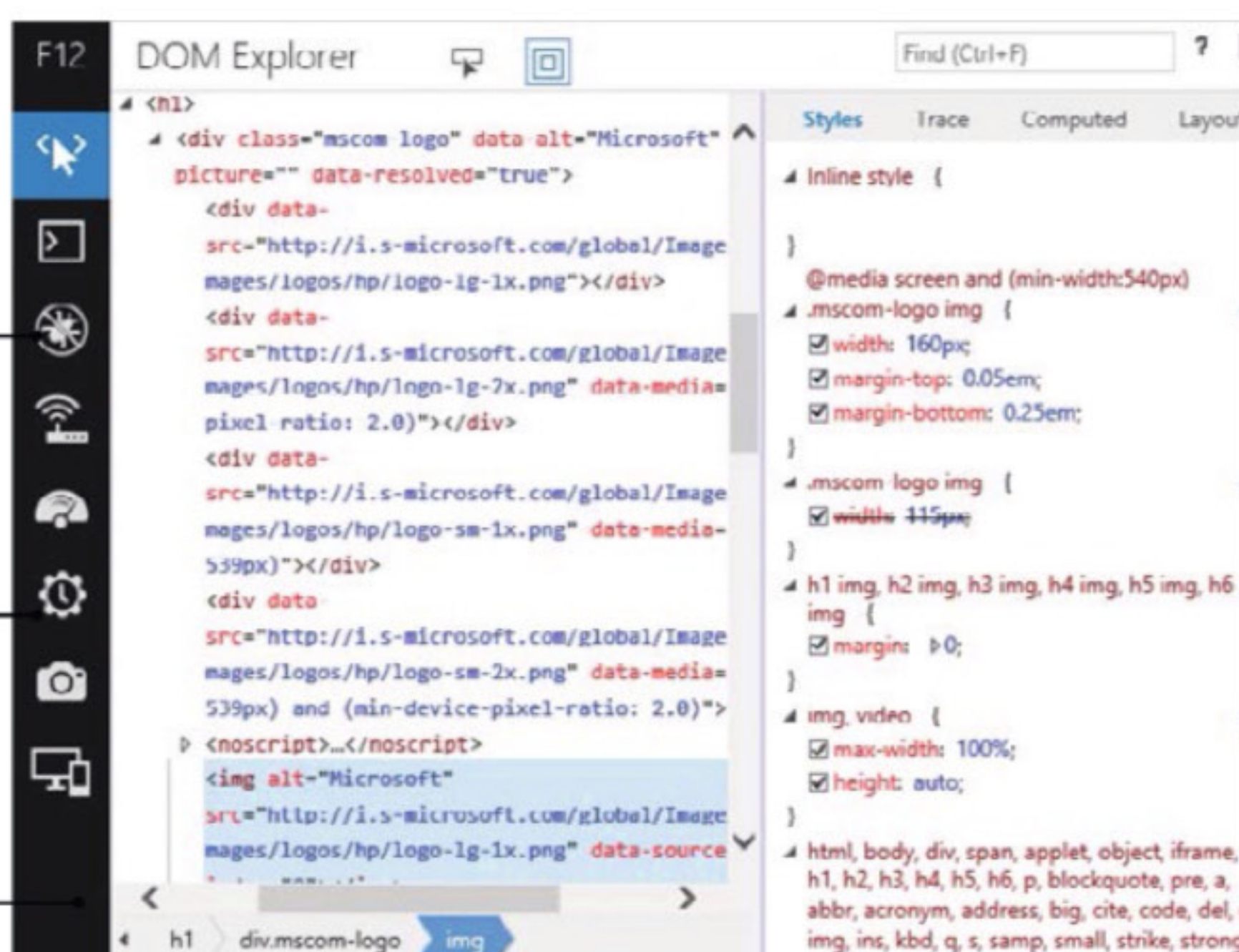
In the past Internet Explorer was the worst option for in-browser development, but with the introduction of IE11 this has changed

■ bit.ly/IENotW

Just as with all the other tools available, the newly refreshed Internet Explorer F12 developer tools offers a full web inspector and console.

Styles applicable to the currently selected element are pulled out into this area, allowing you to edit and preview the results in real-time.

A range of profiling tools are also provided under the Profiler tab, which enable you to analyse and test JavaScript and page performance.



If you're a web developer with more than a few years experience behind you, you'll probably be quite familiar with the limitations of the Internet Explorer debugging environment. In Internet Explorer 6, meaningless pop-up script error alerts would tell you something was wrong, but the facility to analyse and actually decipher what was causing the issues was unfortunately beyond the majority of designers.

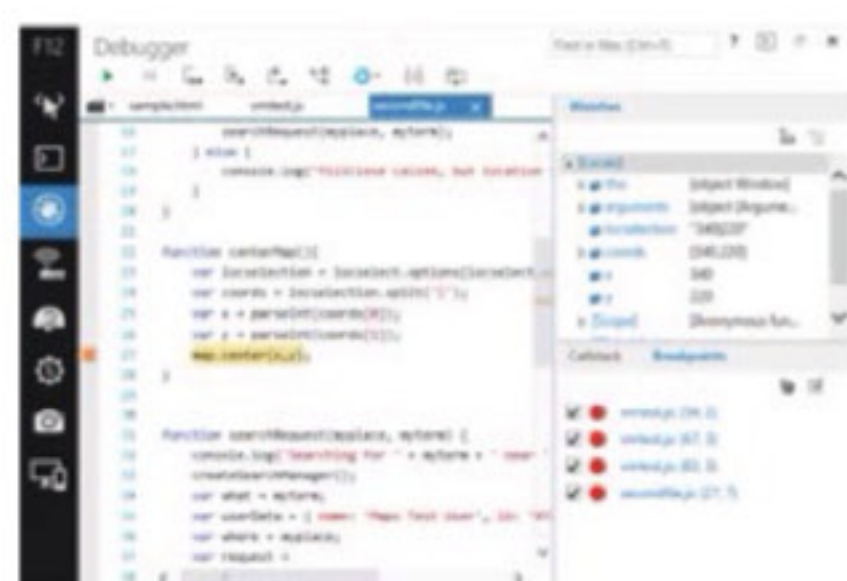
Thankfully this has all changed with the more recent versions of Microsoft's browser, and Internet Explorer 11 sees the arrival of a completely re-architected set of developer tools known as F12 Developer Tools, given its name since the keyboard shortcut to launch the suite is F12.

Present and correct are a DOM/HTML node editor and inspector, JavaScript console, profiling suite and network analysis tool. The same core features we've seen across all the other browsers are all present and correct here, so if you're either limiting yourself to using Internet Explorer, or simply want to analyse performance in this browser, you now have the complete toolset to allow you to do so.

There is still the odd cryptic error message that pops up, but with quick reference to the developer tools documentation at bit.ly/1gZ1v92 you can decipher these with relative ease. It's difficult to overestimate the importance of having these tools available, so web designers across the globe should rejoice!

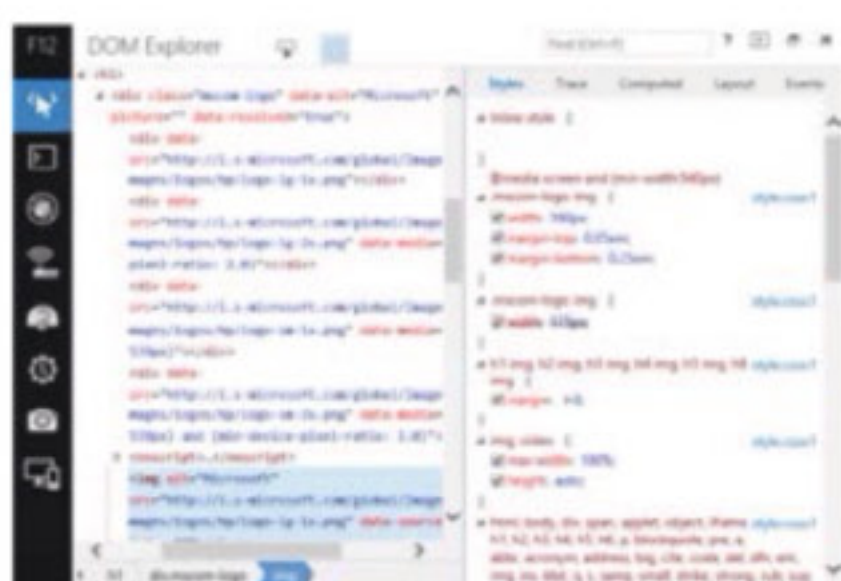
EDIT AND IMPROVE YOUR SITE WITH F12

Editing in-browser is now perfectly viable with IE's improvements



01 Open the tool

Opening the Developer Tools within Internet Explorer is really easy: simply press the F12 key on your keyboard. If you're using a tablet such as the Microsoft Surface, or your keyboard doesn't have a set of function keys, you can also access it under the Tools menu.



02 Edit a node

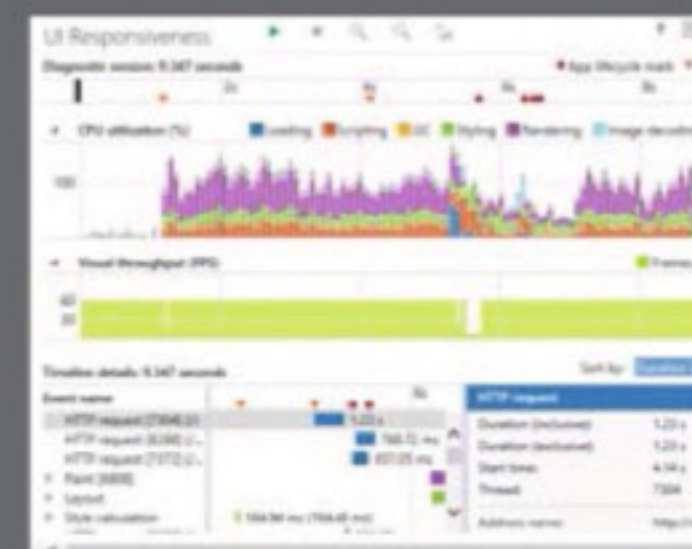
You can quickly and easily update the DOM by selecting a node directly inside the F12 Developer Tools window, or right-clicking on a page element and choosing Inspect Element from the pop-up menu. Once selected, you can edit and delete nodes by double-clicking or pressing the Delete key as appropriate.



03 Update the styles

This follows a similar user interface pattern to the other developer tools; to edit a style, first select the DOM node you'd like to interact with. F12 Tools will show you all the applicable styles for that node. Double-click inside an existing rule to add an additional style, or create an entirely new one.

TOP TOOLS

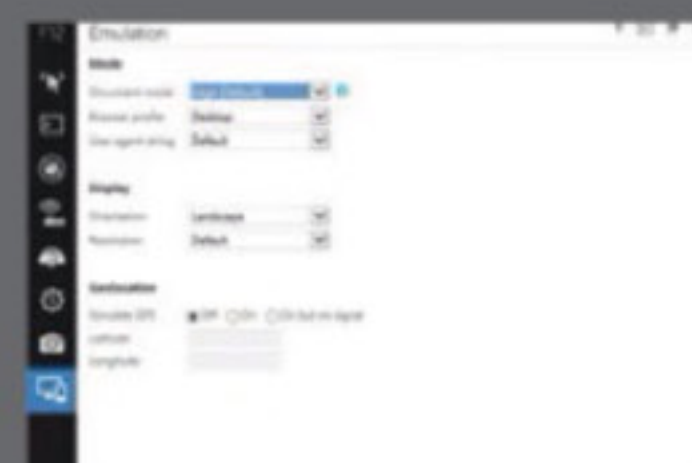


■ UI Responsiveness

bit.ly/1goID73

Thanks to Microsoft's own efforts, there are a number of additional tools available within the F12 suite. One example is the excellent UI Responsiveness testing tool. This testing suite graphically represents the loading and animation performance of individual elements within the page, allowing you to analyse where bottlenecks are causing your page to respond sluggishly.

You can access the UI Responsiveness tool from the F12 toolset you've already seen - just click on the Speedo icon to open the suite and get started.



■ Emulation tools

bit.ly/18IF9P4

Now you can emulate different browsers using Internet Explorer 11. Found within the main F12 window, as with the other tools featured here, the Emulation options are underneath the icon that looks like a monitor and mobile phone. This area allows you to simulate different rendering models and screen sizes, so you can pretend that you're viewing a website with a Windows Phone instead.

You can also make IE pretend to be elsewhere on the globe, which is handy if you're serving location-aware content.

O DESIGN AND CREATE IN OPERA

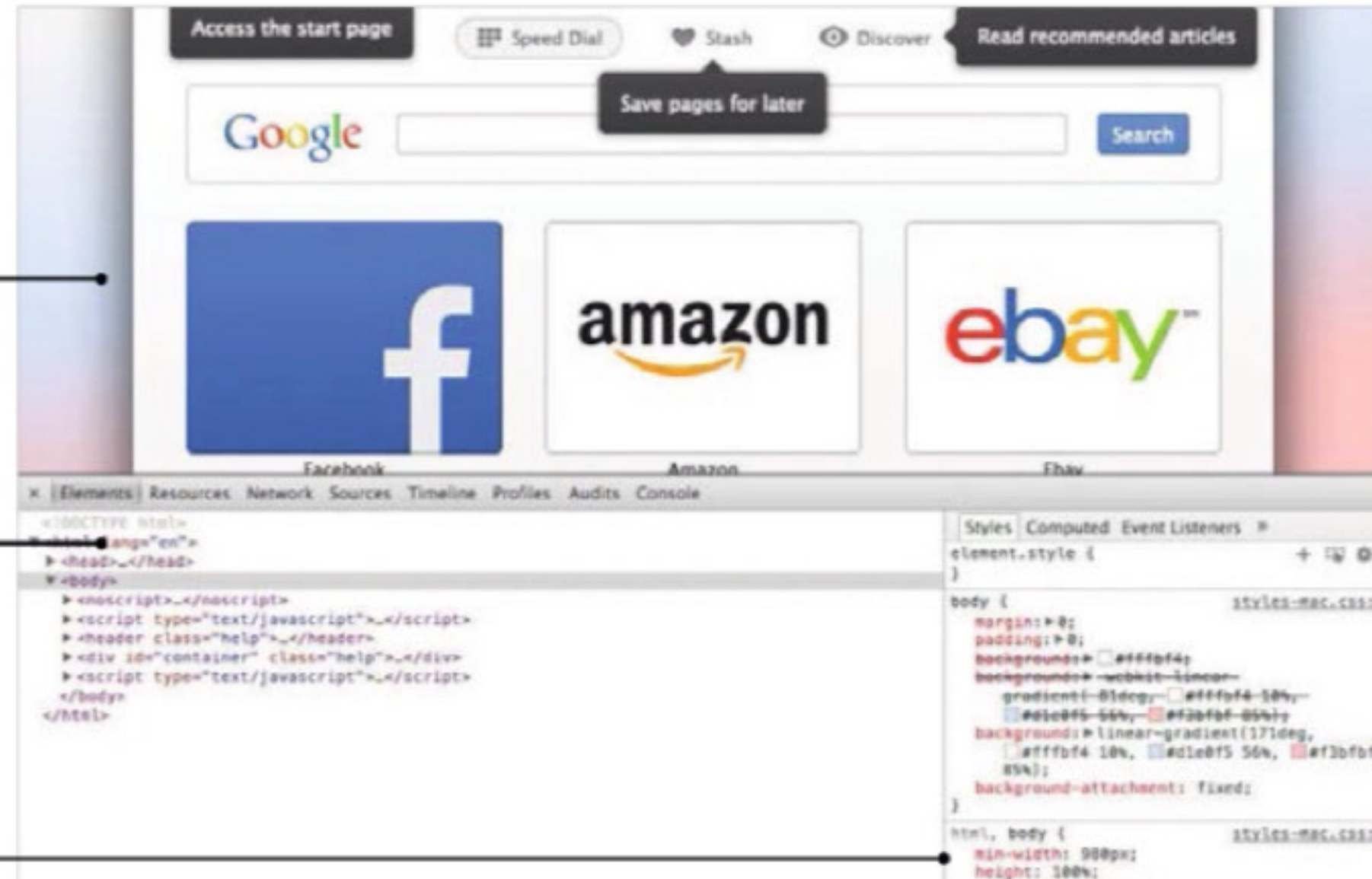
Opera is one of the oldest browsers still available today, but how does it compare to the market leaders when it comes to developing in the browser?

■ www.opera.com/developer

Opera ships with a complete set of developer tools – Dragonfly – that allow you to interact with and query a page with ease.

The console allows you to interact with the scripting engine on the page, querying elements and loading content as necessary.

Styles can be updated directly using the built-in styles browser, which also works in combination with the HTML DOM viewer to report on active styles for the selected element.



USE CHROME EXTENSIONS

Because Opera now shares the same rendering engine as Google Chrome, you'll find that many of the extensions available for Chrome will also now work on Opera!

Opera has always threatened to be a powerful force on the desktop, but has never really achieved the market share it perhaps deserves. Away from the desktop, however, it has significant support. This is reflected in the team behind Opera's decision

to move away from the Presto engine to use Chromium instead.

Immediately following this move, Opera was temporarily left without a set of developer tools. This caused developers to cry

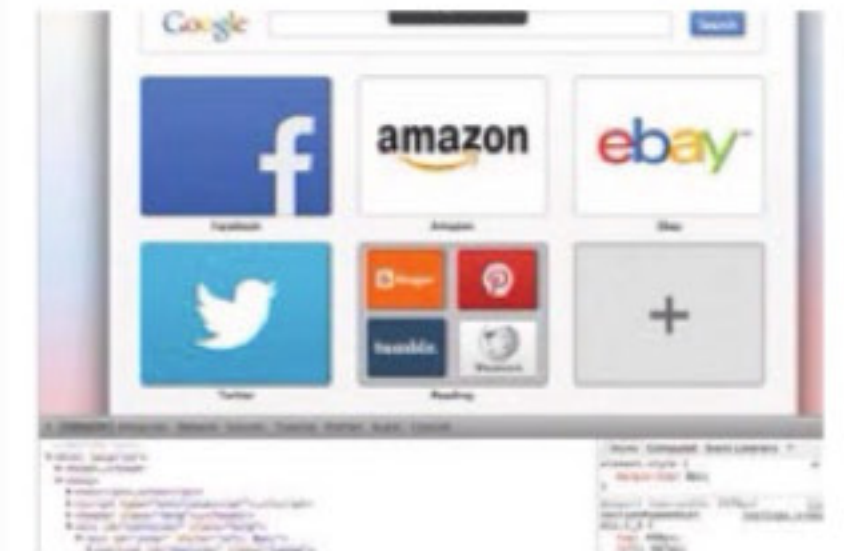
shame, as Opera's solution – Dragonfly – was a well-realised set of developer tools that offered an excellent cross-platform solution to developing not just for the desktop, but also for devices unsupported by other browsers.

Thankfully, things have changed and the developer tools are back and as good as ever in the latest version of Opera. So once again designers and developers have full access to a suite of tools that allow them to inspect and interrogate pages, as well as develop directly within the browser.

As is similar to the other tools we've already covered in this feature, Opera's Dragonfly allows you to edit, insert and delete HTML directly within the DOM. You can also edit the CSS and scripts used on a page. And, as you might expect, there's a full set of analysis tools available here too!

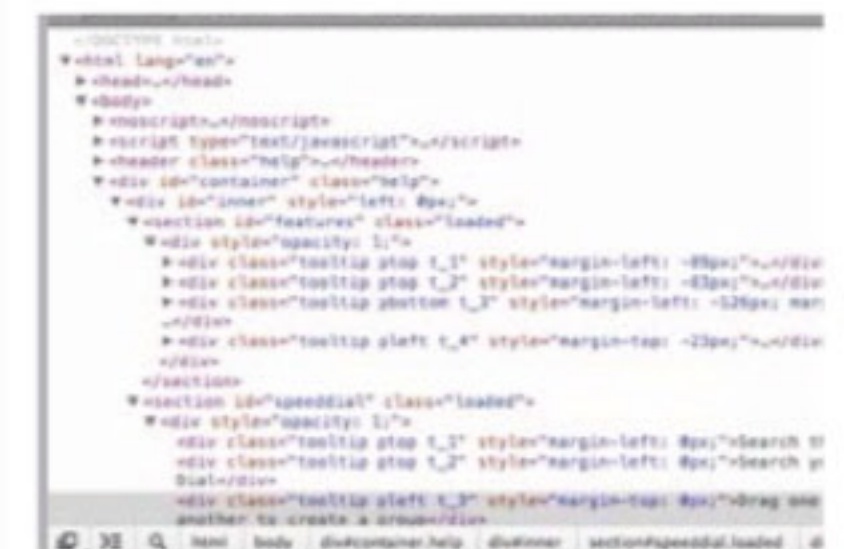
USE OPERA'S DRAGONFLY TOOLS

Use our quick-start guide to get going with Opera



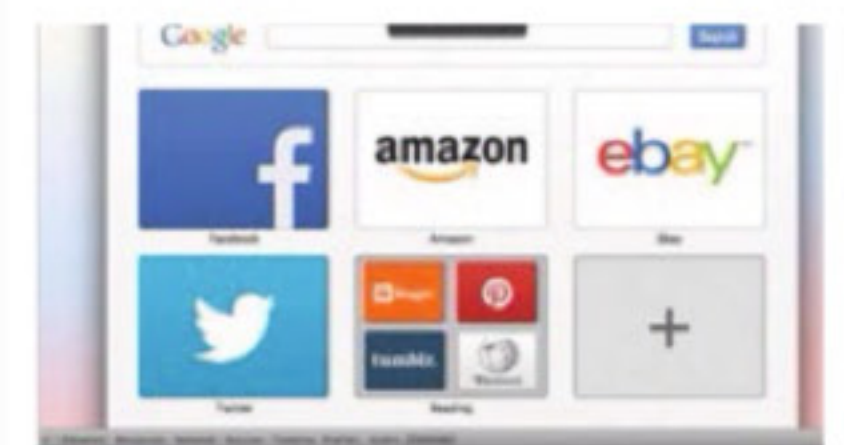
01 Inspect an element

Opening up Dragonfly, Opera's developer tools suite, is really easy. Simply press Ctrl+Shift+I on a PC, or Cmd+Opt+I on a Mac. Or, you can select a single part of a page, right-click on it and choose Inspect Element from the pop-up menu to launch Dragonfly.



02 Edit the CSS

Just like with Chrome's Developer Tools, Dragonfly allows you to interactively update the CSS of individual elements on your page. This makes it a fantastic option for iteratively designing directly within the browser. Simply target the element you'd like to add styles to, and add/remove styles using the Styles tab.



03 Use the console

You'll find a console that allows you to query existing collections, objects and variables, and insert breakpoints for code analysis. Open the console tab, and type in alert("hello world"); to see it in action. If you have a library included in your page, you can access any of the methods exposed by the script – use the same syntax as normal.

TOP TOOLS



■ Cross-platform development

www.opera.com/dragonfly

Opera is a big player in the mobile world. If you're targeting devices outside desktop, it makes

a lot of sense to test and develop your site using Opera. Happily, Dragonfly works across all devices, so you can use the same toolset to inspect and query your page whether you're testing against a tablet, smartphone, or desktop.

This is especially useful when it comes to older phones or embedded devices such as TV set-top boxes. The former are especially prevalent across the developing world, where the latest versions of Android or iOS aren't nearly as relevant or universal as they are in the UK.



■ Chromium-based extensions

bit.ly/1bHfcbG
Since Opera dropped its Presto rendering engine

and moved to the Chromium engine, which also powers Google Chrome, Opera is now compatible with a range of plug-ins for the Chrome browser. This means any extensions you're already using and familiar with on Chrome will likely work in Opera too. Similarly, any specific-to-Opera extensions that have been converted to use the Chromium engine will work in Chrome.

An example of such a tool is the Accessibility Developer tools, provided by Google Accessibility. This adds an accessibility audit to the developer toolset, and an additional accessibility sidebar in the Elements tab inside Chrome's developer tools, or Opera's Dragonfly.

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Discover the amazing benefits of CSS preprocessors and how they can power up your code **Page 82**

A beginner's guide to Brackets

How to code the web with the editor built by developers for developers **Page 94**

Build data-driven interactive UIs

How to make a modular app with real-time UI updates in Knockout.js **Page 88**

SUPERCARGE YOUR CSS

Do you want to spend less time writing CSS and more time doing fun stuff? A CSS preprocessor could change your life

It's that meeting on Friday. Your team has worked on the site for the last month. This is the final client review. Everyone loves it, until the client leans in and says 'Fantastic. But I don't like that font. And my new phone has rounded buttons, not square ones. So could you add those too? Otherwise - good job everyone. Get those changes in for Monday'. If you put your site together with plain old CSS, even making basic changes will take a while.

But you didn't. You used a CSS preprocessor. Most of the key styling is in a few lines of a single file. Instead of hours of manual search and replace, which will probably break the site because it's nearly impossible without making any mistakes, you can make a few minor changes that take a few minutes.

You can even make them live in the meeting, and run the changes there and then for approval. Instead of gloom, everyone cheers and officially votes you

Most Awesome Person of the Week when you break for a nice early weekend an hour later.

And that's the power of preprocessors. Manual CSS is like building a skyscraper out of matchsticks. Preprocessed CSS sends your productivity soaring into a cloudless sky, leaving you free to concentrate on all those elements of design that really matter. But what does that mean in practice? Read on to find out exactly what CSS preprocessors can do for you.

WHAT IS A PREPROCESSOR?

CSS preprocessors take the CSS code you've always wanted to write, and turn it into the CSS code you've always had to use. CSS has always been half a solution. It's better than manual markup, but it's not a sleek and efficient way to specify styling elements.

A key problem - apart from the crafty syntax - is that CSS has no memory or intelligence. In coder-speak, this makes it WET: Write Everything Twice. So you'll often have to write the same stylings again in many places. Plus, if you want to change something, you have to find those places again and hand-edit them.

Preprocessors take some ideas from hardcore computer programming and put them back into CSS, making code that's DRY - Don't Repeat Yourself. With a preprocessor you can get closer to having every key design element defined in exactly one location.

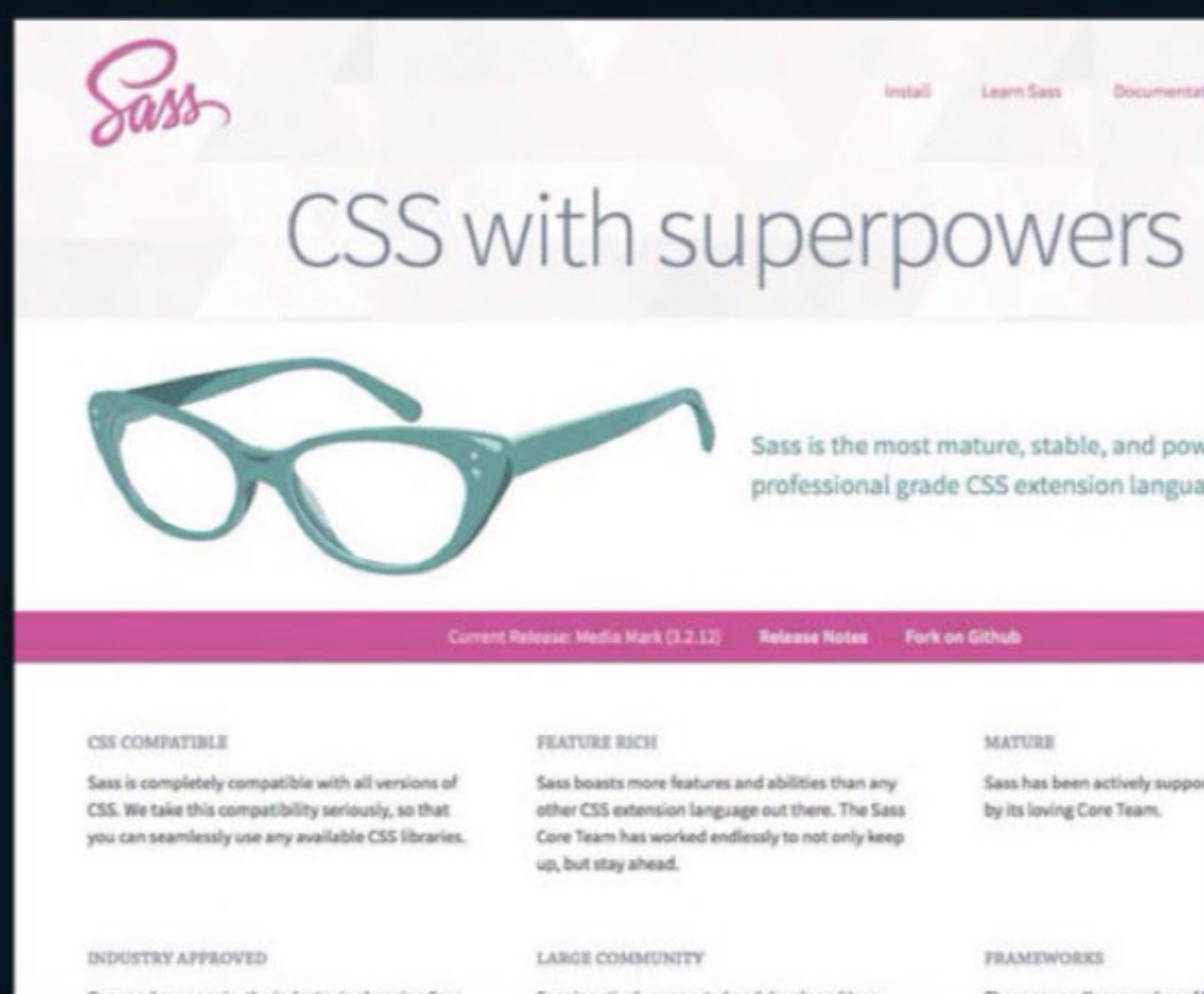
This has many benefits. You can change an entire site's styling with a few edits. You can reuse the same code across multiple projects, completely separating styling from content mechanics. And you can write smarter CSS that does basic script-style maths to manage elements, makes the relationship between

classes and selected elements much clearer, and generally helps you keep the design templates that are cleaner, simpler, and easier to manage.

But there is a catch: there's no direct browser support for preprocessed CSS. So you can choose to compile your pre-CSS on your development machine, and upload the standard CSS that's generated. Or you can set up your server to work with raw pre-CSS files, generating the CSS on the fly. The good news is tool support for pre-CSS is getting better all the time, and some editors now work with pre-CSS code directly.

THE BIG THREE

There are three popular mainstream CSS preprocessors – and they're all great – but here's how to tell them apart



■ SASS sass-lang.com

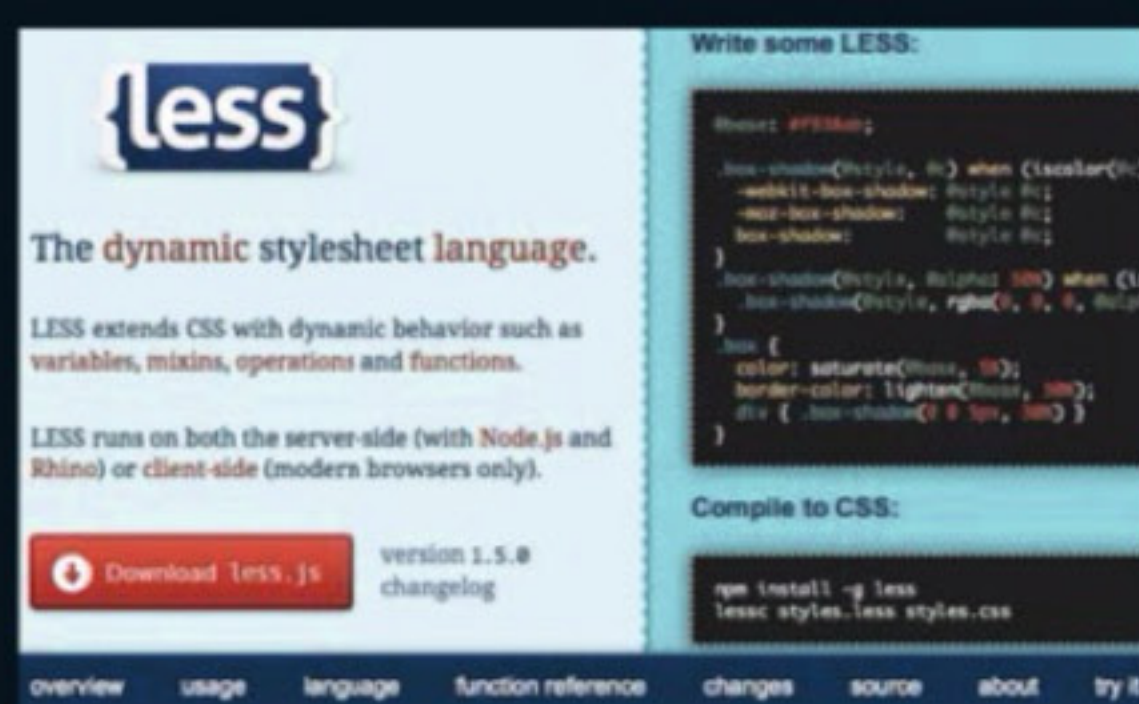
SASS (Stylishly Awesome Stylesheets) is newer than LESS, but has a serious following among professional developers, especially when associated with the Compass framework (compass-style.org).

SASS is written in Ruby, which is preinstalled on OS X, but must be installed on Linux and Windows. SASS works best developer-side, compiling preprocessed CSS to standard CSS you upload to web servers. There are many tools to automate the compilation and upload.

As a language, SASS is a two-in-one. You can write SCSS, which – like LESS – is a strict superset of CSS. Or write pure SASS, which isn't. Compared to LESS it has some extra smarts, including conditionals/

repeats outside of mixins, and more complex selector management. When used with Compass, it adds features like sprite management, simplified grids and typography, easier cross-browser support, and plenty of predefined style options.

It's also being maintained and developed more consistently than LESS. On the downside, it can compile more slowly, which can be an issue. The extra features also mean there is a learning curve. The tutorials and references on the main SASS site could be a little more generous too. But there's a strong support community, and many online examples, including some standout sample code on The Sass Way blog (thesassway.com).



■ LESS lesscss.org

LESS was originally developed by Alexis Sellier. It has very good foreign language support, so it's worth considering if English CSS isn't your main interest.

LESS defined the basic feature list for a preprocessor. It includes variables, allowing you to set a value in one place and use it by reference everywhere; mixins, which are variables that drop all the content of a class into another with a single line; rule nesting, which clarifies inheritance; functions, which can modify variables with arithmetic; and plenty of colour-management features.

LESS includes guarded mixins, which produce different CSS according to tests you specify – but it doesn't have fully general conditionals. Often used with Bootstrap, LESS is great for grids with optional CSS3 support for animations and gradients.

Client-side, you can run LESS from the command line, or from visual tools. Server-side, you can install a native LESS compiler – a bad idea if you get a lot of hits a day. You'll get a much better performance from Node.js or Mozilla's Rhino JavaScript engine.



■ STYLUS learnboost.github.io/stylus

Stylus isn't as popular, but it is certainly worth a look. Transparent mixins are a big win. You can define functions normally, but you don't need to specify a list of parameters. Stylus can copy any parameter string into the CSS, making functions more powerful. It also has iteration and loops, so you can generate repeated elements with styles under code control.

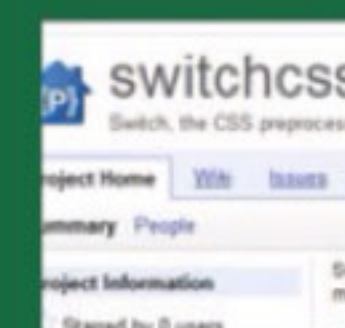
Stylus extends this with interpolation, which is its own way of allowing what mainstream programming languages called enumeration – the ability to step through a predefined list of strings of values with a few lines of code, and to drop the strings/values into the final CSS. It's a good way to write efficient code, with the downside that it can be harder to read.

Stylus syntax can be pared to the bone. You don't need to include colons, semi-colons, or curly brackets. But you do need to include whitespace so Stylus knows when you've started a new definition.

Stylus runs under Node.js, so you'll need that, and then use NPM, the node packet manager, to install Stylus. Try some experiments online on the Stylus site.

TWO ALTERNATIVES

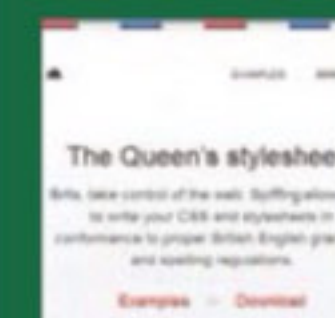
If none of the big three are appealing, you could always give these options a try



■ SWITCH bit.ly/18AbUbB

Switch is a preprocessor in Embryo. Its big feature is out-of-the-box Apache compatibility – it runs as an Apache module under mod_python, which gives Apache support for the Python programming language. The code is freely available at code.google.com/p/switchcss. If you're minded to explore full-cream code development, Python is a good language to start with. It's much easier to work with than heavyweight languages like C++ – and it's not impossibly difficult to customise Switch to create your own mini-preprocessor.

■ SPIFFING



spiffingcss.com

Do you need a preprocessor that plays stirring patriotic music while draping red, white and blue bunting around an old red British phone box?

Probably not. But just in case, take a look at spiffingcss.com. It swaps spellings like 'color' and 'gray' into sensible English words like 'colour' and 'grey'. It even converts the brashly self-absorbed 'important' keyword into 'I please.' Tea and scones not included, unfortunately. But it's smashing for weather apps.

INSTALLATION OPTIONS

The basics and limitations of installing each of the popular CSS preprocessors

COMMAND LINE

LESS is written in JavaScript. You can include the script in your sources while developing – but not for production, unless you want to cripple your server. For a one-time final compile, install Node.js on a dev machine and run the .less files through the lessc tool (visit bit.ly/1bG2N9D).

SASS works with Ruby. See rubyinstaller.org for Windows, and www.ruby-lang.org/en/downloads for Linux and OS X (Mavericks includes a version of Ruby, but RVM can manage multiple versions). You can then 'gem install sass', and use 'sass input.scss output.css' in order to compile.

Stylus also needs Node.js. Once installed, Stylus gives you many more command line options than the other tools, including some clever features for handling entire directories of files. See bit.ly/1bagyKS for examples.

There are great GUI tools that make the command line unnecessary. You only need the command line if you're doing big scripted builds with many files, or if you want to write your own shell scripts to compile CSS, upload it, and archive it at the same time.

SERVER-SIDE

If you have Node.js on your server, you can install LESS as an npm package with 'npm install -g less'. You can then use the lessc tool to compile files manually, just as you would on a development machine. But you can also render CSS live with Node's less.render command but this can get pretty complicated.

In theory, SASS is never run server-side. In practice you can set up Ruby on a server and have it either compile on the fly whenever the user loads a page (inefficient...) or compile then cache, so only changed files are rebuilt when they need to be.

Stylus is available for Node.js as an npm package. With Node you can use scripting to customise your compilation workflow in the usual way. Alternatively, use another web server called Harp.js, which has support for Stylus baked in.

For simplicity it's always better to compile once then upload/copy and forget. The main benefit to running server-side is you can copy the files to a final server destination directory without having to upload them from one machine to another.

❖❖ You can include the script in your sources while developing – but not for production, unless you want to cripple your server ❖❖

TOOLS TO MAKE PROCESSING EASIER

Check out some of these offerings to help simplify processing, from toolkits to editors



■ **CODEKIT**
incident57.com/codekit

CodeKit is the ultimate preprocessor toolkit, with built-in GUI support for LESS, SASS, and Stylus and automatic compilation after any edit. Forget the command line, with CodeKit you can experiment with all the preprocessors in one place to see which suits you best.

CodeKit speaks fluent CoffeeScript, Jade, HAML, if you need those as

extras. For \$28 – payable after a free trial period – you get an impressive selection of tools for HTML, JavaScript, as well as CSS management. You can even mash JavaScript and CoffeeScript files together, then minify them before uploading, optimise images, and test JavaScript with JSHint and JSLint.

CodeKit is only available for OS X. There's no Windows or Linux version, and it's unlikely there ever will be. Note though that CodeKit is not an editor – it's a compiler and packager.



■ **SCOUT**
mhs.github.io/scout-app

Scout takes the effort out of Ruby, Compass and SASS for Mac users, by bundling them all into one development environment. It includes a project console for file and directory management, and an embedded terminal output window.

It's not a full GUI editor – like CodeKit, you'll need to do your editing elsewhere

– but it simplifies project management for developers who want to work with SASS and Compass but don't want to end up dealing with command line directory copying and compilation. You are able to set up development and production environments, specify input and output directories, and leave Scout to handle everything else.

Scout is Mac-only but it's completely free. It's also open source. The code is available on GitHub, so you can fix and/or modify it for yourself.



■ **LIVERELOAD**
livereload.com

LiveReload combines built-in compilation for SASS, LESS, Stylus and an alphabet soup of other tools.

LiveReload's big feature is automated compilation: it monitors the files in your project and automatically recompiles CSS when you edit it, so you don't need to worry about command line tools or setting up a preprocessor on your server. Optionally you can run a script after

each compilation – for example, to run FTP and upload the compiled files to a production server.

LiveReload is available from the Mac App Store for \$9.99. Versions are also being developed for Windows and Linux, but they're not quite ready for prime time – but they are free, so you can try them out and see if they do enough to be worth working with. There's a useful knowledge base with information about getting started, selecting an editor, and setting up frameworks and other topics.



■ **CRUNCH**
crunchapp.net

Crunch is a LESS editor and compiler. You edit LESS, you save CSS. It's that simple. You don't need to set up a command line tool, or install any extra add-ons, plug-ins, extensions, daemons, apps, or anything else.

Crunch is Mac-only, and free from the website. There really isn't all that much else to know. It works in a simple GUI-editor kind of a way. You are able to have multiple files open at the same

time. It's LESS only, so there's no support for SASS or Stylus. It also doesn't have any direct links to Bootstrap or any other LESS-friendly frameworks.

Nevertheless, Crunch is a good option if you want to do some quick experiments with LESS without getting distracted by the time needed for a more comprehensive server- or client-side installation. It's by no means the most complete CSS editor out there, but it's simple, clean, accessible – and it does what it sets out to do.

PREPROCESSORS IN ACTION

VARIABLES AND ARITHMETIC

So how do you use a preprocessor in practice? Here are some examples

Create DRY code with simple automated colour effects

All preprocessors support variables with optional math functions. Even if you never use any other preprocessor feature, variables can save you hours of update time by concentrating critical definitions in one location in one file. This is usually at the start of the file, although for even simpler maintenance you can keep all the main colour palette and font definitions in one file and import it into the others. In LESS, variables begin with @. In SASS, they start with \$, rather like PHP variables. Stylus is understated, and you don't need any special symbols.

The following code illustrates a very simple SASS example, compiled in CodeKit. It defines two variables: a font list, and a text colour. There are also a couple of sketched out container definitions, so you

can see exactly how the variables are used. The compiler takes the variable values and parks them inside the standard CSS. The second example also applies some basic arithmetic to the predefined colour. All the preprocessors have more sophisticated colour features, but note how easily you could create a palette of related colours, given a base colour and some very simple extra code.

```
001 //Original scss
002 $font-list: Helvetica, sans-serif;
003 $bodytext-color: #111;
004 .acontainer {
005   font: 100% $font-list;
006   color: $bodytext-color;
```

```
007 }
008 .another_container {
009   font: 50% $font-list;
010   color: $bodytext-color*0.1;
011 }
012 //Compiled CSS
013 /* line 4, ../sass/new.scss */
014 .acontainer {
015   font: 100% Helvetica, sans-serif;
016   color: #111111; }
017 /* line 9, ../sass/new.scss */
018 .another_container {
019   font: 50% Helvetica, sans-serif;
020   color: #010101; }
```

USE MIXINS

Manage browser support with one-off browser-specific definitions

CSS3 can drive you insane with endless repetitions of browser-specific code every time you want to use a feature. A mixin is like a variable that contains boilerplate definitions you define once and re-use over and over. To confuse you, this time LESS uses a dot to define a mixin, while SASS uses @. Stylus mixins look like functions, with round brackets, although they're treated like standard properties.

Although mixins look more complicated than variables, they're almost as simple and they may be more useful, especially for CSS3. LESS has an extra feature called a guarded mixin, which can include a conditional if/else test that only applies the mixin if the test 'triggers' true. Just add 'when' after the mixin, and follow it with a condition.

The following SASS code provided is simpler, and shows how to simplify basic CSS3 browser support.

Note how it uses @include, and a variable called \$radius and passes its value to the mixin, which fills in the details when it's compiled. You can change the value that's passed each time you use the mixin.

```
001 //Original scss
002 @mixin border-radius($radius) {
003   -webkit-border-radius: $radius;
004   -moz-border-radius: $radius;
005   -ms-border-radius: $radius;
006   -o-border-radius: $radius;
007   border-radius: $radius;
008 }
009 .rounded_box {
010   @include border-radius(50px); }
011 .very_rounded_box {
012   @include border-radius(500px);
```

```
013 }
014 //Compiled CSS
015 /* line 9, ../sass/new.scss */
016 .rounded_box {
017   -webkit-border-radius: 50px;
018   -moz-border-radius: 50px;
019   -ms-border-radius: 50px;
020   -o-border-radius: 50px;
021   border-radius: 50px; }
022 /* line 13, ../sass/new.scss */
023 .very_rounded_box {
024   -webkit-border-radius: 500px;
025   -moz-border-radius: 500px;
026   -ms-border-radius: 500px;
027   -o-border-radius: 500px;
028   border-radius: 500px; }
029
```

CREATE LOOPS

Save time by creating repeated code with a simple loop

CSS is literal; unlike real programming languages, it has no concept of repetition or progress. You can fix this in a preprocessor. Some possible applications of repetition include creating grids and tables with optional shrinking/expanding elements, a set of font sizes from a base size, a colour palette from a base colour and a list of URLs given the keywords they differ by.

LESS has basic looping. You have to make it behave with a combination of a

loop index variable and @when followed by a conditional that ends the loop. SASS has much simpler syntax, with a proper @for statement for basic counting, and @each for reading items from a list and doing something with each one. Stylus can do both, without the punctuation. Use for... in and follow it with (1..5) for counting, or a list of text items.

A detailed demonstration of this looping code can be found at www.webdesignermag.co.uk/tutorial-files

NESTED RULES

Lost your way with inheritance? Preprocessing can lead you home

Inheritance can kill a bigger project where the basic elements have tens of variations. With nested rules, you can keep all the related details in a single location, indented for clarity. Nested rules make it much easier to keep track of which sub-elements have which styles, and - even more usefully - the added readability makes it easier to see where you need to make changes to update some elements, while leaving others unchanged.

Nested rules in SASS and LESS look very similar. You add extra curly brackets and indentations as you work your way down the inheritance tree. Stylus is simpler, and uses plain indentation with no extra brackets. This makes it easier to read, and edit.

There's no practical limit to the extra definitions you can add, or the order you can add them in. A SASS example can be found at www.webdesignermag.co.uk/tutorial-files.

THE FUTURE OF PREPROCESSING

There's even more to come, as CSS gets closer and closer to a real programming environment

The biggest change in the near future will likely be the wider use of preprocessors. In a css-tricks.com survey last year, it was revealed that nearly half of all users still hadn't tried a preprocessor. It's true there's a certain learning curve involved – especially if you're installing a server-side implementation or working at the command line – but the initial time demands are tiny compared to the effort you can save yourself if you add a preprocessor to your workflow.

All the main CSS preprocessors are continuing to be developed, but at the moment there are no plans to roll any of them into official w3.org CSS specifications – so don't expect to see native browser support for a while yet. A few features, such as smarter selectors, are working their way into mainstream CSS. But for the time being, the inefficient official syntax is unlikely to change.

What may change, however, is the way developers think about CSS. The official aim of CSS was to abstract content from presentation. HTML and CSS includes hints of a mainstream coding technique called object-oriented programming, but they certainly don't take it as far as it could be taken.

Nicole Sullivan's Object Oriented CSS (for a helpful introduction provided by Nicole herself, visit slidesha.re/4y3U0u) doesn't just try to fix inefficient CSS syntax, it attempts to fix inefficient design practices. The idea is to move CSS and HTML towards a cleaner, more straightforward but more abstract form, where it's easier to make content containers smart and responsive, while also avoiding unnecessary repetition in coding.

The other likely development is an ever-growing number of drop-in frameworks. In the same way that LESS is associated with Bootstrap, SASS is closely associated with Bourbon (bourbon.io) and also with Zurb (foundation.zurb.com), while Stylus is associated with Jeet (jeetframework.com). Expect more of this in the future, and less reinvention of grids and wheels as site developers share their tools.



■ Nicole Sullivan's object-oriented CSS is influencing future CSS developments

TOP TIPS

Preprocessors can seem intimidating – here are some quick notes to get you started

■ The big picture

Think workflow, frameworks, and creative benefits

It may seem like there isn't an easy way to decide which preprocessor to use. They all speed up your workflow, at the cost of some initial learning – and that's what you want.

But that's not the whole story. The goal is to create superb, silk-smooth and stylish websites. A preprocessor will save you time, but you'll get a bigger benefit if you combine it with the right framework. So ignore any set-up and deployment issues, and ask yourself exactly which framework you want to work with. Then work back from there.

■ Work smarter

Explore your workflow options to maximise your productivity

One of the secrets of success is making sure that once you've decided on a preprocessor and framework, you understand the workflow options you can use.

The two choices are simple: manual or automated. With a manual workflow you use an editor or a GUI tool to create CSS in the usual way, with the difference being that you write preprocessor code and upload the compiled code. Automated workflows are more complex, and you don't have to set one up immediately. You can get comfortable with learning the preprocessor first, then worry about setting up a workflow separately.

■ Pain-free debugging

Swat those bugs by using readily available, smarter code tools

Debugging preCSS can be challenging. The target browser never sees your native preCSS code, it only sees the compiled CSS, because that's the only code it can make sense of.

So how do you fix bugs? A diligent web search will find tools you can add to most environments. They're often in an alpha-ish state, so don't expect a polished performance – but they're better than nothing. For example, try the FireSass add-on for FireBug (mzl.la/gXg7x2). Other tools include Sass Sleuth for Safari and OS X Chrome (bit.ly/18jD94x), and Sass Inspector for Chrome (bit.ly/YiVSGO). Chrome's Developer Tools can work with LESS and Stylus files as well, as long as you compile them with the source maps option.

■ And for HTML...

It's not just CSS that could do with a little tightening up

For maximum productivity, consider using an equivalent HTML preprocessor. HAML and Jade, among others, can take you some way towards working with condensed, shorter

and clearer HTML without the over-complications built into native HTML.

If you've set up a CSS preprocessor workflow, you'll already have the tools you need to work with an HTML preprocessor. But is it worth the extra time? You'll be writing cleaner code that's easier to read and maintain. It won't be standard HTML any more, which may not be a good thing for some applications – although of course, you still get raw HTML files after compilation.

Arguably HTML isn't as half-finished as raw CSS, so the benefits of a preprocessor may not be as obvious, but it's still worth exploring what's out there. Done right, integrated preprocessing can make your projects run more smoothly, increasing your chances of delivering work on time and under budget.

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Create data-driven interfaces with KnockoutJS

Make a modular app that has real-time UI updates, multiple views, and is easily maintainable and extendable

tools | tech | trends JavaScript, HTML5, jQuery, KnockoutJS, RequireJS, ChartJS **expert** Tim Stone



JavaScript developers have had it pretty good recently thanks to a proliferation of excellent MV* frameworks. One of the most popular is Knockout, the brainchild of Bristol-based Steve Sanderson. Knockout utilises the MVVM pattern (Model-View-ViewModel) which sounds scarier than it is. It starts with a Model, which is your data; this is rendered in a view, your HTML; the View Model is the glue that binds data to your view, controlling what is seen and when.

MVVM encourages web developers to think more about how they structure their JS applications. This separation allows one of Knockout's best features: automatic UI refresh; when data in your View Model changes the UI updates accordingly.

We're going to dive into how to use the Knockout library with RequireJS to build a web interface. We'll build an app that will list your films, get information about them from the Rotten Tomatoes API, and let you know where they physically are. We'll also let users update the data from the view itself with inline editing.

01 Require and Bootstrap

Knockout is compatible with AMD (Asynchronous Module Definition) loaders like RequireJS. We're using RequireJS to manage dependencies and load Knockout files. RequireJS looks for the data-main attribute and will load 'js/app.js', which we'll create in a bit. We're also using Bootstrap for some basic styles.

```
001 <head>
002 <meta charset="UTF-8">
003 <title>Film Finder</title>
004 <link rel="stylesheet" href="//netdna.bootstrapcdn.com/
bootstrap/3.0.2/css/bootstrap.min.css">
005 <link rel="stylesheet" href="styles/aestheti.css">
006 <script src="js/libs/require.js" data-main="js/app"></script>
007 </head>
```

02 Require dependencies

To load our dependencies we give RequireJS an array of all the files (as strings) we'll need for our app to run. DOMReady is a lightweight RequireJS plug-in to make sure that our callback is only run when the DOM is ready. filmViewModel is where our view model for the film logic will reside.

```
001 //app.js
002 require(['libs/knockout', 'filmViewModel', 'libs/jquery',
'libs/domReady!'], function(ko, filmViewModel) {
003     'use strict';
004 });
```

03 Film View Model

In total our app will contain three view models, one for the film section, one for the dashboard section, and one 'master' view model which will wrap the entire document. You cannot apply bindings multiple times to the same element so we need a master one which will allow both view models to access every single part of the page.

```
001 define(['libs/knockout', 'libs/jquery'], function (ko) {
002     'use strict';
003     return function () {
004         /* filmViewModel properties and methods */
005     };
006 });
```

04 Observables in VM

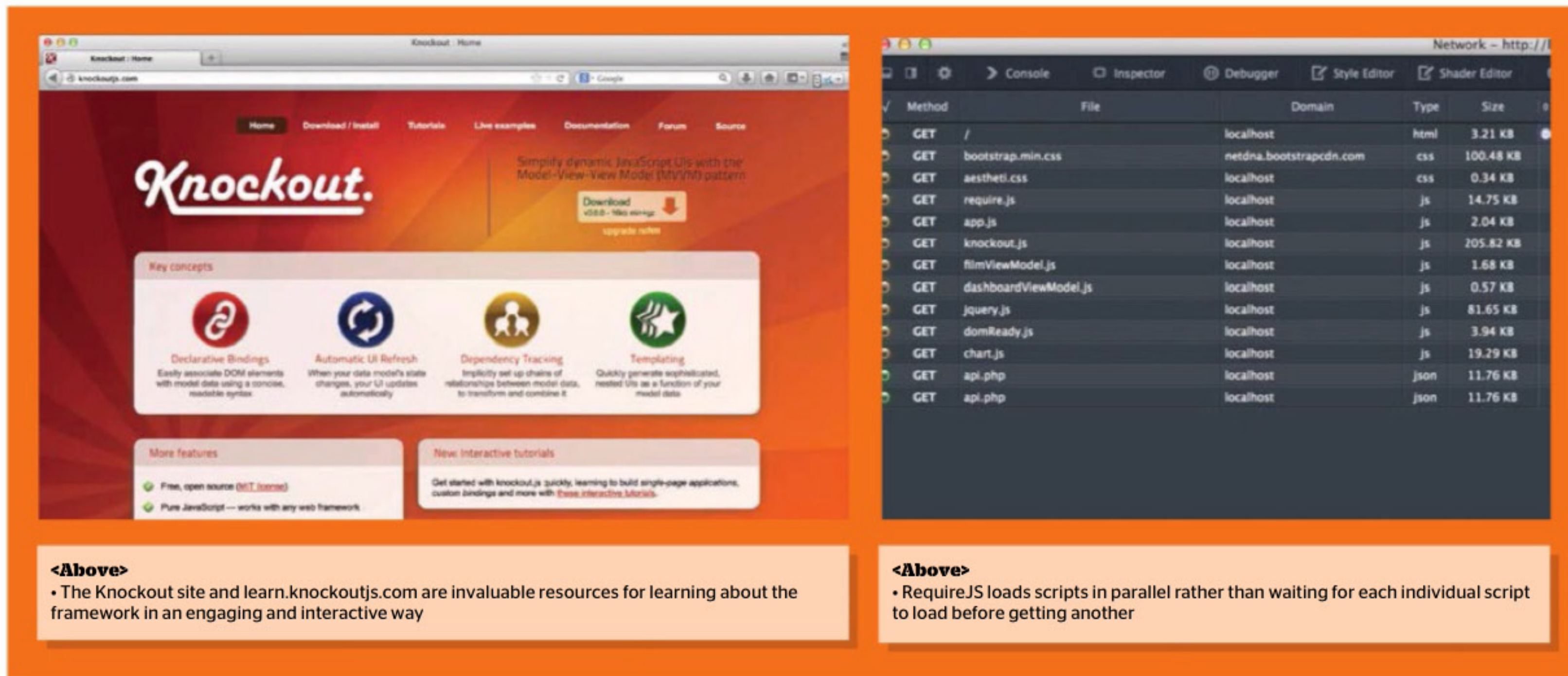
The crux of a Knockout view model are observables. Each property that we want to track we have to wrap in either ko.observableArray(), if we want to track an array, or ko.observable() for other types. We can pass a default value as an argument and we'll see the relationship between this and our view.

```
001 var self = this;
002 self.films = ko.observableArray(); //list of films
003 self.currentFilm = ko.observable({}); //current film in view
004 self.related = ko.observableArray(); //related films
005 self.query = ko.observable(''); //search box value
```

05 Get data

Here is a basic PHP service which returns a list of JSON encoded films from a database. Each film has three properties: name, owner, and location. Once this data has been retrieved we pass the data to the 'films' observable which will automatically update the view (once we've initialised it).

```
001 //filmViewModel.js
002 self.getFilms = function () {
003     return $.getJSON('api.php');
004 };
005 //app.js
006 $.when(filmViewModel.getFilms()).then(function (films) {
007     filmViewModel.films(films);
008 });
```

06 Master View Model

To instantiate our film view model we call `new filmViewModel()`. We'll then make this view model a child (property) of the master view model. We'll also add an observable called 'view', which will dictate whether to show the film or dashboard. We're also making a method that will switch between the different views, by reading the href attribute.

```
001 var filmViewModel = new filmViewModel();
002 var appViewModel = {
003   filmViewModel: filmViewModel,
004   view: ko.observable('home'),
005   switchView: function (model, event) {
006     $(event.target).parent().siblings().
removeClass('active');
007     event.target.parentNode.classList.add('active');
008     appViewModel.view(event.target.getAttribute('href')).
split('#')[1];
009   }
010 };
```

07 Apply bindings

To kickstart Knockout we have to marry together the HTML (view) with the view model. We do this by calling `ko.applyBindings()`, which takes a view model and an optional element to bind the view model to, if no element is provided then it'll bind to the entire document. Remember, you can't have multiple view models on the same element.

```
001 ko.applyBindings(appViewModel);
002
```

08 Our view

So we've called `applyBindings`, but what are these bindings? We haven't defined any yet! Knockout works by reading the contents of a data attribute called `data-bind`. As of Knockout 3.0 there are 22 types of bindings. In our navigation we're using one, `click`, followed by the name of the method to call.

```
001 <div class="page-header">
002   <h1>Film Finder</h1>
```

```
003   <ul class="nav nav-pills">
004     <li class="active">
005       <a href="#home" data-bind="click: switchView">Find
a film</a>
006     </li>
007     <li>
008       <a href="#dashboard" data-bind="click:
switchView">Dashboard</a>
009     </li>
010   </ul>
011 </div>
```

09 Page structure

We'll split the page into two sections, one that will use the `filmViewModel` and the second section that will use the `dashboardViewModel`. We can specify which View Model to use in a section with the 'with' binding. This means that we don't have to specify `filmViewModel.xyz` every time as it specifies the scope for us.

```
001 <section data-bind="with: filmViewModel">
002   <!-- next step -->
003 </section>
004 <section data-bind="with: dashboardViewModel">
005 </section>
```

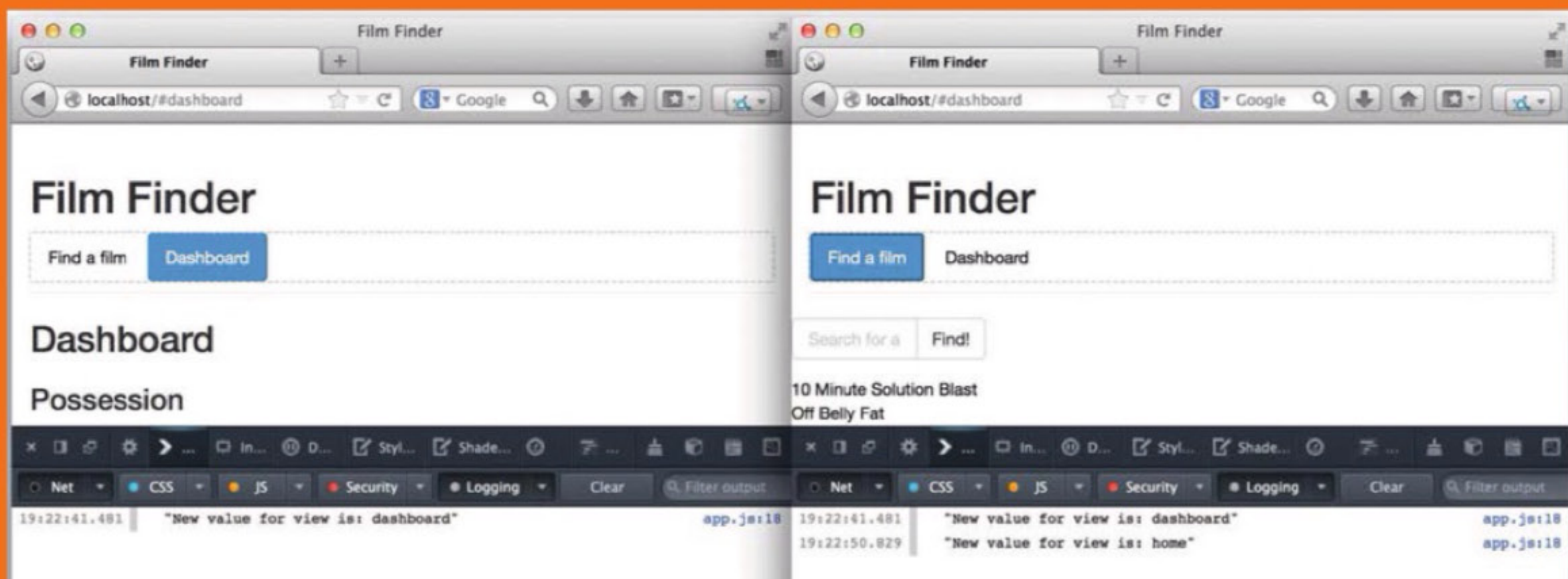
10 \$root and \$parent

Although we've just set our scope to `filmViewModel` we can still access properties of the master VM (view model) by using the `$root` keyword or the `$parent` keyword. We also have to invoke all observables to read their value (eg 'view()') instead of just 'view'). They're observables, no longer just properties, so they are to be treated as functions.

```
001 <div data-bind="visible: $root.view() === 'home'">
002 </div>
```

11 Update values

We've got a list of our films, so now we're just going to add a search box that will filter the list in real-time as the person types. This time we're using a



<Above>

- Switching between views, you can subscribe to when an observable's value changes manually by using the subscribe method

value binding, this is what is shown in the search box, and valueUpdate is which event to fire the update on the model.

```
001 <input type="search" class="form-control" data-bind="value:
query, valueUpdate: 'afterkeydown'" placeholder="Search for a
film&hellip;">
002 <button class="btn btn-default" type="button">Find!</button>
003
```

12 Filter film array

Next we're going to introduce some new concepts. A computed observable is one that watches one or more observables and returns something new when they change. Ours fires when the query observable changes. Knockout has a few utility methods, one being arrayFilter; it takes two arguments, the array and a matcher function that returns true or false.

```
001 self.filteredFilms = ko.computed(function() {
002     var search = self.query().toLowerCase();
003     return ko.utils.arrayFilter(self.films(), function(film) {
004         return search.length ? film.title.toLowerCase().
indexOf(search) >= 0 : film.title;
005     });
006 }, self);
```

13 For each binding

To display our list of filtered films we'll use another Knockout binding type, for each. This loops through an array and for each item in that array it'll show the markup contained beneath. For each film we'll add a click handler to get the film data from the Rotten Tomatoes API.

```
001 <div class="row">
002     <div class="film-list-container" data-bind="foreach:
003 filteredFilms">
004         <a href="#" data-bind="text: title, click: $parent.
getFilmData"></a>
005     </div>
006 </div>
```

Learn Knockout

The Knockout documentation (bit.ly/ajRyPj) is thorough and contains solid examples to help you grasp the basics and beyond, including sections to skip if you're a beginner.

14 Update observables

Knockout doesn't require jQuery but we've included it to handle AJAX requests. When you click on one of the film titles, it passes the observable first and the event second. We're also using jQuery's extend() to merge the two objects so that the film data is merged with the owner and location data. We then pass this object to the currentFilm observable.

```
001 self.getFilmData = function (film) {
002     $.getJSON('http://api.rottentomatoes.com/api/public/v1.0/
movies. json?q=' + film.title + '&apikey=YOUR_API_KEY&callback=?',
function (data) {
003         var movie = $.extend(film, data.movies[0]);
004         self.currentFilm( movie );
005     });
006 };
007
```

15 Using observable values

Our data is in our view model but we're not doing anything with it in the view yet. To display that data we can use the text binding. One downside of using a data binding library like Knockout is the amount of extra markup that's sometimes needed, although Knockout's solution to this is virtual elements.


```
001 <input class="edit" data-bind="value: currentFilm().location,
enterKey: currentFilm().location.stopEditing, selectAndFocus:
currentFilm().location.editing, event: { blur: currentFilm().
location.stopEditing }">
```

24 Create Dashboard VM

So far we've only concentrated on the film view model, so let's turn our attention onto the Dashboard view. This'll show statistics on our film collection, like ownership and average overall ratings. Similar to our other view model, we'll define it and let RequireJS know what other libraries this depends on. We'll be using Chart.js (www.chartjs.org) to visualise it.

```
001 define(['libs/knockout', 'libs/chart', 'libs/jquery'],
function(ko) {
002   'use strict';
003   return function () {
004     var self = this;
005     /* next step */
006   }
007 });
```

25 Create fading binding

Jumping back to app.js, we'll create another custom binding to replace the visible binding. Instead of just appearing and disappearing, we'll use jQuery's `fadeIn()` and `fadeOut()` functions to toggle between the elements. `unwrapObservable` passes back the value of an observable if it is an observable or just the plain property if it isn't.

```
001 ko.bindingHandlers.fadeVisible = {
002   init: function(element, valueAccessor) {
003     var observable = valueAccessor();
004     $(element).toggle(ko.utils.
unwrapObservable(observable));
005   },
006   update: function(element, valueAccessor) {
007     var observable = valueAccessor();
008     ko.utils.unwrapObservable(observable) ? $(element).
fadeIn() : $(element).fadeOut();
009   }
010 };
```

26 Use fadeVisible

To use our `fadeVisible` binding, all we have to do is replace `visible` with `fadeVisible` and our different sections will fade between each other! It's still triggered by the same condition (if the dashboard is active) but there should now be a smooth transition between each view. We've also made a canvas element for the chart as well.

```
001 <div data-bind="fadeVisible: $root.view() === 'dashboard'">
002   <h2>Dashboard</h2>
003   <h3>Possession</h3>
004   <canvas id="possession-chart" height="250" width="250"></
canvas>
005   <h3>Average Rating:</h3>
006 </div>
```

27 Add Dashboard VM

The final step is instantiating and adding our third view model to the master view model. This makes all of its properties and methods available to the view. Further on down this file we've already called `applyBindings` so now

Knockout in the wider ecosystem of the web

Knockout is often compared to Angular, but by itself Knockout only deals with data binding – it doesn't try to do everything, just one thing well. Durandal (durandaljs.com) is a framework that brings together Knockout, Require, and jQuery to provide a feature set more inline with what Angular offers. It binds together these libraries and also adds a client-side router – as well as a few other features on top. If you prefer Knockout's syntax to Angular's then this might be the technology stack for you.

Alternatively if the Knockout syntax and mannerisms don't quite sit right with you then you may instead be interested in the Knockout Punches plug-in (available from github.com/mbest/knockout.punches) which brings a double-brace template (`{{ property }}`) and a filter syntax closer to Angular's and Knockout 3.



Wide browser support

Impressively, Knockout supports every browser down to IE 6 and is only 16kb compressed, making it ideal for lightweight mobile and even legacy projects.

it'll include the dashboard view model bindings as well. You could go on and on like this, keeping view models separated.

```
001 var dashboardViewModel = new dashboardViewModel();
002 var appViewModel = {
003   /* existing properties and methods */
004   dashboardViewModel: dashboardViewModel
005 };
006
```

28 Is Knockout a knockout?

Knockout can initially be a little overwhelming with its confusing terminology and having to wrap everything in special functions. However, once you understand the implications of doing it and how to access the values afterwards, it becomes a lot clearer. We've seen how powerful it is keeping dependency chains updated instantaneously. If you've got a complex app with DOM manipulation that could be solved by Knockout, then we highly recommend that you give it a chance.

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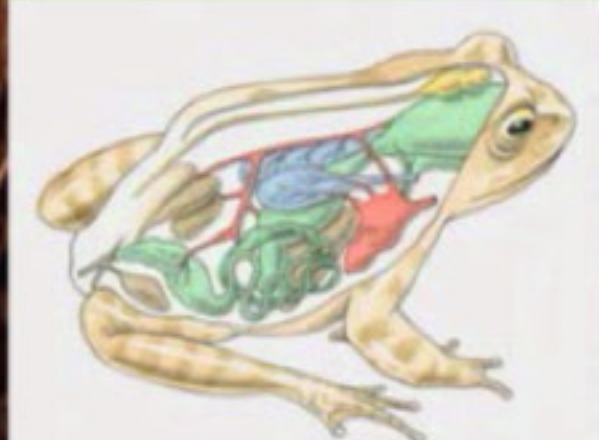
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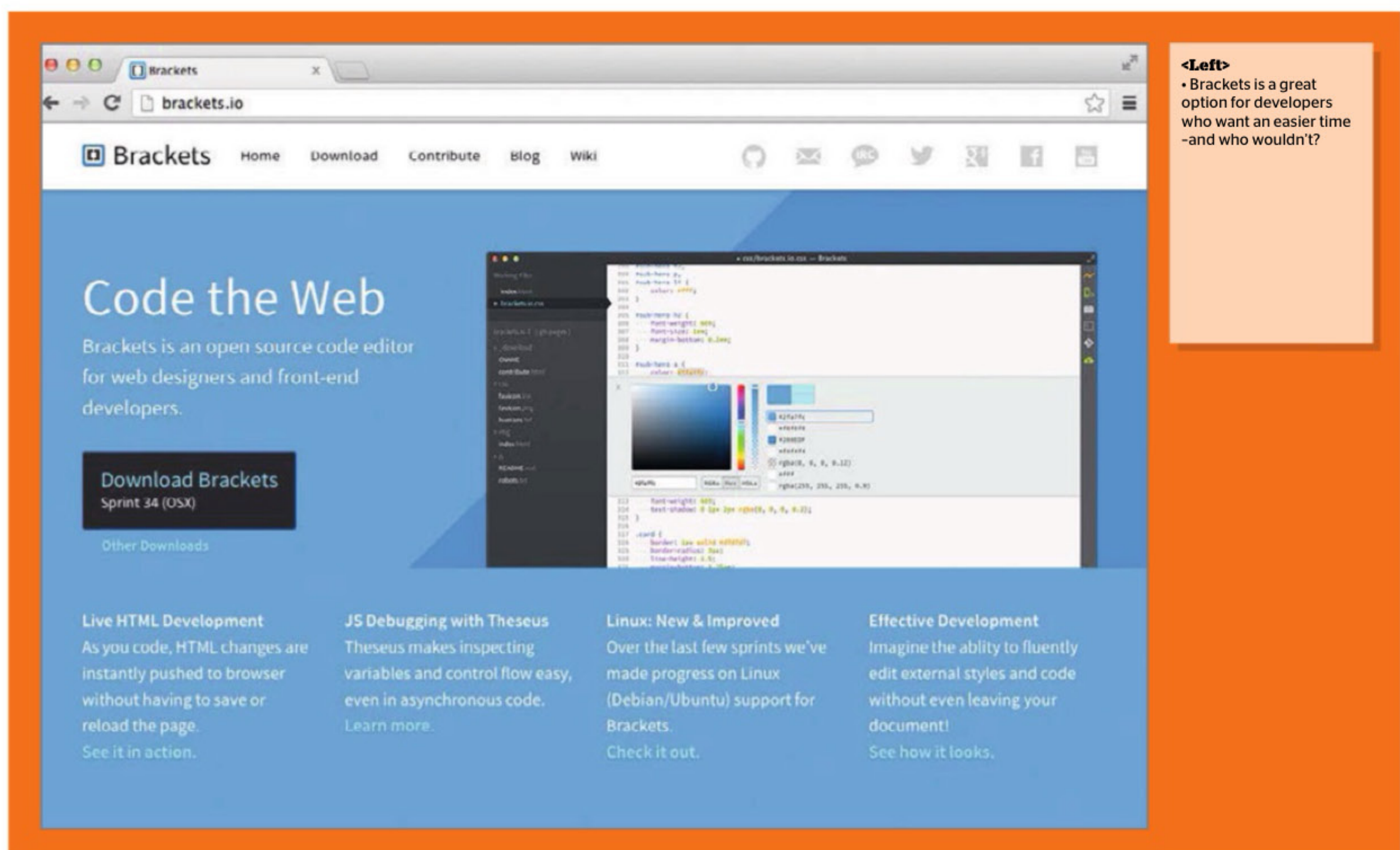
tools | tech | trends Brackets **expert** Matt Gifford



A code editor, as every developer knows, is an incredibly personal choice. We spend a good majority of our time sat at the controls of an IDE or editor and as a result it has to satisfy a number of specific requirements, namely performance, comfort and suitability for the tasks in hand. If we can choose something that can handle pretty much whatever we need from it and can be extended and personalised to suit us 100 per cent, then we can certainly be happy with using it.

Since it is so important to make a good choice, it is only right that you consider all of your options. Enter Brackets, the free open-source code editor from Adobe. Developed using web standards and HTML, JavaScript and CSS, Brackets was actually built using Brackets and is a superb choice for developers everywhere who need something that makes their life much easier.

In this tutorial we will walk through the installation process as well as covering JavaScript linting and extending with plug-ins – so let's get going!



“ An editor has to satisfy a number of requirements, namely performance, comfort and suitability for the tasks in hand ”

01 Download Brackets

Let's download the latest copy of Brackets from the website. Head over to download.brackets.io to get a copy of the editor for your operating system. As of writing, the current version is Sprint 34, but new versions are released on an approximate cycle of every three weeks, so your version may differ.



02 Install and power up

The Brackets installation is easy and straightforward. Once complete open the application, at which point you will be greeted with an incredibly simple and clean layout. One of the benefits of using this tool is the lack of distraction from extra navigation and menu items or IDE panels that clutter the workspace.

03 Instant help

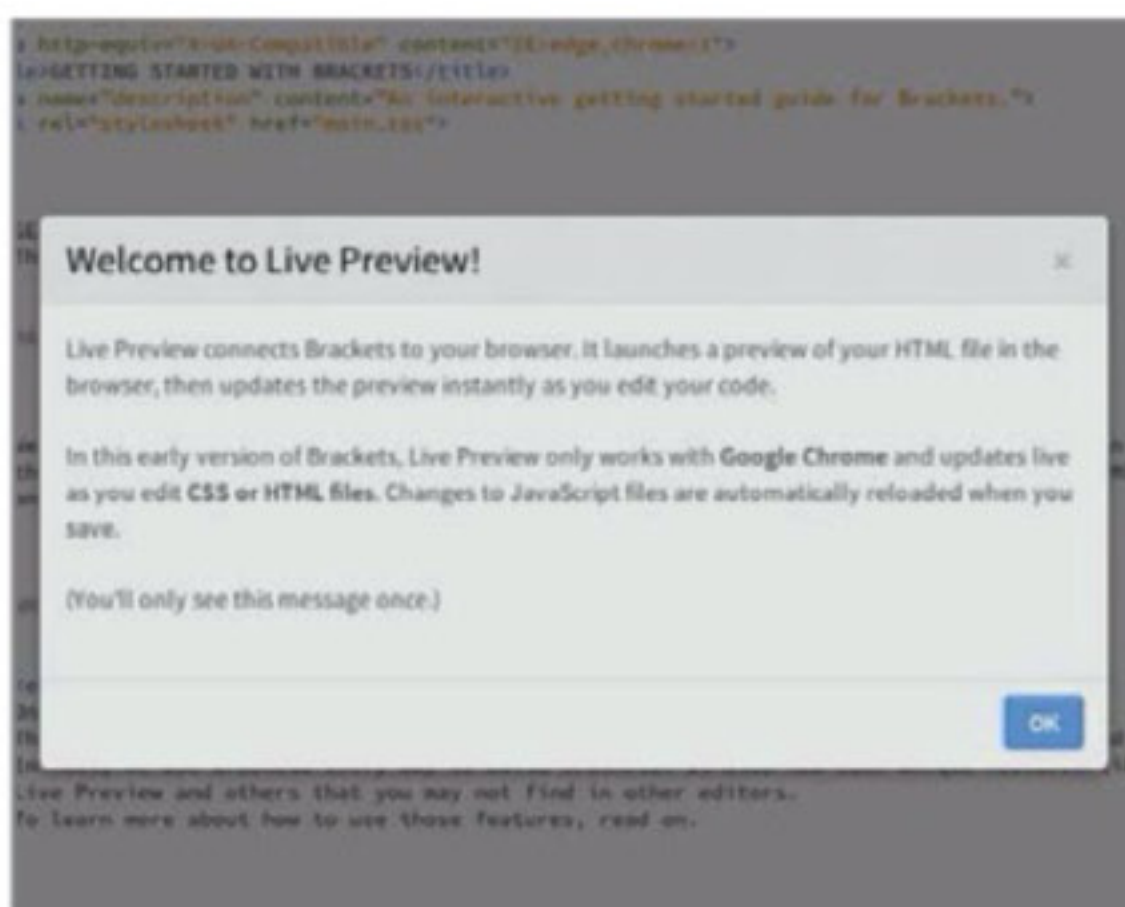
When you initially launch the editor, Brackets will load a default 'project' which serves two purposes. The first is to show you how it organises and manages files within the workspace environment; a single-click selection will load the file to edit. The second is that the HTML file is the basic 'Getting started' guide for the release.



04 Image management

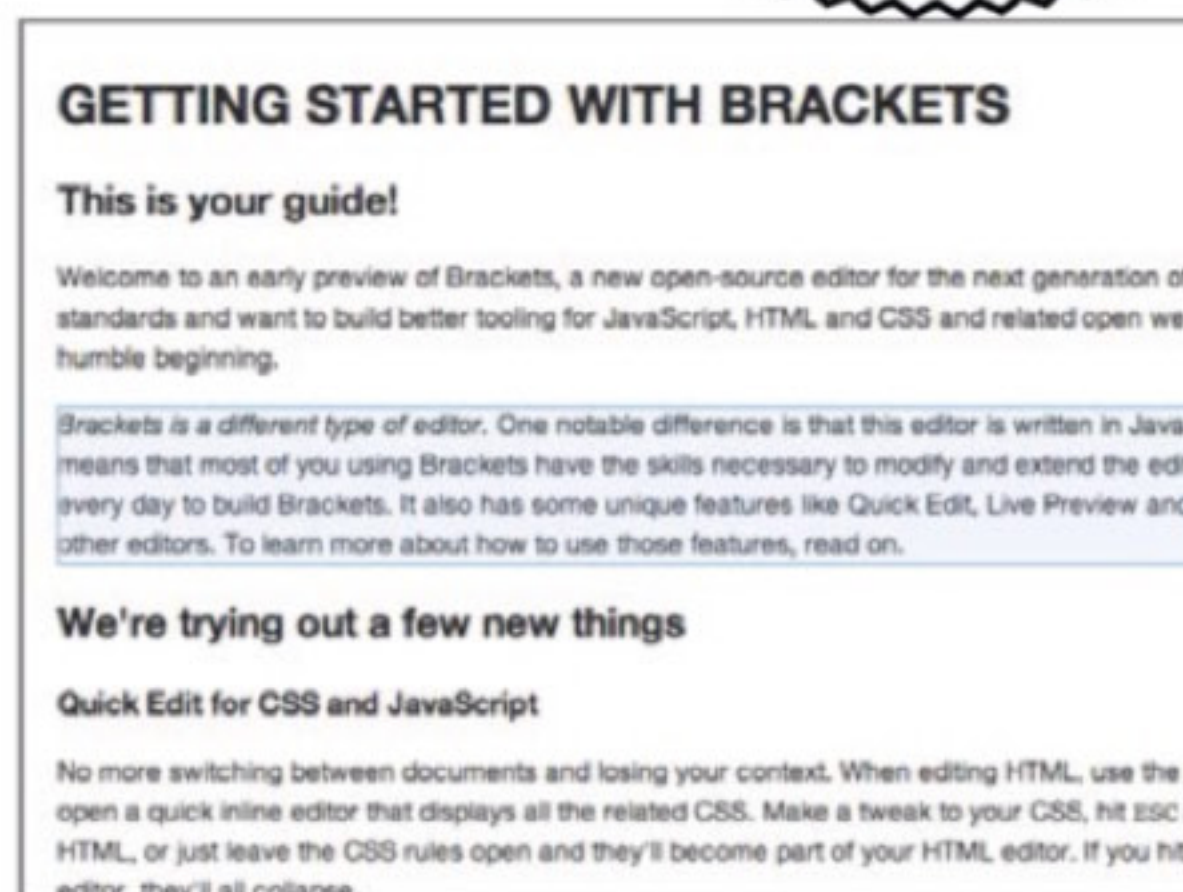
To assist with focusing on your design and development processes within the editor, Brackets is packed full of useful hidden gems and features. One of these lets you hover your cursor over an image tag src attribute value and a thumbnail version of the image will be displayed within a pop-over bubble. This works with data URI values too.

**No projects?
No problem**
Brackets by default has no concept of multiple projects to simplify the environment. However, there is an extension to add workspaces in to the editor if needed.



05 Live Preview

The top-right of the editor has a lightning bolt icon. With an HTML or CSS file active in the editor, selecting this will enable Live preview on the closest or selected HTML file. This will launch a debug-enabled version of Chrome connected to the editor. Any changes that are made in Brackets will be instantly updated and visible in the browser.



06 Live HTML selections

When running Live Preview, any tags selected in the editor will be highlighted in the browser for quicker visual identification, much in the same way Chrome Dev Tools displays selected elements. This can really assist you during development and debugging phases as you can instantly see the element you are working on. HTML updates will also be changed instantly.

Useful extensions



01 _____ Markdown Preview
This adds a new menu icon visible when editing Markdown files. A panel will display the rendered output of your .md file contents directly within the editor.



02 _____ PageSuck
Ever needed to copy source code from a live site? This extension will draw in the contents of a provided URL and create a new file for you to work with.



03 _____ Git Control
There are a number of extensions that manage Git processes and resources. Brackets Git adds Git control directly into the editor for a cleaner workflow solution.

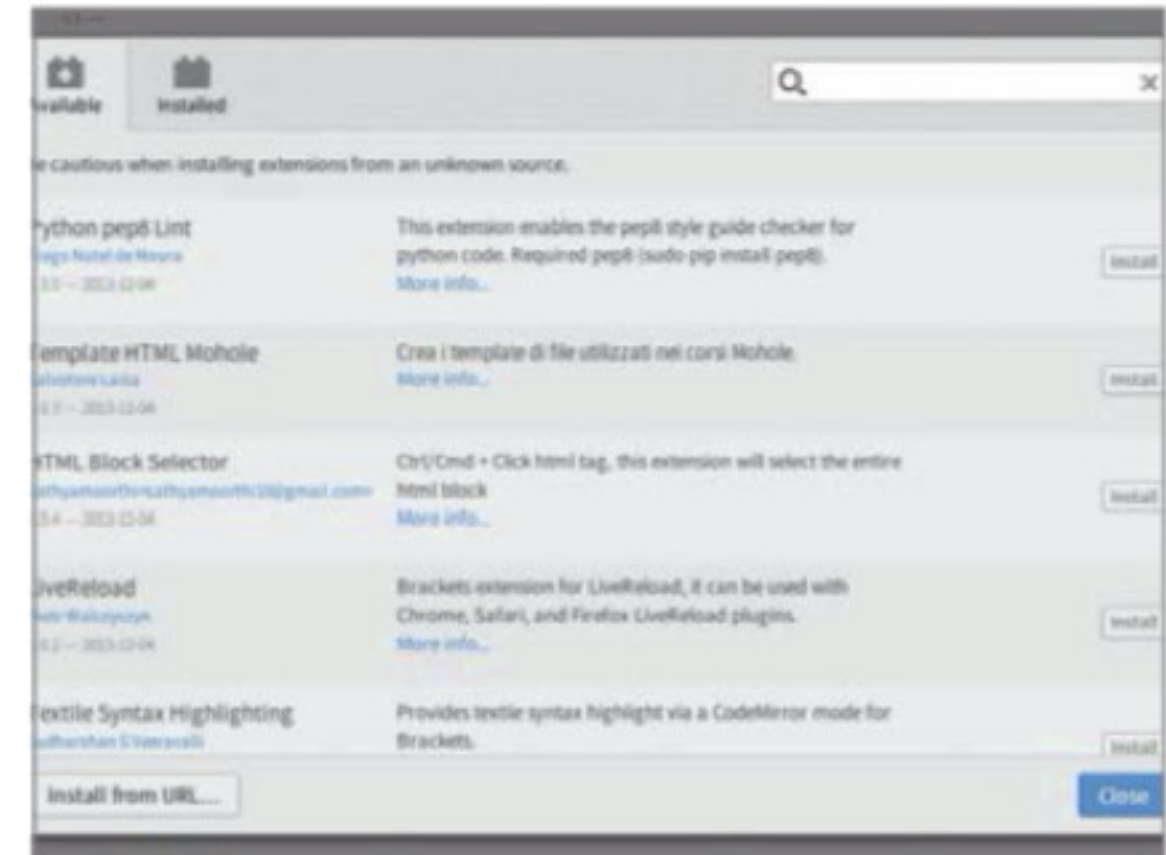
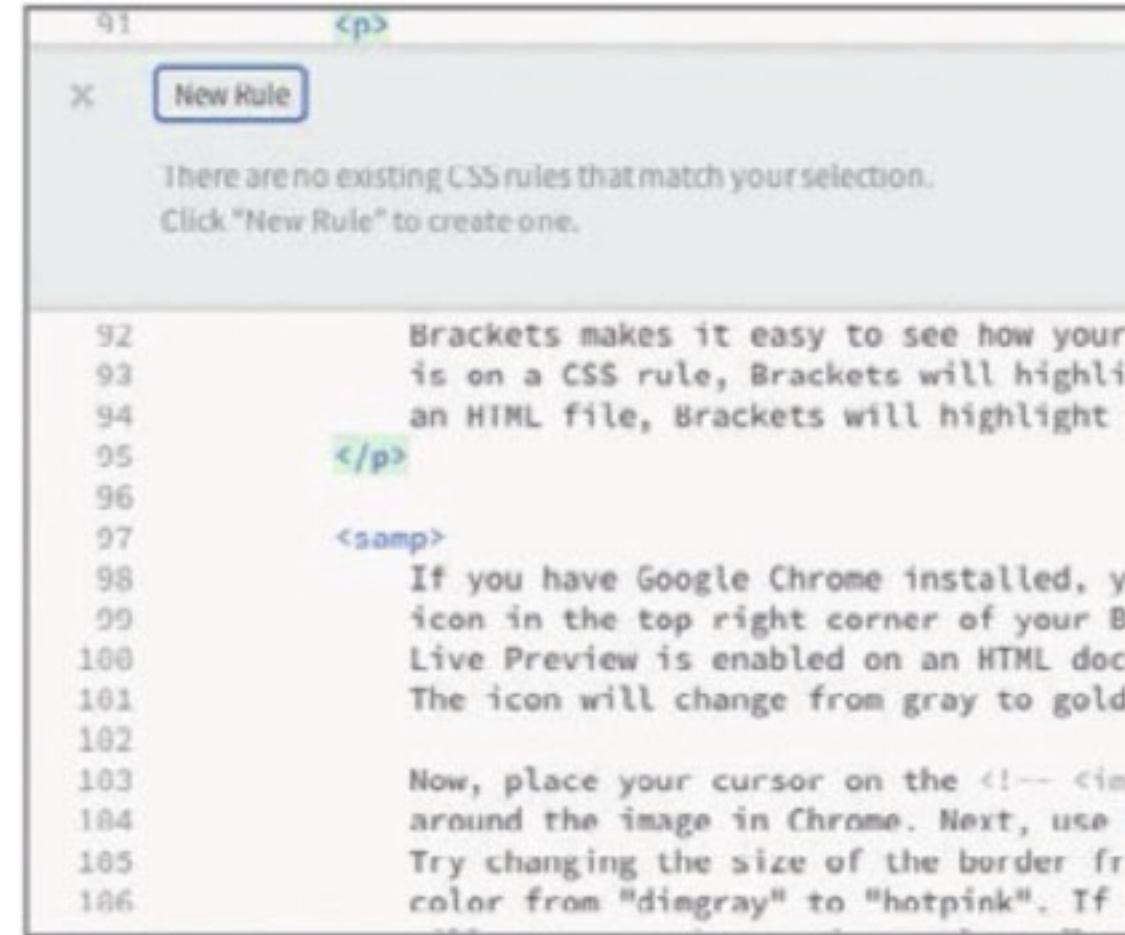
07 Quick Edit CSS

Brackets has long-provided the ability to edit CSS rules directly within the editor from an HTML page. With your cursor over an HTML element, press **Cmd/Ctrl+E** to enable the Quick Edit command. This will scan the '.css' files and find the relevant rules that match the selected element, which you can then edit without having to switch files.



08 Add CSS Rules

The very same technique can be used to add a new CSS rule to an element. Using the Quick Edit process once more, the inline display will open and you should be able to see a button element that will allow you to create a new rule, which will be applied to the nearest space in the '.css' file, once again allowing you to remain focused in the editor.



09 Highly extensible

Clicking the building block icon below the Live Preview lightning bolt will open up the Extension Manager modal window. There is an ever-growing number of free community-created extensions available to download completely free. There is no install process with the exception of clicking the 'Install' button. That's all it takes! You can enhance the editor with plug-ins that suit your specific needs.



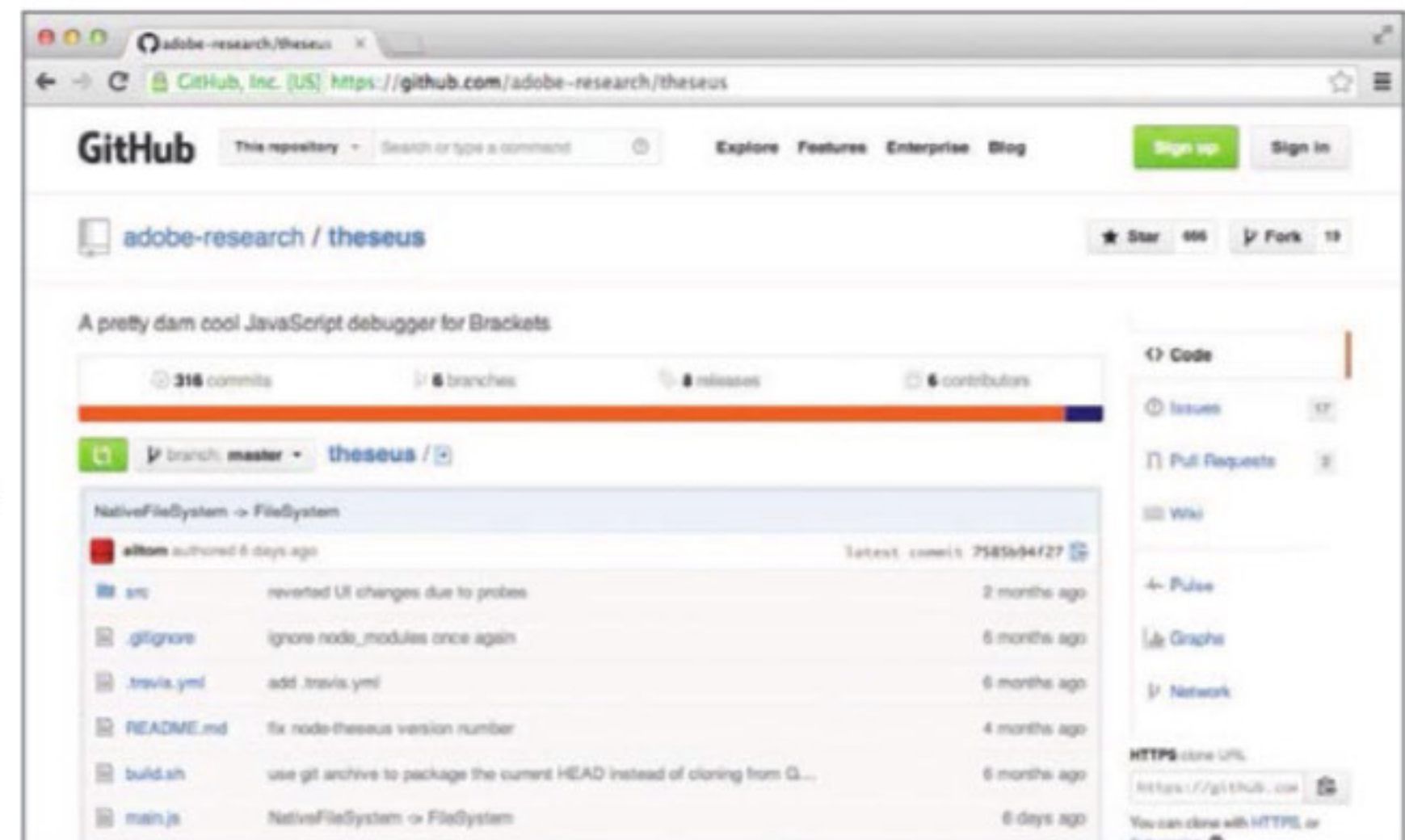
Developing extensions

Creating your own extensions for Brackets is incredibly easy. It is essentially based upon a single JavaScript file that manages the event handlers and callbacks, and taps into the core API components available. These include file system integration, menu management to apply extension menu items to the editor itself and document manipulation -and that is naming only a few.

The best way to develop an extension for Brackets is to actually build it within Brackets. While creating and testing an extension in the same editor instance is possible, it could potentially cause memory issues. To bypass this, you can open multiple Brackets windows. Use the first one to build and write the extension, and the second window to test the loaded local extension. There are some amazing resources available to help you, check out this overview for a start: monkeh.me/asjpv.

10 Theseus debugging

For anyone writing a web app using JavaScript or a Node.js application, the Theseus extension is crucial. Written by Adobe and MIT, Theseus allows you to perform retroactive inspection of JavaScript code, an asynchronous call tree and real-time code coverage as you develop using Live Preview. Check out the open-source project on GitHub at github.com/adobe-research/theseus



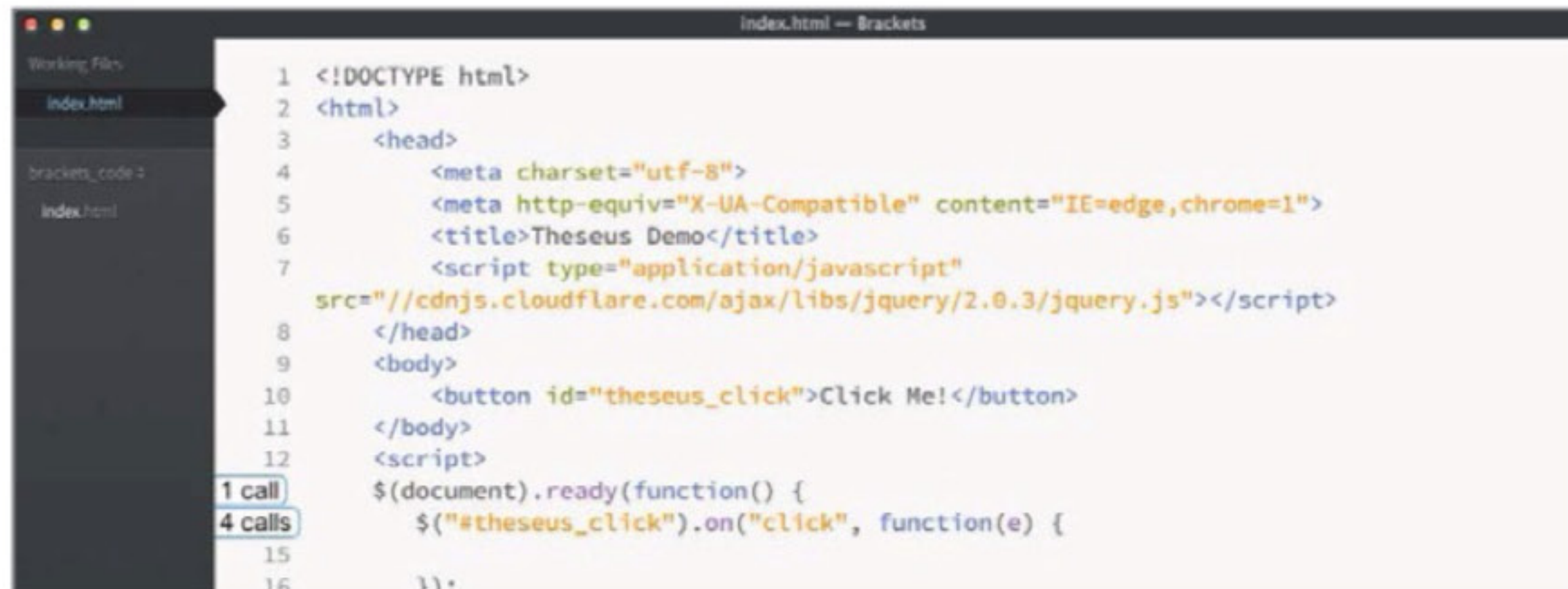
11 Theseus in action

With the extension installed and Live Preview running, let's start to add some jQuery code to the document and place a `$(document).ready()` function call. As soon as it is saved and automatically reloaded you will see updates in the left margin of the editor to represent the live callback from the code.



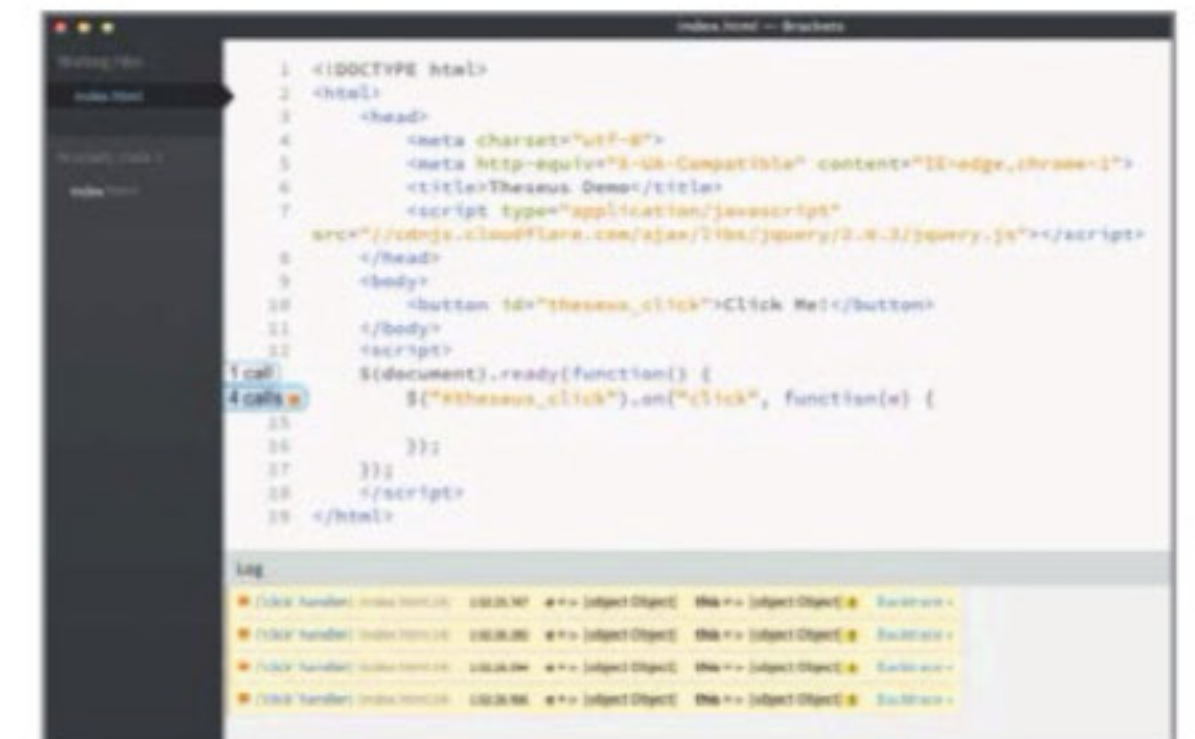
12 Multiple functions

If we continue to add JavaScript functionality within the script block we will start to see how Theseus works in a little more detail. Here we have added a click handler to a button element. Once saved, the callback count will update with every click of the button, and the initial .ready function stays at 1 as expected.



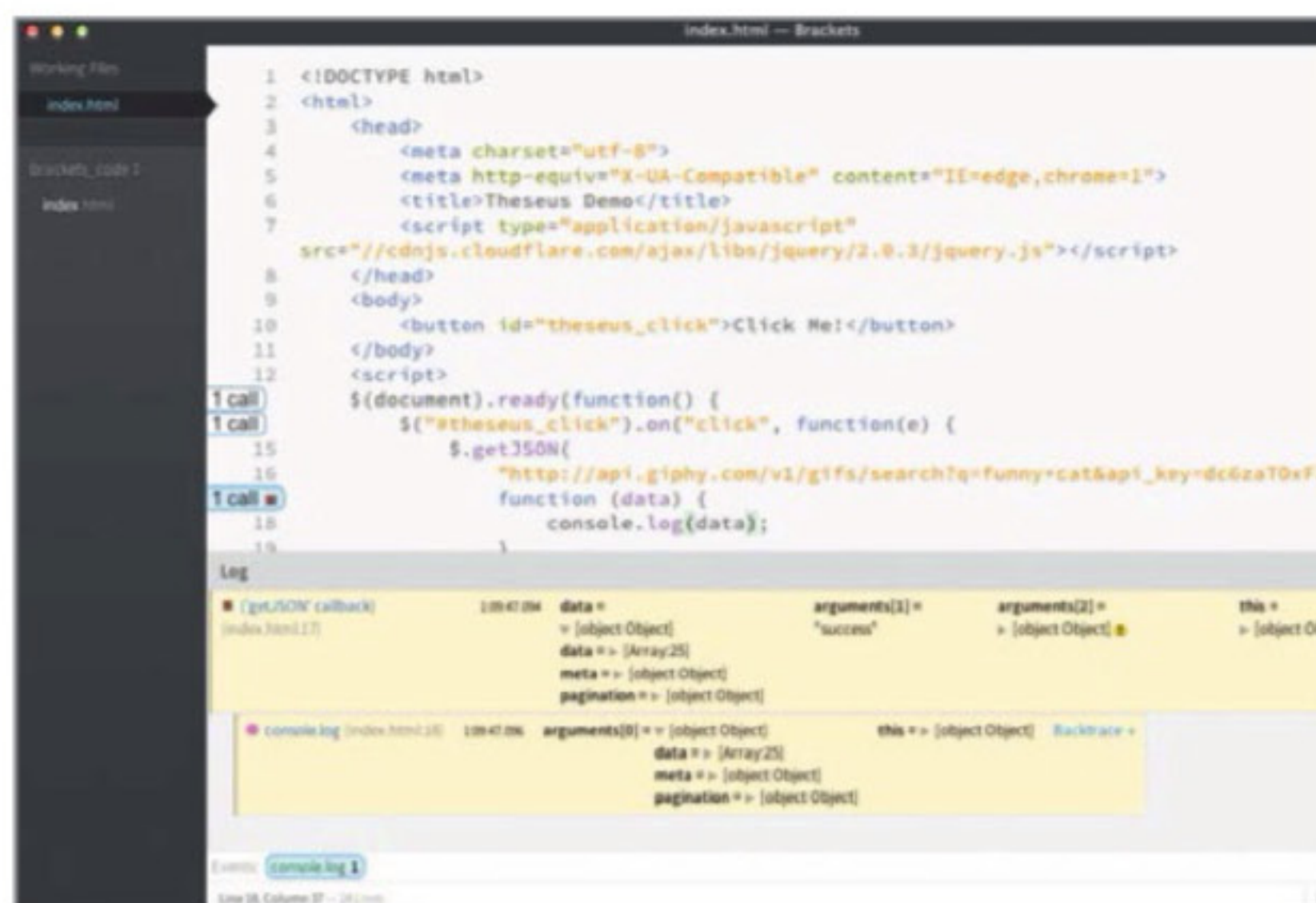
13 Inspect callbacks

The retroactive inspection feature really helps to dig deeper into the JavaScript methods in place. By clicking on any of the callback counts in the left margin, a new panel will open to display the processed code and any objects that were passed into each function call.



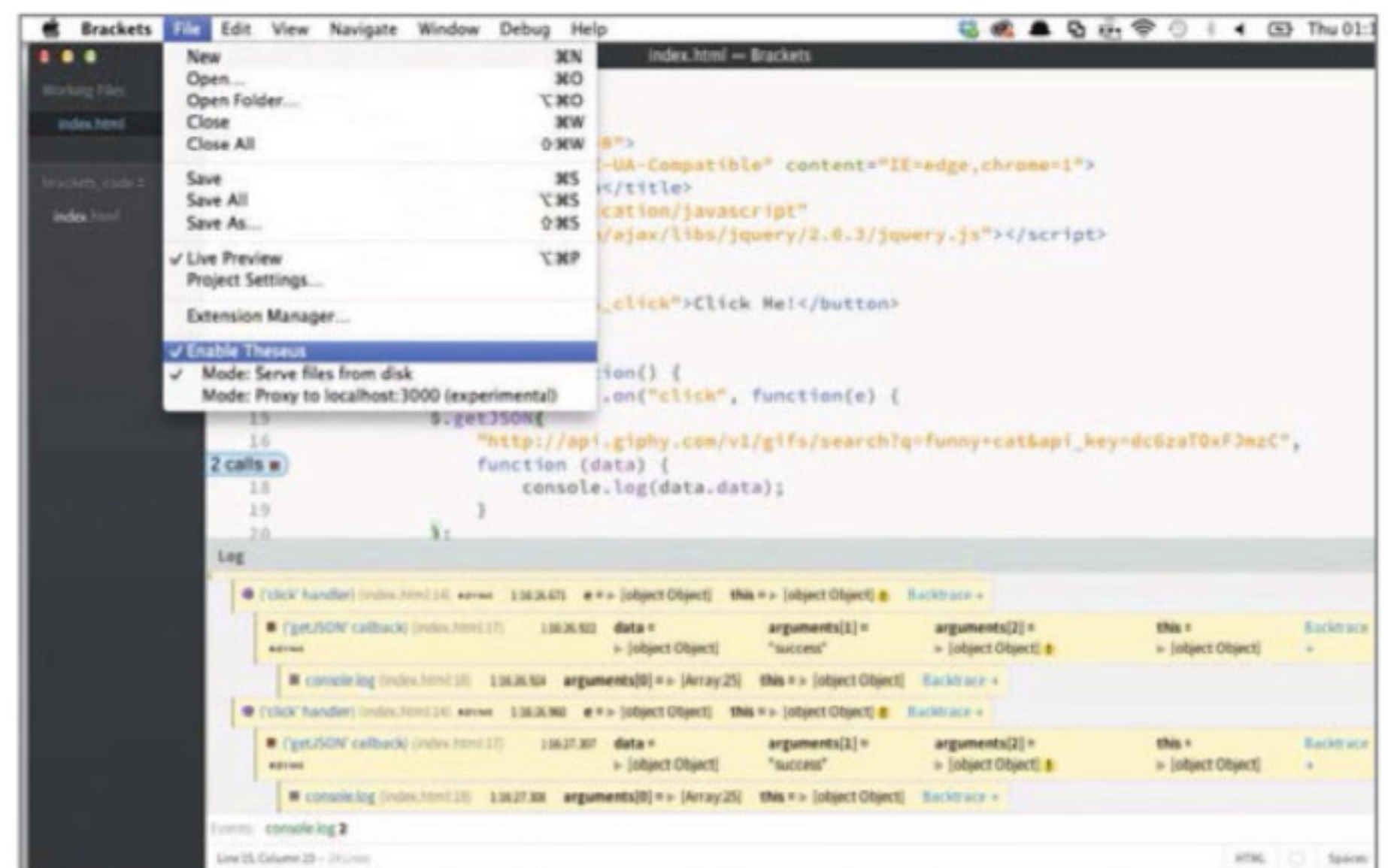
14 Asynchronous calls

Let's now add a JSON request to the click handler. This will be fired after the event, but the response won't be immediate. Theseus is able to handle this and will successfully stack any asynchronous callbacks within the log inspector panel beneath the function that initiated the request.



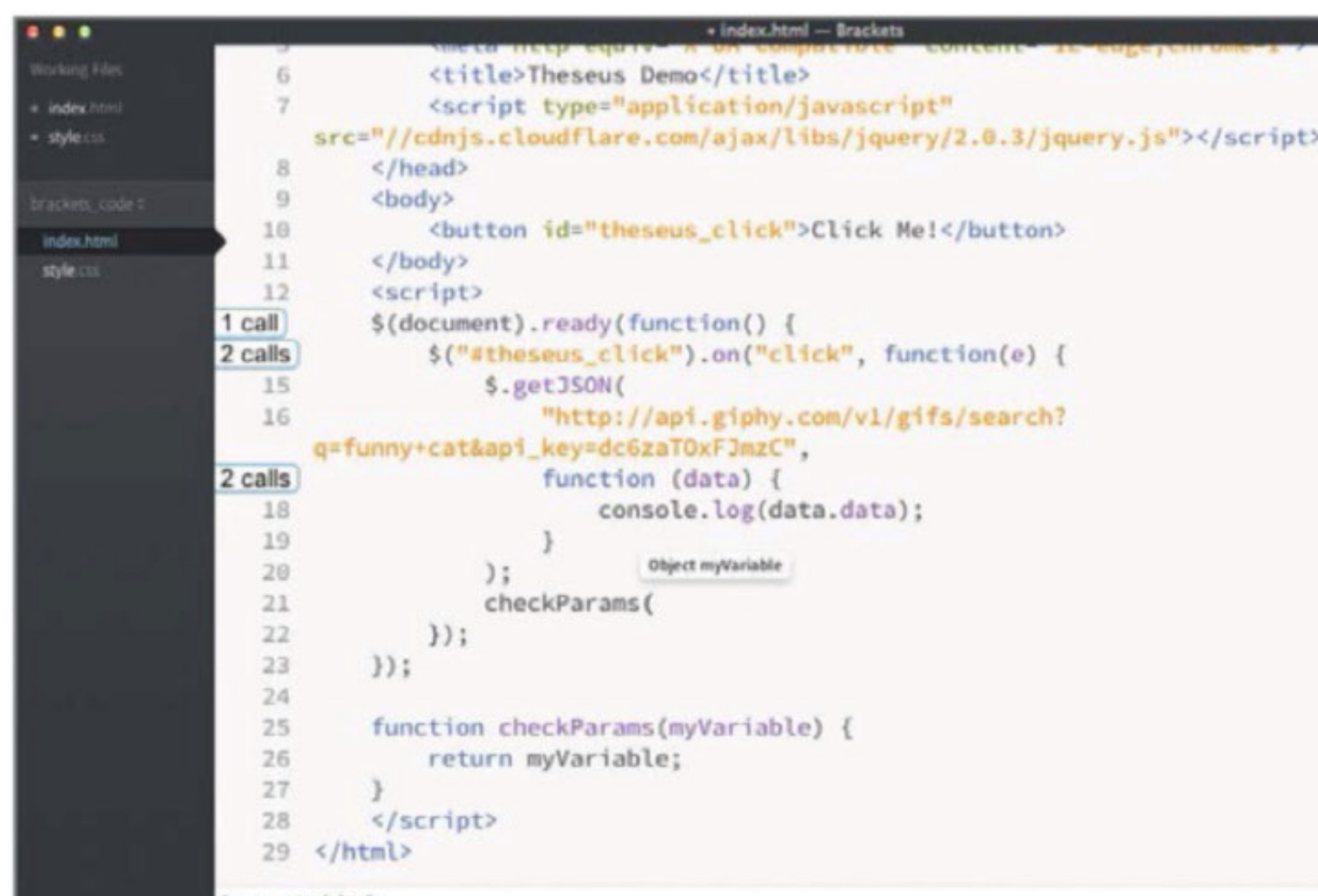
15 Enable Theseus

Should you ever want or need to, Theseus can be disabled and re-enabled easily through the File menu. As well as serving files from the local disk, it can also proxy to a proxy localhost running on port 3000. It's an incredibly powerful tool and you can expect it to be improving continuously.



16 JavaScript code hinting

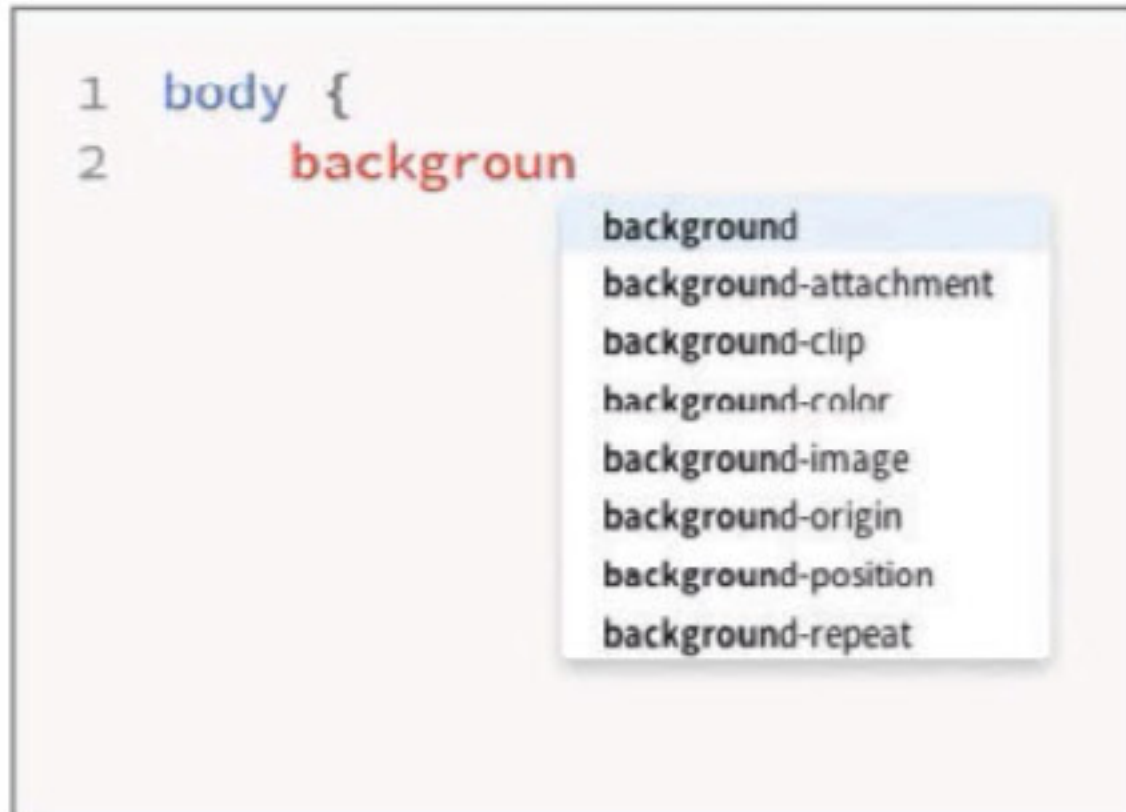
Helpfully, Brackets has been specifically engineered to assist with all areas of development, which includes providing code hinting and assistance where possible. For example, when implementing a call to a JavaScript function, the editor will highlight the code and function name as well as any parameters and their type, if applicable.



Object inspection
Theseus allows you to dig deeper into the returned objects and arguments within your JavaScript code directly within the Brackets editor to help identify and manage data.

17 CSS hinting

Code and syntax assistance is also available for HTML and CSS files. This includes help with code completion and attribute or rule definitions. Simply start typing the value and Brackets will provide you with a list of possible matches to select from. While seemingly obvious for an editor, this really helps speed up development and save time.



19 JavaScript linting

Brackets comes with a built-in JavaScript linting tool, JSLint. By default, all JavaScript files are run through the lint process as soon as they are saved. This process helps to locate any typing errors or issues with closing off functions or variables, and the editor will display a panel showing the errors and line numbers to help you fix them.



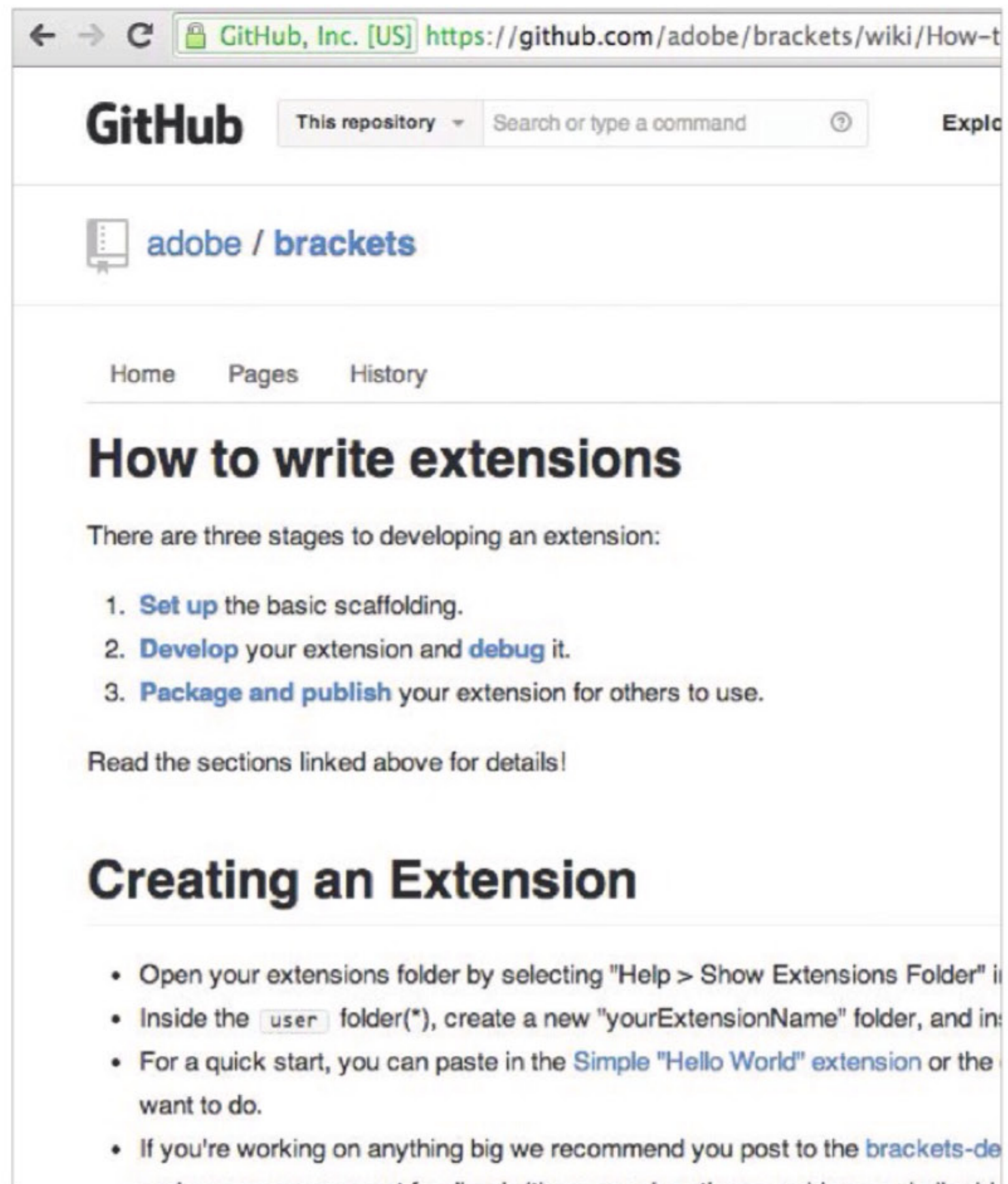
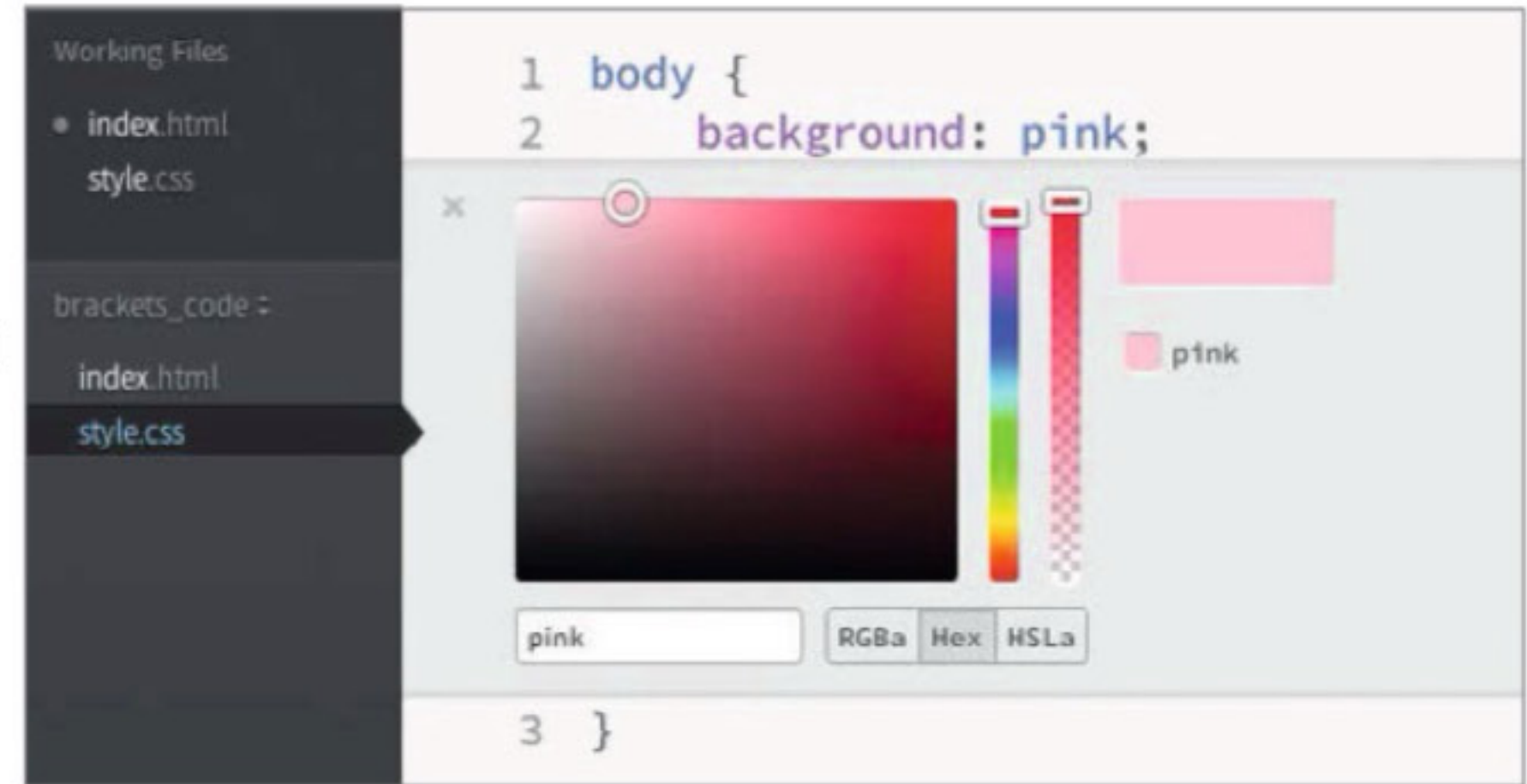
20 Alter base URL

By default the Live Preview function will start a Node web server on a specific port to communicate between the Chrome browser and the editor. The base URL can be customised if you have another port or domain to use, and this can be managed from the File>Project Settings menu option.



18 Quick Edit colours

CSS rules can also be altered using the Quick Edit function. Hover the cursor over a colour reference and receive a pop-over with the colour block. Cmd/Ctrl+E will open up the Edit feature to select a new colour from a dynamic selection tool or manual input in various formats.



21 Customise it

The Brackets Extension APIs have been heavily refactored in the later releases to give developers more power to interact with the file system and the option to harness the full power of the Node services. Build your own extensions quickly and easily and follow the detailed documentation available from github.com/adobe/brackets/wiki/How-to-Write-Extensions.

🧑 While seemingly obvious for an editor, CSS hinting really saves time 🧑

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Current role Freelance web designer
Education Web design BSc (Hons) Southampton Solent University
Expertise HTML5, CSS3, SASS, jQuery, WordPress, Sublime Text 2, Adobe Photoshop and InDesign CC
Clients Black & White Records, Draxter Server, Rob Coker, Dragon Cricket School
Twitter @alexjpate

Alex is a 19-year-old web designer and developer currently living in Southampton, UK. He is a second-year student, studying web design at Southampton Solent University. With a keen interest in industrial design and architecture, Alex draws a lot of his inspiration from these areas. It was a trip to Barcelona when he was younger and seeing the work of Antoni Gaudi that first sparked his creative flair.

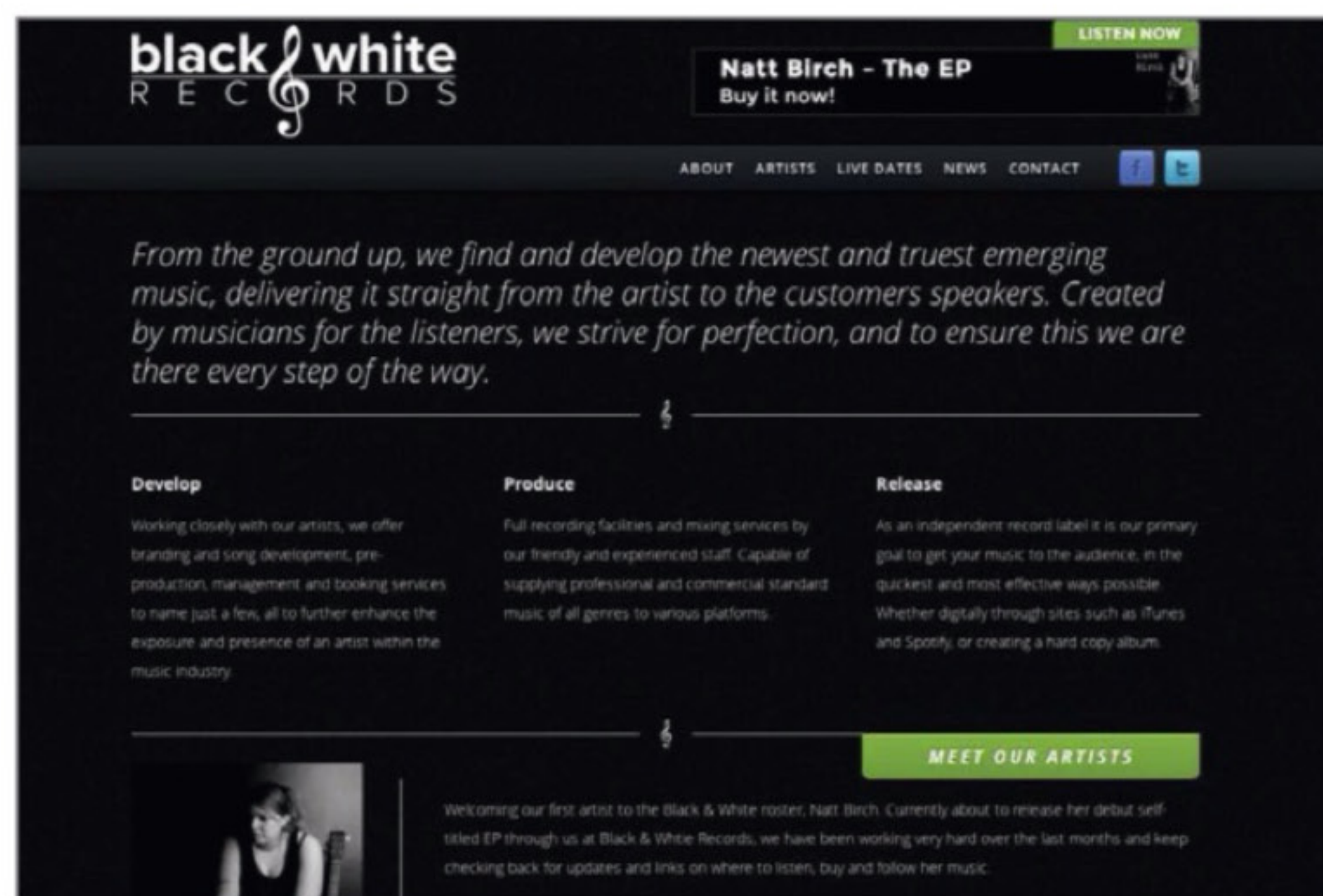
He began creating websites in 2010 when he was introduced to affiliate marketing. This hobby then grew when he began to create custom web elements that were sold to other marketers. Ever since then, he's moved on from just creating websites for friends and family and

has started to take on real-world clients, which has given him priceless first-hand experience.

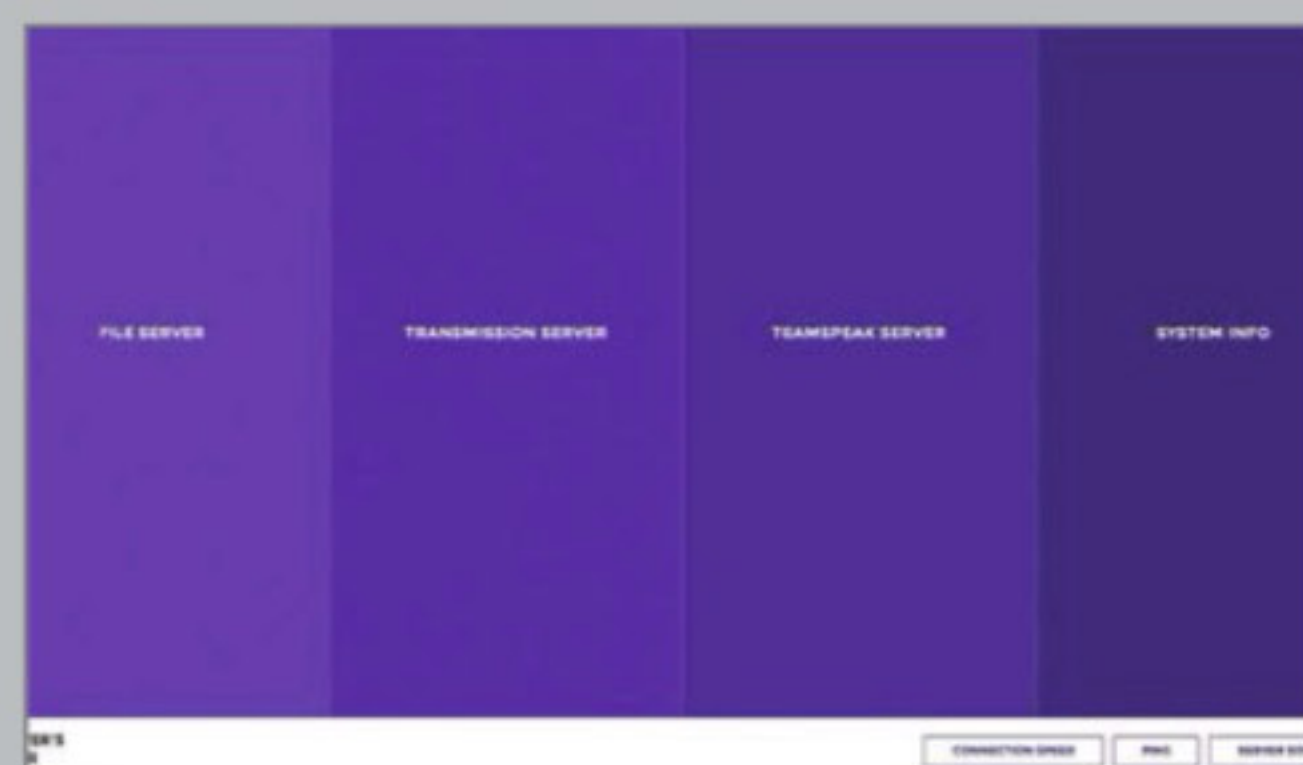
Alex has also designed for print and was commissioned to design a series of magazine adverts for the Dragon Cricket School, which were circulated around Oxfordshire.

Alex enjoys learning about and implementing new techniques, whether they be technical or graphical. For instance, he has recently developed his knowledge about Ajax and its benefits in enhancing the user experience.

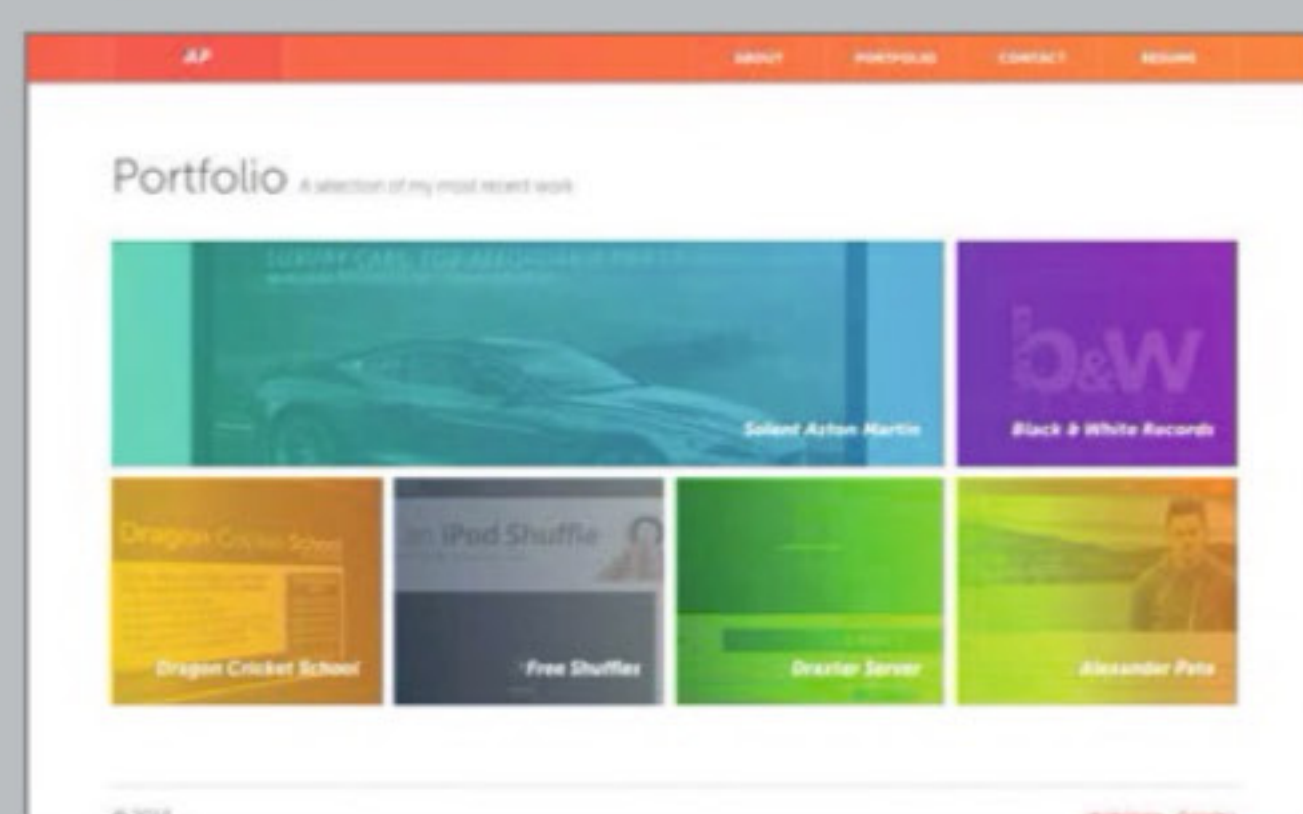
Currently Alex is working on a button library, coded in SASS, which he plans to release on GitHub. He feels that open source is a great opportunity to learn from others.



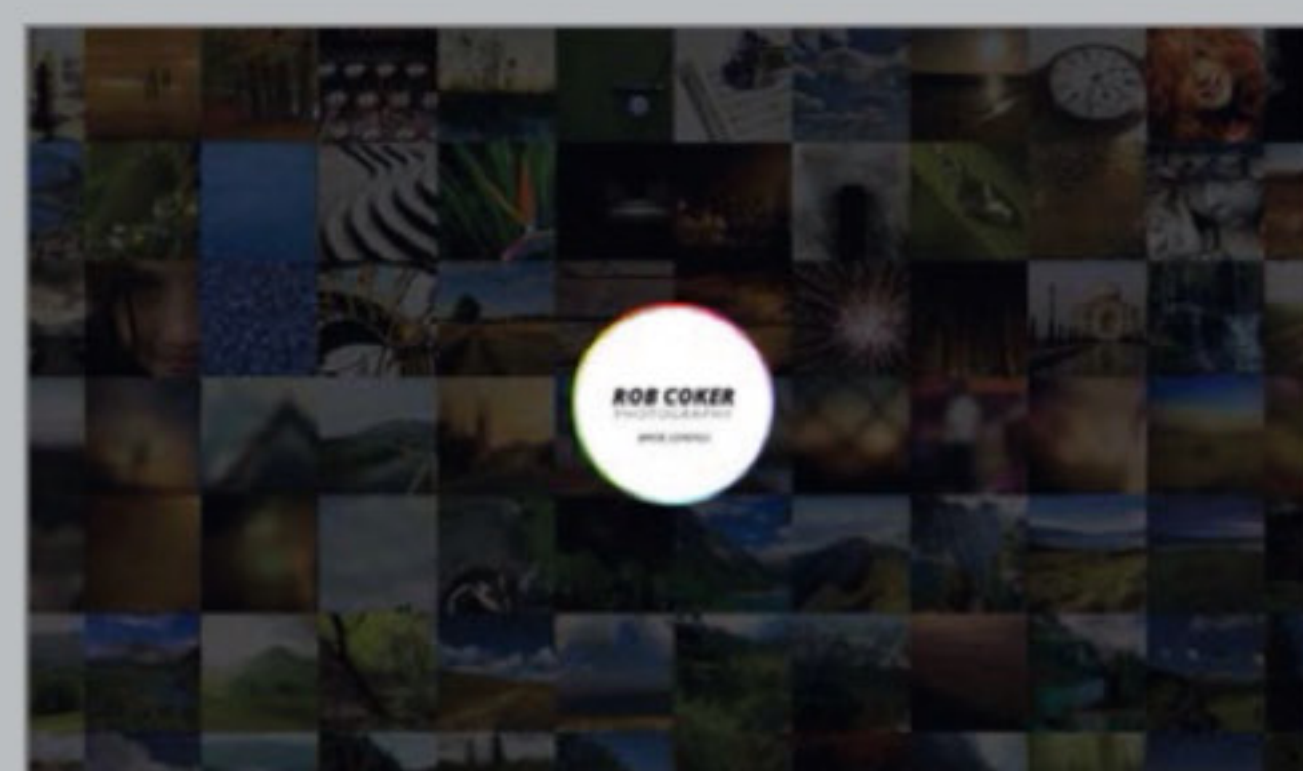
01 www.blackandwhiterecords.co.uk



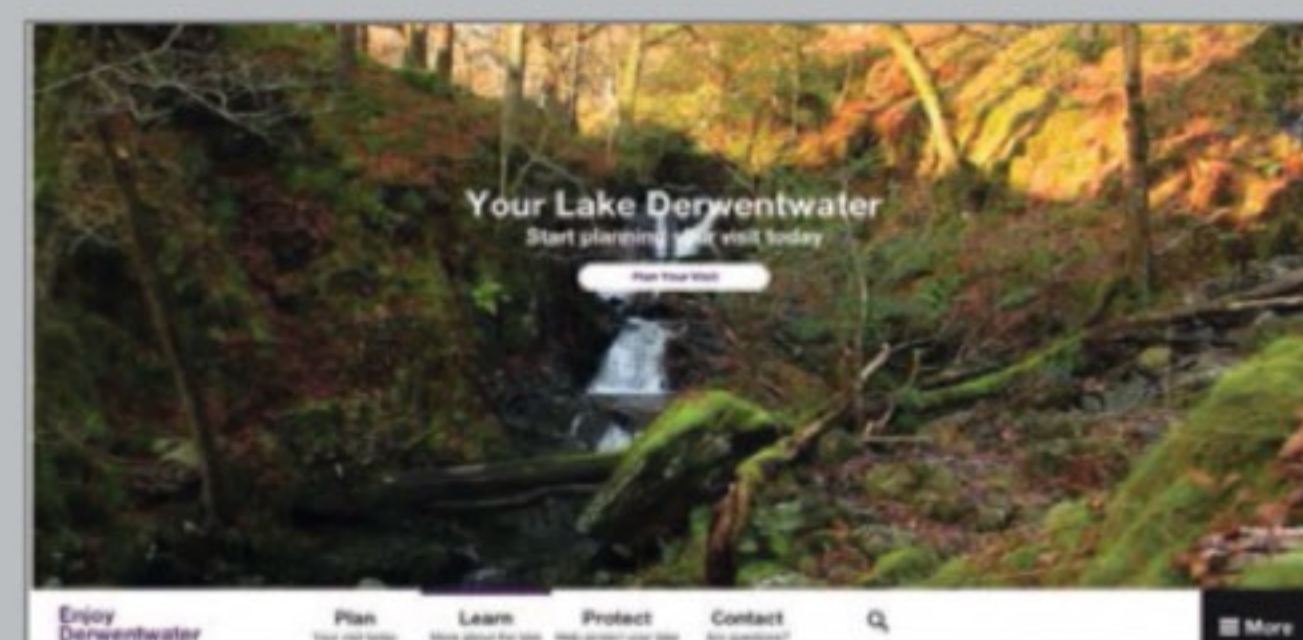
02 draxter.tk



03 ajp.im



04 www.robcocker.co.uk



05 N/A

01

The client request was a site to show the company overview. This is achieved with contrasting colours – there is also an integrated SoundCloud widget.

02

This project was commissioned as a single-page site, to act as a gateway to other sites. The basic but striking colour scheme and typeface provide a clean UI.

03

This site is built on WordPress and is also responsive. Subtle CSS gradients are used throughout, on the navigation bar as well as the portfolio page.

04

The client requested a single-page site to display his latest photographs. The site pulls the images from Flickr, so the client can add new items.

05

In order to convey the true beauty of Lake Derwentwater, a full-width video has been used. The entire site also has a white border that resembles a polaroid picture.

Mirka Voláková

web emvee.cz



Current role Multimedia design student
Education Multimedia design at International Business Academy in Kolding, Denmark
Expertise Web design, photography, HTML, CSS, Photoshop, communication strategy
Clients The Wine Lounge, Hejls Nor Løbet, Koloběžky Český Ráj
Twitter @thosetinydreams

Mirka Voláková is a multimedia design student from the Czech Republic, currently living and studying in Kolding, Denmark. She has a degree in English and Psychology, and originally decided to become a secondary school teacher. But she got struck by web design and decided to pursue that path instead.

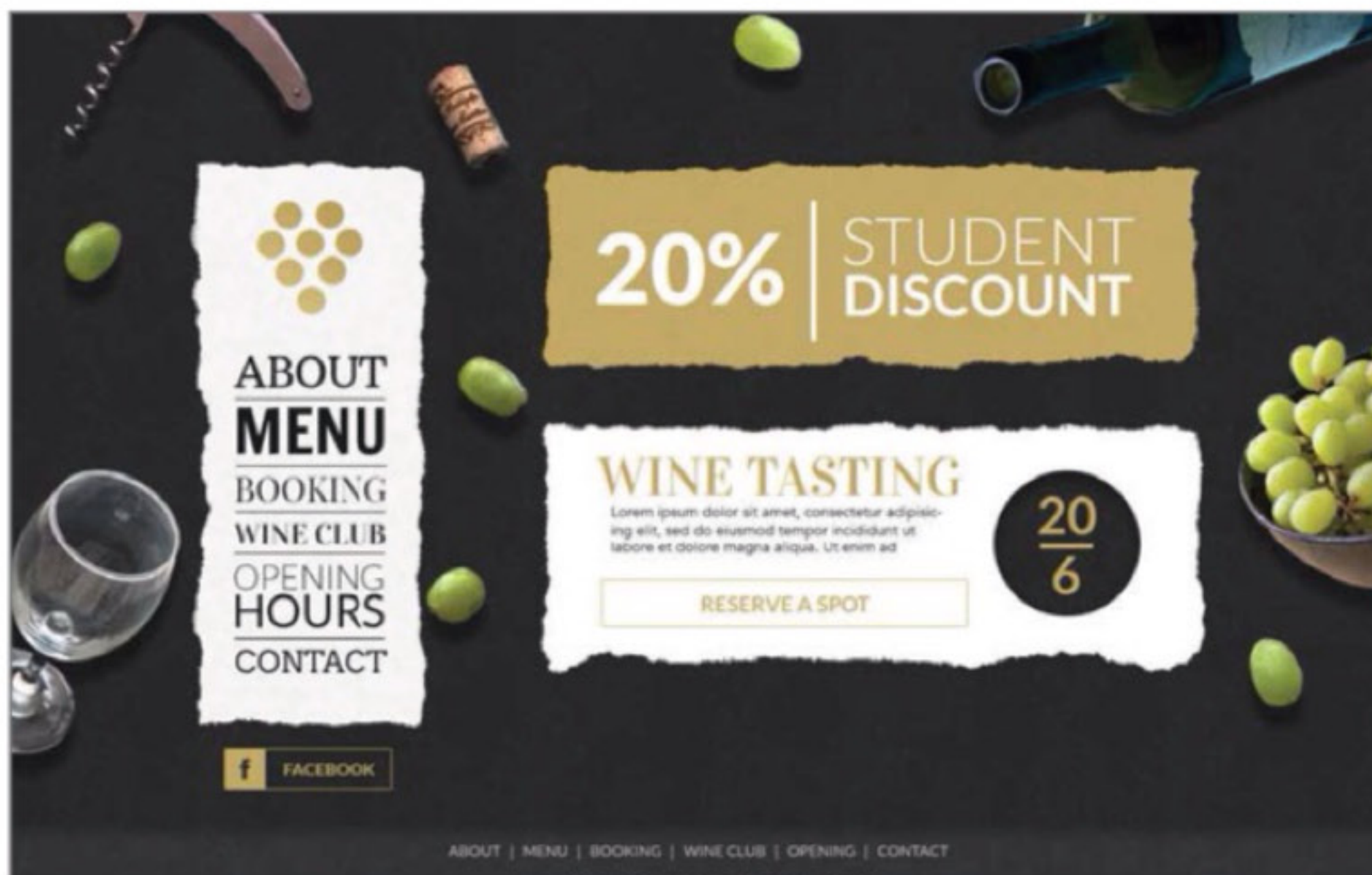
Her web design passion started with a blog but she ended up dedicating more time to redesigning the layout than writing the actual posts. Later on, other bloggers asked for her help with their designs, and that was when Mirka decided to become a web designer.

Due to the lack of similar education in her country, and inspired by a friend, she moved to Denmark and started studying multimedia

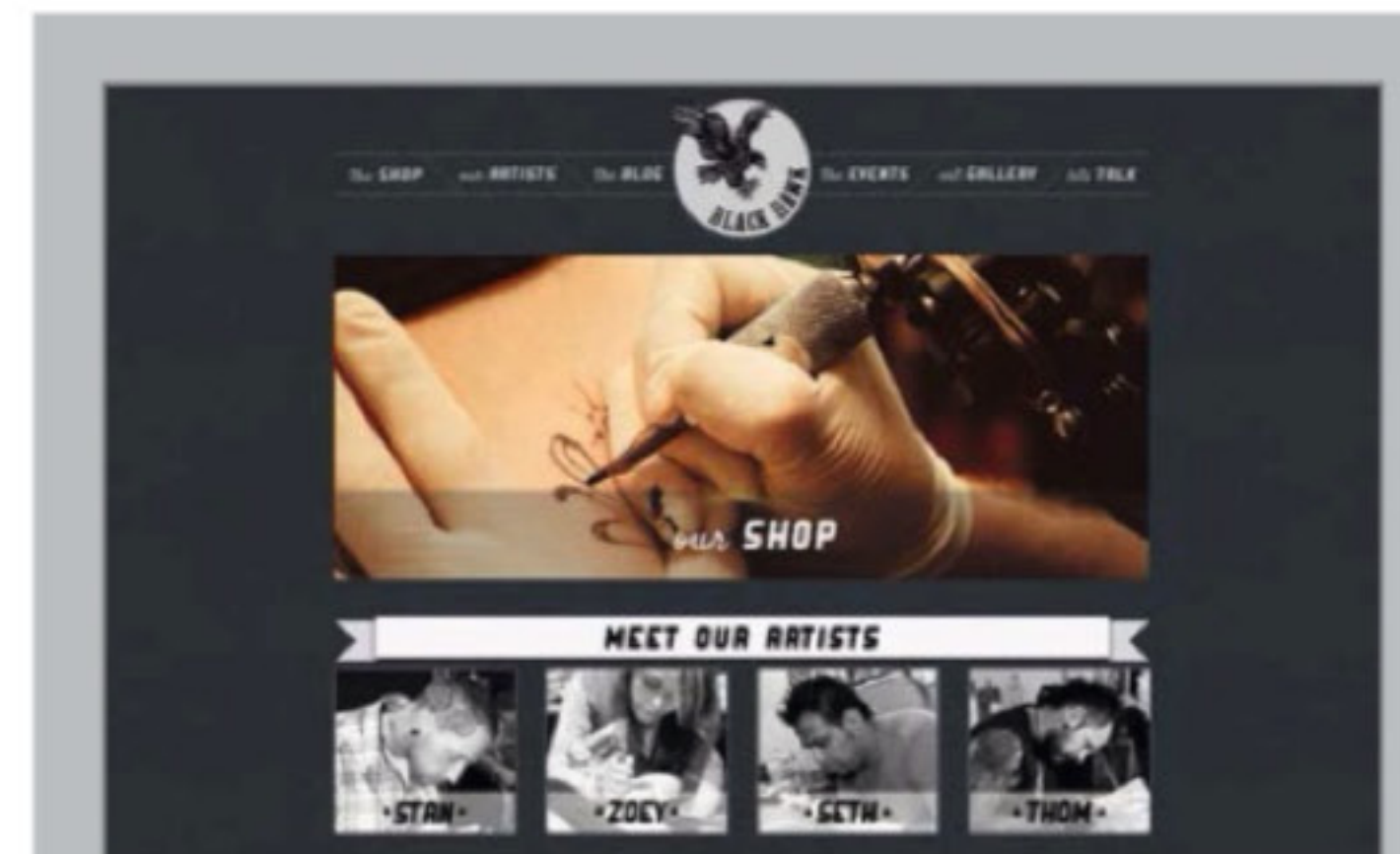
design, which allowed her to broaden her design focus. However, her biggest passion remains web design. She also loves photography, and uses her own pictures in her designs whenever possible.

She describes her style as simple and modern, with a playful edge, and likes to create contrast with subtle patterns and bold colours. She often engages with geometry in her works, and enjoys experimenting with typography.

For Mirka, web design is not just about creating pretty websites – it is a form of communication. Therefore it is her mission to not only create websites that are visually pleasing, but also ones that are as user friendly and as usable as possible.



01 thewinelounge.emvee.cz/home



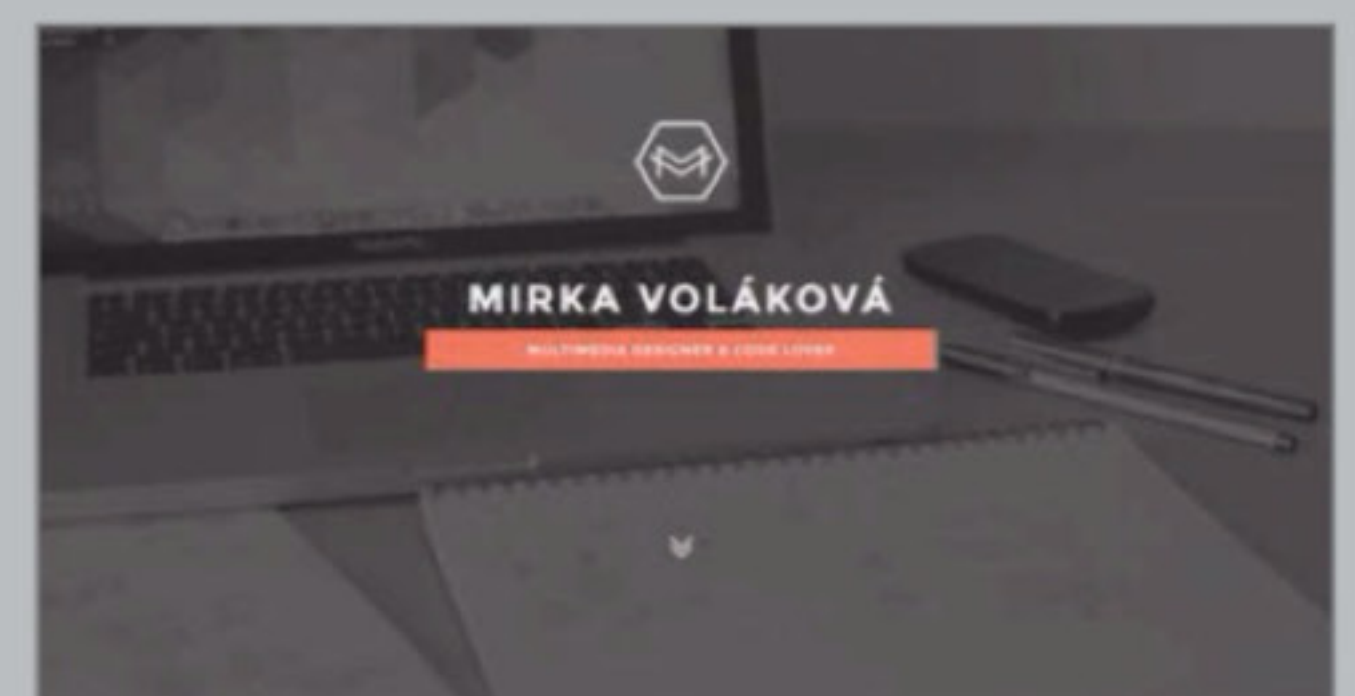
02 Mockup



03 hejlsnorlobet.dk



04 issuu.com/thosetinydreams/docs/10



05 emvee.cz

01

This is a communication strategy focused website. The objective was to attract a younger clientele through modern design, while maintaining a feel of prestige.

02

Black Hawk is a tattoo website concept engaging with both simple and unusual elements, while still maintaining the look of a website promoting tattoo art.

03

This website was created for a local race. With a wide range of participants from multiple age groups, the main goal was to make the site easy to navigate.

04

This is a personal project. It is a booklet full of tips on how to prepare a website layout, so that the developer doesn't go crazy trying to figure things out.

05

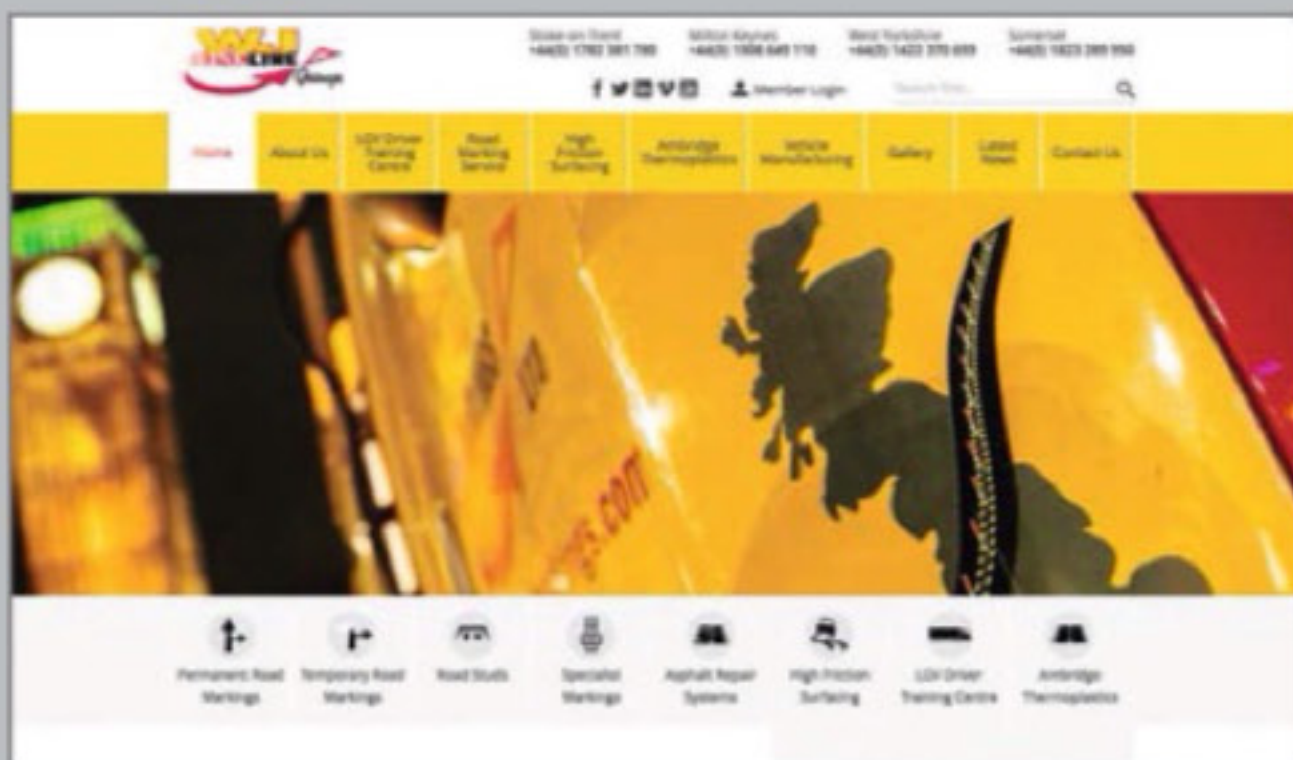
The portfolio site adopts the popular single-page scrolling stance to display Mirka's skills and style. A fixed background image is used to enhance the page.

Norddin Chetbi

web www.netbizgroup.co.uk



Current role Graphic designer
Education Print media degree, University of Derby
Expertise WordPress, Photoshop, Magento, OpenCart and custom solutions
Clients PalletOnline, The Binding Box, Primary Play, UK Bed Store, BH Bikes
Twitter @NetbizGroup



01 www.wjlinklinegroup.com



02 www.marinellaperfumes.com



03 www.euroleasedirect.co.uk



04 www.barcare.co.uk

Norddin Chetbi is part of the Netbiz Group, which is a collective of experienced creative designers and developers. They specialise in building bespoke website solutions across a variety of systems, including WordPress, Magento and Opencart as well as their internal eCommerce and CMS chassis.

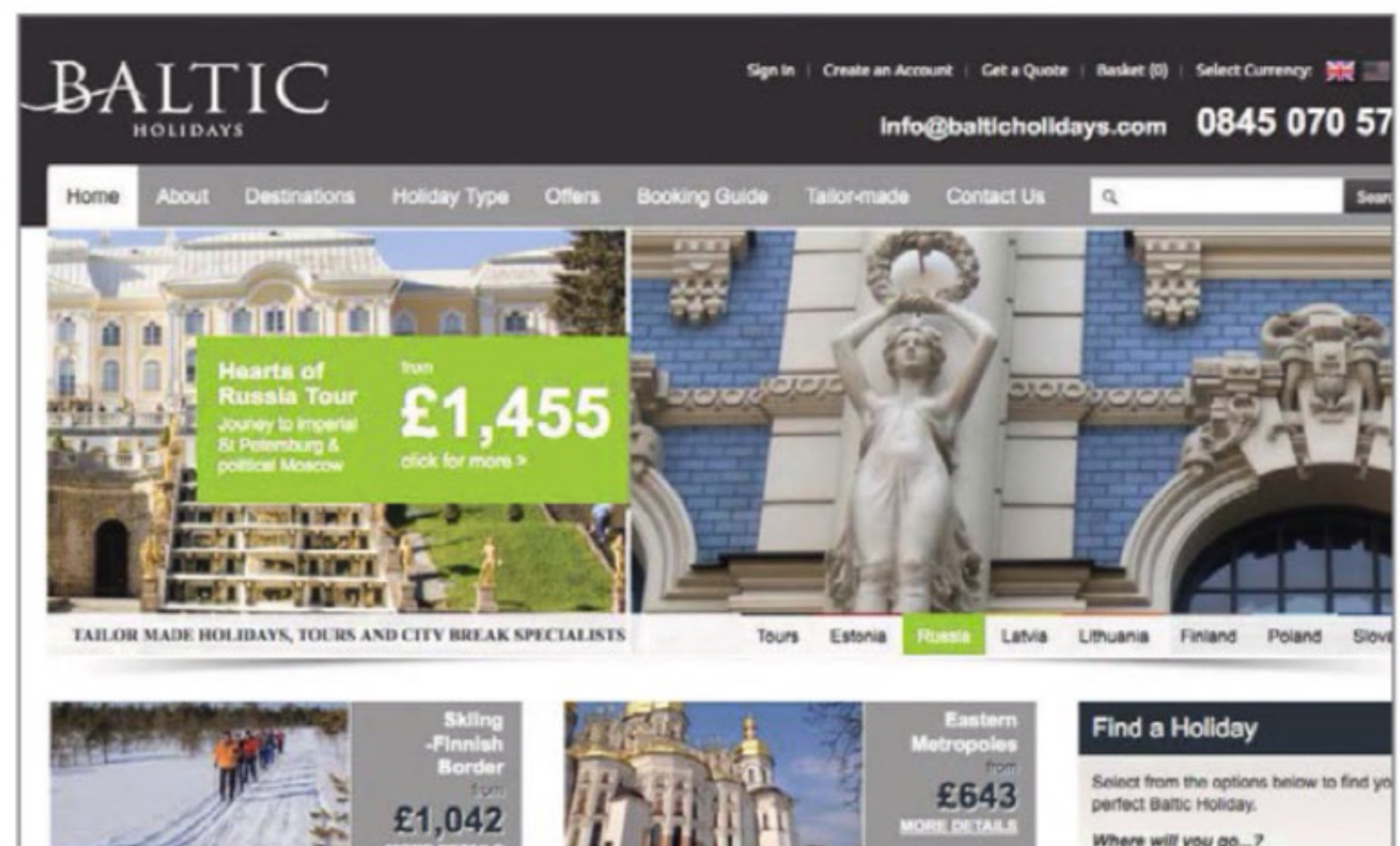
Their core skills are diverse, providing a comprehensive in-house service from design, development, marketing and SEO. They ensure the latest web trends and technologies are utilised to deliver each project but with the commercial awareness and understanding that style is always met with substance.

Personally, Norddin describes himself as a 'graphic designer extraordinaire and web designer du jour' originating from Newcastle-under-Lyme. With a long-held interest in

graphics, design and photo manipulation, Nord chose to fulfill his creative needs by gaining a degree in print media from Derby University.

Following on from working in a print company specialising in signage and vehicle wraps, his attention soon turned to all things digital, and he is now working as a graphic designer at leading digital agency Netbiz Group, where he has been for over two years. With increasing responsibility, Nord now takes the lead in design work, collaborating with clients and driving design-led projects.

With a love of parallax sites and Dribbble.com, not only is he au fait with the latest trends and web developments, his organic career growth and future plans are inspired by his family (and his newborn son Noah James!), and he is considered a key part of the Netbiz team.



05 www.balticholidays.com

01

A bespoke CMS site was called for with three former sites being put into one. This was then given the responsive treatment, and great attention to usability.

02

This site was a logistical and cross-European challenge. The overall goal was to create a visually slick site offering energy as well as functionality.

03

A sleek and informative eCommerce site; it offers a good balance of enquiries with images of the vehicles, and some quirky features to inject personality.

04

A custom CMS system allows users to add items to a wish list. A hands-off approach was the inclination of Barcare; allowing for excellent SEO and content writing.

05

A unique eCommerce site integrated with third-party holiday systems to upgrade the usability. The site uses clean visuals to stimulate consumer buying desire.

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This month we talk about whether parallax should be a thing of the past, blogging on the move and share a selection of your tweets

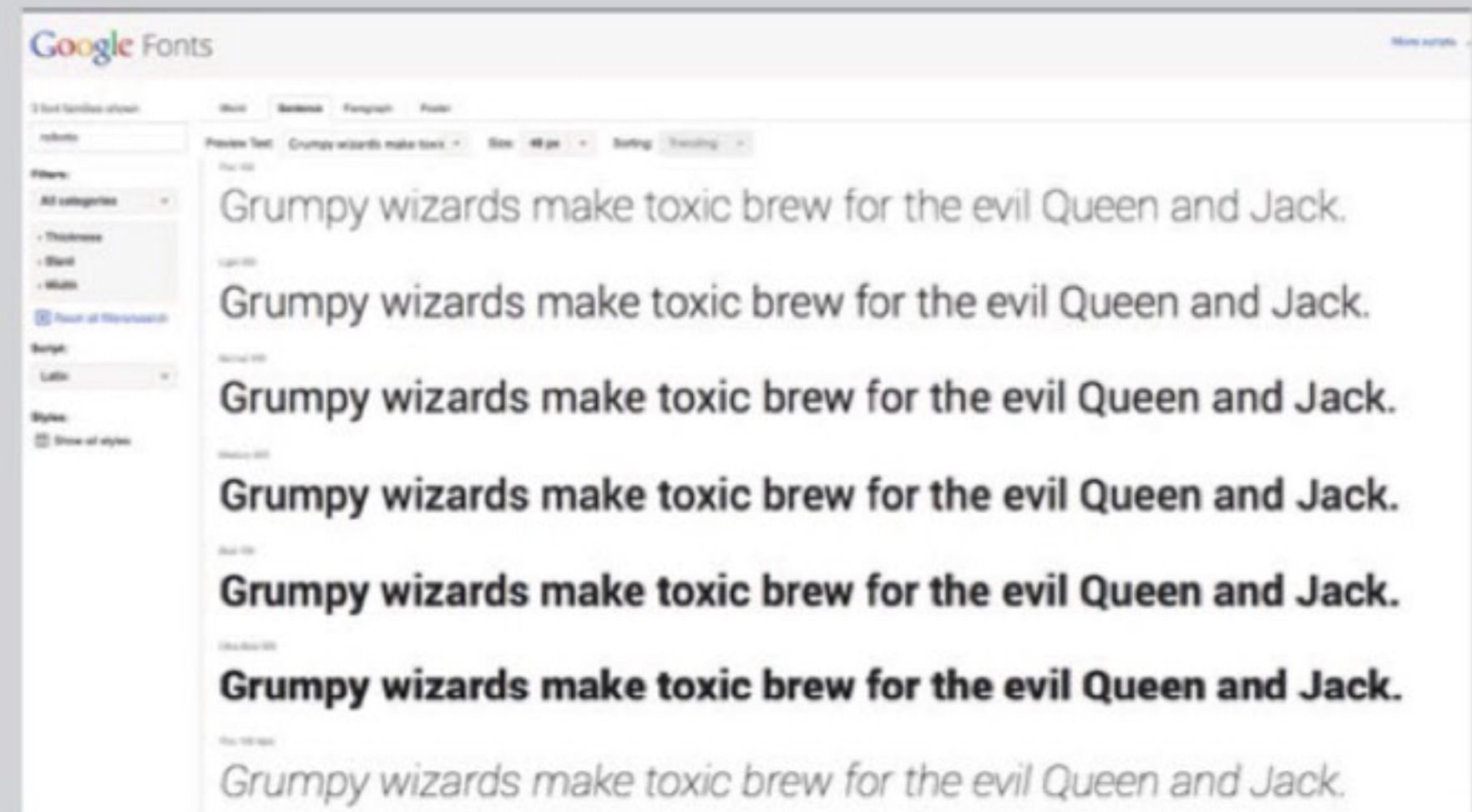
Subject The best free fonts

From Peter Thomas



I am a big fan of fonts, but being an enthusiast rather than a professional means I can't afford to splash out on the latest fonts, or the fonts I would like. For this reason I am always on the lookout for great free fonts. I know that Google Fonts has some great free fonts, but most are single styles, while I am looking for families. I would also like to find some great combos and any other sites that offer free fonts. Can you help?

Google Web Fonts is a great place to get free fonts, but as the library expands it has become harder and harder to find the perfect font. For big families we suggest the ever-popular Open Sans, Exo, Roboto, Titillium Web, Merriweather and Raleway. A few other favourites are Advent Pro, Source Code Pro, Playfair Display and Roboto Condensed.



Font Squirrel and Lost Type are also great resources for free fonts. Alternatively, why not sign up to Typekit or FontDeck for great paid-for fonts? Be sure to check out hellohappy.org/beautiful-web-type as well, it's a great site for Google Web Font combos.

Tutorials

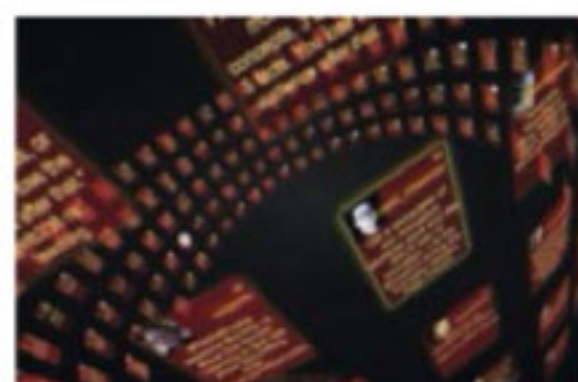
Discover the techniques to help create inspirational and interactive webpages

My Blog App

How to upload pre-made videos to Instagram
A few days ago Instagram added the ability to upload short video clips as well as mobile apps. In the same way as YouTube, you can't upload videos that are up to take the video there and then using the built-in camera.

While playing around the other day I found a way to do it though, here's how it is although I assume the process would be similar for iOS, but I haven't had a chance

Use a WordPress site to create a mobile app
bit.ly/1ga3SZc



Create a 3D tweet archive with Three.js
bit.ly/18DoBCr



Create a CSS3 shake effect
bit.ly/1iCWRLZ

Subject Is parallax past its best?

From Alex Brookstein



Design trends in web design come and go and parallax scrolling is one that has been with us for a while. Unfortunately I am not a big fan, and I've been waiting for the trend to pass, but it still seems to be going strong.

It has slowly evolved and I occasionally see good examples of the style in action - but to be honest I am fed up with seeing sites that use it for the sake of it, rather than for a purpose that fits in well with a site design. I reckon it's about time people started looking past parallax

There is no doubt that the parallax phenomenon can be seen everywhere and it is its popularity that makes it seem a little passé. Just because everyone is using it, is no reason to stop using it - just make sure you are using it well.

We have to agree there is nothing more annoying than a design trend or style being used simply because it's fashionable. The better the connection between the design and the content, then it's almost inevitable that a better site will be the end product.

We have to say that we think parallax scrolling is not going away any time soon. It will evolve and mature, getting more clever and even better - but what is the next stage? We are not too sure but we know there is someone out there already working on a twist on the obvious. We can't wait to see what it is.



@moXnesdesign

After a day of tidying and cleaning, the rest of the evening will go to reading the latest issue of @WebDesignerMag #nextgen

Subject New year, new site

From Adam Piper



The New Year has inspired me to finally give my old site a makeover. It's been a while since I last updated - nearly four years in fact! My original site is pretty simple and I would like to create something that will really grab people's attention and make it stand out from the crowd. What do you think are the essentials that I should include in my new-style site?

It's hard to make a clear judgement without knowing some background information, but there are few steps that you should consider. The first step is to consider your audience. Who are you trying to attract with your site? This leads to what sort of content needs to be included on the site. The content needs to be interesting, engaging and focused. Think

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about what people want to read or see and make sure you include it all.

The design style is very much a personal choice. You can start with the fonts, you can start with the colour palette or you can start with the layout, whatever inspires you best.

Think of the technologies and tools. Any site should be using HTML and CSS – preferably HTML5 and CSS3 – but this depends very much on the specifics being used. jQuery is always a good choice and there are plenty of great plug-ins available. Also, make sure that the site works well on all screens. This can be responsive or bespoke, but make sure the site works across platforms.



@Mindworks

Well this certainly made our day! Our website is featured as "site of the week" @ <http://bit.ly/1d0QtSB> Thank you so much @WebDesignerMag



@benburnett23

@WebDesignerMag hi guys! Just curious if you give away digital copies of old magazines if I have the original printed version? :)

Subject An alternative to WordPress?

From Lucie Bill



WordPress is a great platform for creating a website and I have a couple of sites built on the platform. As everyone knows the great thing about WordPress is that it can be accessed from any computer with a net connection (what computer doesn't have a net connection nowadays?).

But, the problem I have is when I want to update or add a new post to a site when I'm on the move. I have the official WordPress mobile app for iPhone and Android. The app

is okay, but it made me wonder whether there are alternatives to the official version or if there's another blogging platform I should look at.

We have used the mobile versions of WordPress and we have to say they have limited use. There are a few alternatives out there and one that we have noticed is BlogPad Pro. This is not a free app, but offers a host of features and tools that make it worth the £2.99 – but the app is only available on iOS. Another WordPress app companion is Blogsy, this is also £2.99, but offers a great feature set and good ease of use.

One free platform alternative to look at is Tumblr. It's simple, intuitive and easy to set up – with the added bonus of

being completely free. If you want to get up and running quickly then this a great alternative to consider.



@Bluestepstudio

Our studio featured on @WebDesignerMag, the leading authority for worldwide web creatives & designers. Just awesome. pic.twitter.com/6SDhqKRvCF



@gossipponymedia

Finding inspiration in one of my favorite non #equestrian #magazines @WebDesignerMag

 Tumblr is intuitive, easy to set up, and a great alternative to WordPress 



Sign up to Tumblr in seconds and start blogging straight away




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 1 & 1 Internet Ltd www.1and1.co.uk	1&1 Starter (Linux)	0844 335 12 11	£29.88	5GB	Unlimited	1,000	✓	✓	✓	✓	✓	✓	✓	X
	1&1 Standard (Linux)	0844 335 12 11	£59.88	50GB	Unlimited	3,000	✓	✓	✓	✓	✓	✓	✓	X
	1&1 Standard (Windows)	0844 335 12 11	£59.88	50GB	Unlimited	3,000	✓	X	✓	✓	✓	✓	✓	X
	1&1 Unlimited (Linux)	0844 335 12 11	£83.88	Unlimited	Unlimited	5,000	✓	✓	✓	✓	✓	✓	✓	X
	1&1 Unlimited (Windows)	0844 335 12 11	£83.88	Unlimited	Unlimited	5,000	✓	X	✓	✓	✓	✓	✓	X
	1&1 Business (Linux)	0844 335 12 11	£119.88	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	Free	✓	✓	X
	1&1 Business (Windows)	0844 335 12 11	£119.88	Unlimited	Unlimited	Unlimited	✓	X	✓	✓	Free	✓	✓	X
 111WebHost 111webhost.com	Unlimited Web Hosting Pack	N/A	£60	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	X	✓	✓	X
	Starter Web Hosting Pack	N/A	£30	5GB	2GB	100	✓	✓	✓	✓	X	✓	✓	X
	Budget Web Hosting Pack	N/A	£12	1GB	1GB	5	✓	X	✓	✓	X	✓	✓	X
	WordPress Web Hosting Pack	N/A	£24	5GB	2GB	100	✓	✓	✓	✓	X	✓	✓	X
	Drupal Web Hosting Pack	N/A	£24	5GB	2GB	100	✓	✓	✓	✓	X	✓	✓	X
	Joomla! Web Hosting Pack	N/A	£24	5GB	2GB	100	✓	✓	✓	✓	X	✓	✓	X
	Reseller Hosting Pack	N/A	£300	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	X	✓	✓	X
	Budget VPS Hosting	N/A	£216	1GB	Unlimited	Unlimited	✓	✓	✓	✓	X	✓	✓	X
	Email Hosting	N/A	£6	0GB	0GB	5	✓	✓	✓	✓	X	✓	✓	X
123-reg (www.123-reg.co.uk)	Starter	0845 859 0018	£29.88	1GB	5GB	20	X	X	X	✓	✓	✓	✓	X
123-reg (www.123-reg.co.uk)	Plus	0845 859 0018	£59.88	5GB	50GB	500	✓	X	X	✓	✓	✓	✓	X
123-reg (www.123-reg.co.uk)	Pro	0845 859 0018	£107.88	10GB	100GB	750	✓	X	X	✓	✓	✓	✓	X
123-reg (www.123-reg.co.uk)	Bus Pro	0845 859 0018	£179.88	20GB	Unlimited	1,000	✓	X	X	✓	✓	✓	✓	X
123-reg (www.123-reg.co.uk)	Plus (MS)	0845 859 0018	£59.88	2GB	25GB	100	✓	X	X	✓	✓	✓	✓	X
123-reg (www.123-reg.co.uk)	Pro (MS)	0845 859 0018	£107.88	5GB	50GB	500	✓	X	X	✓	✓	✓	✓	X
123-reg (www.123-reg.co.uk)	Bus Pro (MS)	0845 859 0018	£179.88	10GB	150GB	1,000	✓	X	X	✓	✓	✓	✓	X
2020Media (www.2020media.com)	Light User	0870 321 2020	£45	20MB	1GB	3	✓	✓	✓	✓	✓	✓	✓	X
2020Media (www.2020media.com)	Everyday	0870 321 2020	£100	200MB	10GB	15	✓	✓	✓	✓	✓	✓	✓	X
2020Media (www.2020media.com)	Business/Pro	0870 321 2020	£275	500MB	20GB	50	✓	✓	✓	✓	✓	✓	✓	X
2020Media (www.2020media.com)	JAVA Tomcat	0870 321 2020	£300	100MB	3GB	15	✓	✓	✓	✓	✓	✓	✓	X
2020Media (www.2020media.com)	ASP.Net	0870 321 2020	£275	100MB	3GB	15	✓	✓	✓	✓	✓	✓	✓	X
4D Data Centres (www.4dhosting.com)	Bronze Package	0845 166 8386	£40	10MB	500MB	2	✓	X	✓	✓	✓	✓	✓	X
4D Data Centres (www.4dhosting.com)	Silver Package	0845 166 8386	£64.99	20MB	2GB	10	✓	X	✓	✓	✓	✓	✓	X
4D Data Centres (www.4dhosting.com)	Gold Package	0845 166 8386	£79.99	50MB	2GB	50	✓	X	✓	✓	✓	✓	✓	X
4D Data Centres (www.4dhosting.com)	Titanium Package	0845 166 8386	£149.99	500MB	5GB	500	✓	X	✓	✓	✓	✓	✓	✓
4D Data Centres (www.4dhosting.com)	Reseller Package	0845 166 8386	£299.99	1GB	10GB	1,000	✓	X	✓	✓	✓	✓	✓	✓
Blackfoot Hosting Ltd (www.blackfoot.co.uk)	Home	N/A	£40	500MB	5GB	5	✓	✓	✓	✓	X	✓	✓	X
Blackfoot Hosting Ltd (www.blackfoot.co.uk)	Business	N/A	£50	1GB	20GB	100	✓	✓	✓	✓	X	✓	✓	X
Blackfoot Hosting Ltd (www.blackfoot.co.uk)	eCommerce	N/A	£100	2GB	40GB	200	✓	✓	✓	✓	X	✓	✓	X
Blackfoot Hosting Ltd (www.blackfoot.co.uk)	Professional	N/A	£150	3GB	60GB	300	✓	✓	✓	✓	X	✓	✓	X
Blacknight (www.blacknight.com)	Minimus	35359 918 3072	£45	10GB	200GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	X
Blacknight (www.blacknight.com)	Medius	35359 918 3072	£79	20GB	400GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	X
Blacknight (www.blacknight.com)	Maximus	35359 918 3072	£45	30GB	600GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	X
Bravo14 (http://bravo14.co.uk)	Starter Linux	N/A	£130	2,000MB	2,000MB	10	✓	✓	✓	✓	X	✓	✓	✓
Bravo14 (http://bravo14.co.uk)	Starter Windows	N/A	£20	2,000MB	2,000MB	10	✓	✓	✓	✓	X	✓	✓	✓
 CityCM www.citycm.couk	City250	0330 223 0120	£10.99	250MB	5GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	City500	0330 223 0120	£14.99	500MB	10GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	City2000	0330 223 0120	£29.90	2GB	50GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	City10000	0330 223 0120	£49.90	10GB	100GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	CityR10	0330 223 0120	£120	10GB	50GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	CityR20	0330 223 0120	£180	20GB	100GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	CityR30	0330 223 0120	£240	30GB	150GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	City VPS15	0330 223 0120	£180	15GB SSD	400GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	City VPS30	0330 223 0120	£300	30GB SSD	600GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	City VPS75	0330 223 0120	£420	75GB SSD	600GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓


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111WebHost is a provider committed to making website hosting easy to use while offering the best possible value. It provides solutions for small and medium-sized businesses as well as individuals. Web designers and developers are high on their list. 111WebHost offers a range of top-value packages starting at the

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Bravo14 (http://bravo14.co.uk)	Business Linux	N/A	£45	4,000MB	4,000MB	4,000	✓	✓	✓	✓	✓	✓	✓	✓
Bravo14 (http://bravo14.co.uk)	Business Windows	N/A	£45	4,000MB	4,000MB	4,000	✓	✓	✓	✓	✓	✓	✓	✓
Bravo14 (http://bravo14.co.uk)	Ultimate Linux	N/A	£60	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Bravo14 (http://bravo14.co.uk)	Ultimate Windows	N/A	£60	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Designwasp (http://designwasp.com)	Starter	0844 372 9848	£30	3GB	20GB	1,000	✓	✓	✓	✓	✓	✓	✓	✓
Designwasp (http://designwasp.com)	Home	0844 372 9848	£40	10GB	50GB	10,000	✓	✓	✓	✓	✓	✓	✓	✓
Designwasp (http://designwasp.com)	Business	0844 372 9848	£60	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Designwasp (http://designwasp.com)	Windows Unlimited	0844 372 9848	£60	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Designwasp (http://designwasp.com)	Windows Home	0844 372 9848	£40	10GB	50GB	1,000	✓	✓	✓	✓	✓	✓	✓	✓
Designwasp (http://designwasp.com)	CheapHost	0844 372 9848	£10	300MB	100MB	5	✓	✓	✓	✓	✓	✓	✓	✓
Digital Gibbon Ltd (http://digitalgibbon.com)	Personal	01865 589 990	£12	1GB	Unlimited	10	✓	✓	✓	✓	✓	✓	✓	✓
Digital Gibbon Ltd (http://digitalgibbon.com)	Personal Plus	01865 589 990	£48	Unlimited	Unlimited	50	✓	✓	✓	✓	✓	✓	✓	✓
Digital Gibbon Ltd (http://digitalgibbon.com)	Business	01865 589 990	£108	5GB	Unlimited	1000	✓	✓	✓	✓	✓	✓	✓	✓
Digital Gibbon Ltd (http://digitalgibbon.com)	Business Professional	01865 589 990	£132	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Domaincheck (www.domaincheck.co.uk)	Bronze Linux	0191 261 2252	£30	100MB	1GB	5	✓	✓	✓	✓	✓	✓	✓	✓
Domaincheck (www.domaincheck.co.uk)	Gold Linux	0191 261 2252	£100	500MB	5GB	25	✓	✓	✓	✓	✓	✓	✓	✓
Domaincheck (www.domaincheck.co.uk)	Bronze Windows	0191 261 2252	£30	100MB	1GB	5	✓	✓	✓	✓	✓	✓	✓	✓
Domaincheck (www.domaincheck.co.uk)	Gold Windows	0191 261 2252	£100	500MB	5GB	25	✓	✓	✓	✓	✓	✓	✓	✓
Donhost (www.donhost.co.uk)	Reseller Unix	0845 226 5566	£399.99	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Donhost (www.donhost.co.uk)	Reseller Windows	0845 226 5566	£499.99	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Donhost (www.donhost.co.uk)	Enterprise	0845 226 5566	£89.99	1GB	2GB	250	✓	✓	✓	✓	✓	✓	✓	✓
Donhost (www.donhost.co.uk)	Commerce	0845 226 5566	£179.99	2GB	5GB	500	✓	✓	✓	✓	✓	✓	✓	✓
Donhost (www.donhost.co.uk)	Designer	0845 226 5566	£119.99	1GB	2GB	250	✓	✓	✓	✓	✓	✓	✓	✓
Donhost (www.donhost.co.uk)	Developer	0845 226 5566	£259.99	2GB	5GB	500	✓	✓	✓	✓	✓	✓	✓	✓
eHosting (www.ehosting.com)	Starter	0844 999 4100	£23.88	1GB	25GB	10	✓	✓	✓	✓	✓	✓	✓	✓
eHosting (www.ehosting.com)	Personal	0844 999 4100	£59.88	2.5GB	Unlimited	50	✓	✓	✓	✓	✓	✓	✓	✓
eHosting (www.ehosting.com)	Expert	0844 999 4100	£95.88	5GB	Unlimited	250	✓	✓	✓	✓	✓	✓	✓	✓
eHosting (www.ehosting.com)	Virtual	0844 999 4100	£227.88	50GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Equipphase (www.equipphase.net)	Bronze	0121 314 4865	£30	200MB	2GB	10	✓	✓	✓	✓	✓	✓	✓	✓
Equipphase (www.equipphase.net)	Silver	0121 314 4865	£42	400MB	5GB	20	✓	✓	✓	✓	✓	✓	✓	✓
Equipphase (www.equipphase.net)	Gold	0121 314 4865	£72	800MB	10GB	100	✓	✓	✓	✓	✓	✓	✓	✓
Equipphase (www.equipphase.net)	Platinum	0121 314 4865	£114	1,200MB	40GB	200	✓	✓	✓	✓	✓	✓	✓	✓
Eurofasthost.com (www.eurofasthost.com)	Email Only	02380 249 823	£40	1GB	2GB	10	✓	✓	✓	✓	✓	✓	✓	✓
Eurofasthost.com (www.eurofasthost.com)	Essential	02380 249 823	£75	2GB	5GB	10	✓	✓	✓	✓	✓	✓	✓	✓
Eurofasthost.com (www.eurofasthost.com)	Superior	02380 249 823	£140	5GB	10GB	25	✓	✓	✓	✓	✓	✓	✓	✓
Eurofasthost.com (www.eurofasthost.com)	Premium	02380 249 823	£250	10GB	25GB	100	✓	✓	✓	✓	✓	✓	✓	✓
Evohosting (www.evohosting.co.uk)	Starter	N/A	£29.99	500MB	1GB	3	✓	✓	✓	✓	✓	✓	✓	✓
Evohosting (www.evohosting.co.uk)	Home	N/A	£54.99	2.5GB	30GB	50	✓	✓	✓	✓	✓	✓	✓	✓
Evohosting (www.evohosting.co.uk)	Business	N/A	£79.99	6.5GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Evohosting (www.evohosting.co.uk)	eCommerce	N/A	£159.99	30GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
 Fasthosts www.fasthosts.co.uk	Personal	0808 168 6777	£32.87	5GB	Unlimited	50	✓	✓	✓	✓	✓	✓	✓	✓
	Business Bronze	0808 168 6777	£58.38	50GB	Unlimited	500	✓	Option	✓	✓	✓	✓	✓	✓
	Business Silver	0808 168 6777	£76.39	Unlimited	Unlimited	Unlimited	✓	Option	✓	✓	✓	✓	✓	✓
	Business Gold	0808 168 6777	£101.89	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	WD Starter	0808 168 6777	£149.99	20GB	Unlimited	Unlimited	✓	Option	Option	✓	✓	✓	✓	✓
	WD Advanced	0808 168 6777	£199.99	Unlimited	Unlimited	Unlimited	✓	Option	Option	✓	✓	✓	✓	✓
Giacom (www.giacom.com)	Business Pro	0800 542 7500	£199	100MB	2GB	100	✓	✓	✓	✓	✓	✓	✓	✓
Heart Internet (www.heartinternet.co.uk)	Starter Professional	0845 644 7750	£29.80	2.5GB	10GB	1,000	✓	✓	✓	✓	✓	✓	✓	✓
Heart Internet (www.heartinternet.co.uk)	Home Professional	0845 644 7750	£89.99	Unlimited	Unlimited	10,000	✓	✓	✓	✓	✓	✓	✓	✓
Heart Internet (www.heartinternet.co.uk)	Business Professional	0845 644 7750	£129.99	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Heart Internet (www.heartinternet.co.uk)	Reseller Professional	0845 644 7750	£349.99	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Hostway (www.hostway.co.uk)	Silver	0808 180 1880	£79.50	150MG	3GB	5	✓	Option	✓	✓	✓	✓	✓	✓
Hostway (www.hostway.co.uk)	Gold	0808 180 1880	£139.50	300MB	5GB	10	✓	Option	✓	✓	✓	✓	✓	✓
Hostway (www.hostway.co.uk)	Gold Plus	0808 180 1880	£189.50	450MB	10GB	30	✓	Option	✓	✓	✓	✓	✓	✓
Hostway (www.hostway.co.uk)	Platinum	0808 180 1880	£359.50	600MB	20GB	50	✓	Option	✓	✓	✓	✓	✓	✓


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NAME AND URL	PACKAGE	PHONE NUMBER	COST PER YEAR	WEB SPACE	MONTHLY BANDWIDTH	POP3 ACCOUNTS	DATABASE SUPPORT	SHOPPING CART	VIRUS FILTER	FIREWALL	PHONE SUPPORT	EMAIL SUPPORT	WEB CONTROL PANEL	SERVICE LEVEL AGREEMENT
Hostway (www.hostway.co.uk)	Platinum Plus	0808 180 1880	£599.50	1.2GB	40GB	10	✓	Option	✓	✓	✓	✓	✓	✓
Hostway (www.hostway.co.uk)	Email Plus	0808 180 1880	£49.95	50MB	N/A	5	N/A	N/A	N/A	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Professional	0845 009 9175	£30	250MB	1GB	50	✓	✓	option	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Advanced	0845 009 9175	£50	2GB	2.5GB	150	✓	✓	option	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Enterprise	0845 009 9175	£80	2GB	500MB	Unlimited	✓	✓	option	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Professional Plus	0845 009 9175	£90	500MB	5GB	100	✓	✓	option	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Premium Plus	0845 009 9175	£150	1GB	12.5GB	500	✓	✓	option	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Enterprise Plus	0845 009 9175	£300	2GB	20GB	Unlimited	✓	✓	option	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Reseller Windows	0845 009 9175	£200	Unlimited	Unlimited	Unlimited	✓	✓	option	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Reseller Linux	0845 009 9175	£200	Unlimited	Unlimited	Unlimited	✓	✓	option	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Reseller Enterprise	0845 009 9175	£500	Unlimited	Unlimited	Unlimited	✓	✓	option	✓	✓	✓	✓	✓
JAB Web Hosting (www.jabwebhosting.com)	Mail - M105	0800 043 0153	£15.17	256MB	3GB	50	✓	✓	✓	✓	✓	✓	✓	✓
JAB Web Hosting (www.jabwebhosting.com)	Home - H25	0800 043 0153	£24.47	1GB	8GB	50	✓	✓	✓	✓	✓	✓	✓	✓
JAB Web Hosting (www.jabwebhosting.com)	Professional - P55	0800 043 0153	£45	2GB	15GB	75	✓	✓	✓	✓	✓	✓	✓	✓
JAB Web Hosting (www.jabwebhosting.com)	Reseller - R25	0800 043 0153	£97.88	2GB	30GB	250	✓	✓	✓	✓	✓	✓	✓	✓
JAB Web Hosting (www.jabwebhosting.com)	Reseller - R105	0800 043 0153	£271.60	4GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
LCN (www.lcn.com)	Blog	01438 342 490	£20	100MB	1GB	5	✓	✓	✓	✓	✓	✓	✓	✓
LCN (www.lcn.com)	Starter	01438 342 490	£30	1GB	1GB	10	✓	✓	✓	✓	✓	✓	✓	✓
LCN (www.lcn.com)	Starter	01438 342 490	£30	1GB	1GB	10	✓	✓	✓	✓	✓	✓	✓	✓
LCN (www.lcn.com)	Dynamic	01438 342 490	£50	2GB	2GB	20	✓	✓	✓	✓	✓	✓	✓	✓
LCN (www.lcn.com)	Premium	01438 342 490	£80	5GB	5GB	50	✓	✓	✓	✓	✓	✓	✓	✓
LCN (www.lcn.com)	Unlimited	01438 342 490	£120	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
LD Hosts (http://ldhosts.co.uk)	LD Budget (Linux)	07891 235858	£11.88	1GB	1GB	500	✓	✓	✓	✓	✓	✓	✓	✓
LD Hosts (http://ldhosts.co.uk)	LD Home (Linux)	07891 235858	£23.88	10GB	10GB	5,000	✓	✓	✓	✓	✓	✓	✓	✓
LD Hosts (http://ldhosts.co.uk)	LD Pro (Linux)	07891 235858	£41.88	50GB	50GB	20,000	✓	✓	✓	✓	✓	✓	✓	✓
LD Hosts (http://ldhosts.co.uk)	LD Unlimited (Linux)	07891 235858	£60	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
LD Hosts (http://ldhosts.co.uk)	Windows Home	07891 235858	£17.88	2GB	2GB	1,000	✓	✓	✓	✓	✓	✓	✓	✓
LD Hosts (http://ldhosts.co.uk)	Windows Unlimited	07891 235858	£60	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Media Temple (http://mediatemple.net)	Shared-Server Pro	+1 310 841 5500	£64	2GB	1TB	1,000	✓	✓	✓	✓	✓	✓	✓	✓
Media Temple (http://mediatemple.net)	Shared-Server Advanced	+1 310 841 5500	£109	5GB	1.5TB	5,000	✓	✓	✓	✓	✓	✓	✓	✓
NameHog	Email Only	01604 212 904	£11.99	2.5GB	15GB	10	✓	✓	✓	✓	✓	✓	✓	✓
NameHog	Starter	01604 212 904	£36.99	10GB	150GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
NameHog	Home Pro	01604 212 904	£59.99	25GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
NameHog	Business	01604 212 904	£109.99	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Namesco (www.names.co.uk)	StartUp Plus	0845 363 3632	£89.99	500MB	5GB	10	✓	✓	✓	✓	✓	✓	✓	✓
Namesco (www.names.co.uk)	Business	0845 363 3632	£149.99	2,000MB	20GB	100	✓	✓	✓	✓	✓	✓	✓	✓
Namesco (www.names.co.uk)	Business Plus	0845 363 3632	£89.99	3,000MB	30GB	200	✓	✓	✓	✓	✓	✓	✓	✓
Namesco (www.names.co.uk)	Designer	0845 363 3632	£239.88	1GB	20GB	200	✓	✓	✓	✓	✓	✓	✓	✓
Namesco (www.names.co.uk)	Designer Plus	0845 363 3632	£479.88	Unlimited	30GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
 Netcetera www.netcetera.co.uk	DEVELOPER	0800 808 5450	£32.89	1GB	Unlimited	500	✓	✓	✓	✓	✓	✓	✓	✓
	ONE	0800 808 5450	£109.99	5GB	Unlimited	1000	✓	✓	✓	✓	✓	✓	✓	✓
	RESELLER	0800 808 5450	£274.89	Unlimited	Unlimited	1000	✓	✓	✓	✓	✓	✓	✓	✓
	VM500 Server	0800 808 5450	£300	20GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	2200DC Server	0800 808 5450	£720	160GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	3000DC Server	0800 808 5450	£1,200	2x500GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	2600QC Server	0800 808 5450	£1,800	2x500GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Netplan (www.netplan.co.uk)	Shared 100	0207 1000 424	£60	100MB	1GB	5	✓	✓	✓	✓	✓	✓	✓	✓
Netplan (www.netplan.co.uk)	VS100	0207 1000 424	£600	5GB	5GB	5	✓	✓	✓	✓	✓	✓	✓	✓
Netplan (www.netplan.co.uk)	VS200	0207 1000 424	£1,000	10GB	10GB	10	✓	✓	✓	✓	✓	✓	✓	✓
Netplan (www.netplan.co.uk)	VS300	0207 1000 424	£2,000	15GB	50GB	20	✓	✓	✓	✓	✓	✓	✓	✓
Netplan (www.netplan.co.uk)	Dedicated Servers	0207 1000 424	£3,000+	73GB+	1,500GB	100+	✓	✓	✓	✓	✓	✓	✓	✓
PurplePaw (www.purplepaw.co.uk)	Email	N/A	£25	100MB	1GB	10	✓	✓	✓	✓	✓	✓	✓	✓
PurplePaw (www.purplepaw.co.uk)	Play	N/A	£40	100MB	1GB	10	✓	✓	✓	✓	✓	✓	✓	✓
PurplePaw (www.purplepaw.co.uk)	Plus	N/A	£65	750MB	5GB	25	✓	✓	✓	✓	✓	✓	✓	✓

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NAME AND URL

NAME AND URL	PACKAGE	PHONE NUMBER	COST PER YEAR	WEB SPACE	MONTHLY BANDWIDTH	POP3 ACCOUNTS	DATABASE SUPPORT	SHOPPING CART	VIRUS FILTER	FIREWALL	PHONE SUPPORT	EMAIL SUPPORT	WEB CONTROL PANEL	SERVICE LEVEL AGREEMENT
PurplePaw (www.purplepaw.co.uk)	Power	N/A	£95	2GB	10GB	100	✓	✓	✓	✓	✓	✓	✓	✓
PurplePaw (www.purplepaw.co.uk)	R3 Reseller	N/A	£660	10GB	50GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Reddex UK (www.reddexuk.com)	Reddex Design Starter	0843 289 4625	£18	1GB	Unlimited	10	✓	✓	✓	✓	✓	✓	✓	✓
Reddex UK (www.reddexuk.com)	Reddex Design Business	0843 289 4625	£59.88	10GB	Unlimited	100	✓	✓	✓	✓	✓	✓	✓	✓
Reddex UK (www.reddexuk.com)	Reddex Design Premium	0843 289 4625	£107.88	100GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
STRATO Hosting (www.strato-hosting.co.uk)	STRATO BasicWeb	00800 8007 0070	£48	2GB	Unlimited	1,000	✓	✓	✓	✓	✓	✓	✓	✓
STRATO Hosting (www.strato-hosting.co.uk)	STRATO PowerWeb	00800 8007 0070	£72	6GB	Unlimited	2,000	✓	✓	✓	✓	✓	✓	✓	✓
STRATO Hosting (www.strato-hosting.co.uk)	STRATO AdvancedWeb	00800 8007 0070	£120	20GB	Unlimited	4,000	✓	✓	✓	✓	✓	✓	✓	✓
STRATO Hosting (www.strato-hosting.co.uk)	STRATO EnterpriseWeb	00800 8007 0070	£180	50GB	Unlimited	6,000	✓	✓	✓	✓	✓	✓	✓	✓
Streamline.net (www.streamline.net)	Trial (3 month)	0844 941 1000	N/A	10GB	Unlimited	1,000	✓	Option	✓	✓	✓	✓	✓	✓
Streamline.net (www.streamline.net)	Starter	0844 941 1000	£23.88	500MB	Unlimited	20	✓	Option	✓	✓	✓	✓	✓	✓
Streamline.net (www.streamline.net)	Personal	0844 941 1000	£41.88	3GB	Unlimited	500	✓	Option	✓	✓	✓	✓	✓	✓
Streamline.net (www.streamline.net)	Plus	0844 941 1000	£71.88	10GB	Unlimited	1,000	✓	Option	✓	✓	✓	✓	✓	✓
Streamline.net (www.streamline.net)	Multisite	0844 941 1000	£137.88	20GB	Unlimited	Unlimited	✓	Option	✓	✓	✓	✓	✓	✓
Swish Hosting (www.swishhosting.co.uk)	Email	08445 67 69 71	£18	-	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Swish Hosting (www.swishhosting.co.uk)	Windows Hosting	08445 67 69 71	£66	-	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Swish Hosting (www.swishhosting.co.uk)	Linux Hosting	08445 67 69 71	£66	-	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Swish Hosting (www.swishhosting.co.uk)	eCommerce	08445 67 69 71	£90	-	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Swish Hosting (www.swishhosting.co.uk)	SiteBuilder	08445 67 69 71	£12	-	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Switch Media (www.switchmedia.com)	Switch Standard	0151 236 9111	£159	1GB	50GB	500	✓	✓	✓	✓	✓	✓	✓	✓
Switch Media (www.switchmedia.com)	Switch Business	0151 236 9111	£249	10GB	150GB	1500	✓	✓	✓	✓	✓	✓	✓	✓
Switch Media (www.switchmedia.com)	Business Pro	0151 236 9111	£348.96	20GB	300GB	5000	✓	✓	✓	✓	✓	✓	✓	✓
Tidy Web Hosting (www.tidywebhosting.co.uk)	Entry	0844 884 9100	£25	100MB	1GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Tidy Web Hosting (www.tidywebhosting.co.uk)	Home	0844 884 9100	£50	500MB	5GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Tidy Web Hosting (www.tidywebhosting.co.uk)	HomePro	0844 884 9100	£100	1GB	10GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Tidy Web Hosting (www.tidywebhosting.co.uk)	Business	0844 884 9100	£150	2GB	20GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Tidy Web Hosting (www.tidywebhosting.co.uk)	BusinessPro	0844 884 9100	£250	5GB	50GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
TwentyHost (www.twentyhost.co.uk)	Basic5S	0845 641 0776	£24	100MB	1,500MB	25	✓	✓	✓	✓	✓	✓	✓	✓
TwentyHost (www.twentyhost.co.uk)	Standard5S	0845 641 0776	£45	200MB	3,000MB	50	✓	✓	✓	✓	✓	✓	✓	✓
TwentyHost (www.twentyhost.co.uk)	Business5S	0845 641 0776	£70	500MB	7,500MB	100	✓	✓	✓	✓	✓	✓	✓	✓
TwentyHost (www.twentyhost.co.uk)	Advanced5S	0845 641 0776	£110	1,000MB	15,000MB	200	✓	✓	✓	✓	✓	✓	✓	✓
VARIHOST (www.varihost.net)	WordPress Basic	0208 144 7057	£47.88	2GB	10GB	10	✓	✓	✓	✓	✓	✓	✓	✓

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Starter Hosting	0808 168 2427	£24	500MB	1GB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Business Hosting	0808 168 2427	£54	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓	✓
Business Cloud	0808 168 2427	£108	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓	✓
Reseller Starter	0808 168 2427	£180	10GB	100GB	10	✓	✓	✓	✓	✓	✓	✓	✓	✓
Reseller Plus	0808 168 2427	£360	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dedicated Server	0808 168 2427	£704	2x500GB	10TB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓	✓

VARIHOST (www.varihost.net)	WordPress Plus	0208 144 7057	£71.88	4GB	100GB	100	✓	✓	✓	✓	✓	✓	✓	✓
VARIHOST (www.varihost.net)	WordPress Extra	0208 144 7057	£119.88	unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
WebFusion (www.webfusion.co.uk)	Fusion Professional	0845 130 1602	£107.40	5GB	50GB	1,000	✓	✓	✓	✓	✓	✓	✓	✓
WebFusion (www.webfusion.co.uk)	Fusion Business	0845 130 1602	£179.40	10GB	150GB	1,500	✓	✓	✓	✓	✓	✓	✓	✓
WebFusion (www.webfusion.co.uk)	Fusion Developer	0845 130 1602	£227.40	20GB	300GB	5,000	✓	✓	✓	✓	✓	✓	✓	✓
WebFusion (www.webfusion.co.uk)	Fusion Reseller	0845 130 1602	£329.99	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Z-Host (z-host.co.uk)	Z-100	N/A	£15	100MB	10GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Z-Host (z-host.co.uk)	Z-200	N/A	£21	100MB	10GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Z-Host (z-host.co.uk)	Z-500	N/A	£42	500MB	20GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Z-Host (z-host.co.uk)	Z-1000	N/A	£60	1GB	40GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓

Golden rules to top hosting

We identify and explain the key criteria for success...

1 The best resources for you

Selecting your ideal package is largely determined by the kinds of resources and quantity of features you require from your hosting solution. Key aspects such as web space and monthly bandwidth are important for those services likely to be subjected to heavy amounts of traffic, which is why package solutions for enterprise applications are typically much more expensive. The general rule of thumb is not to buy more than you need or underestimate potential requirements.

2 Competitive and reliable

The hosting market is big business and hosting providers do try to drive prices down in a bid to entice your custom. Use our chart to compare costs, but be sure to visit the vendor websites to keep track of the latest deals, as they do change. Remember that low price should not always be a deciding factor and that paying a premium for a more reliable, trusted and experienced vendor can offer you much better value for money in the long term.

3 Putting you in control

Modern hosting is all about giving customers the power to set up, monitor and maintain their web space with minimal fuss. Most commercial vendors offer access to award-winning and intuitive control panels that enable you to log in remotely and intuitively tweak your account - without the need to relay complicated instructions down the phone. Be sure to find out from your potential host as much as you can about the control panel and request a demo.

4 Fantastic customer support

If all else fails and you need some extra help to get your hosting back online, then a commitment to future customer support is key. Many vendors offer a service-level agreement which outlines what you can expect here, however most will be more explicit about whether phone support is included or email contact is preferred. Think about what you need for your own peace of mind and factor good, comprehensive technical support against the price.

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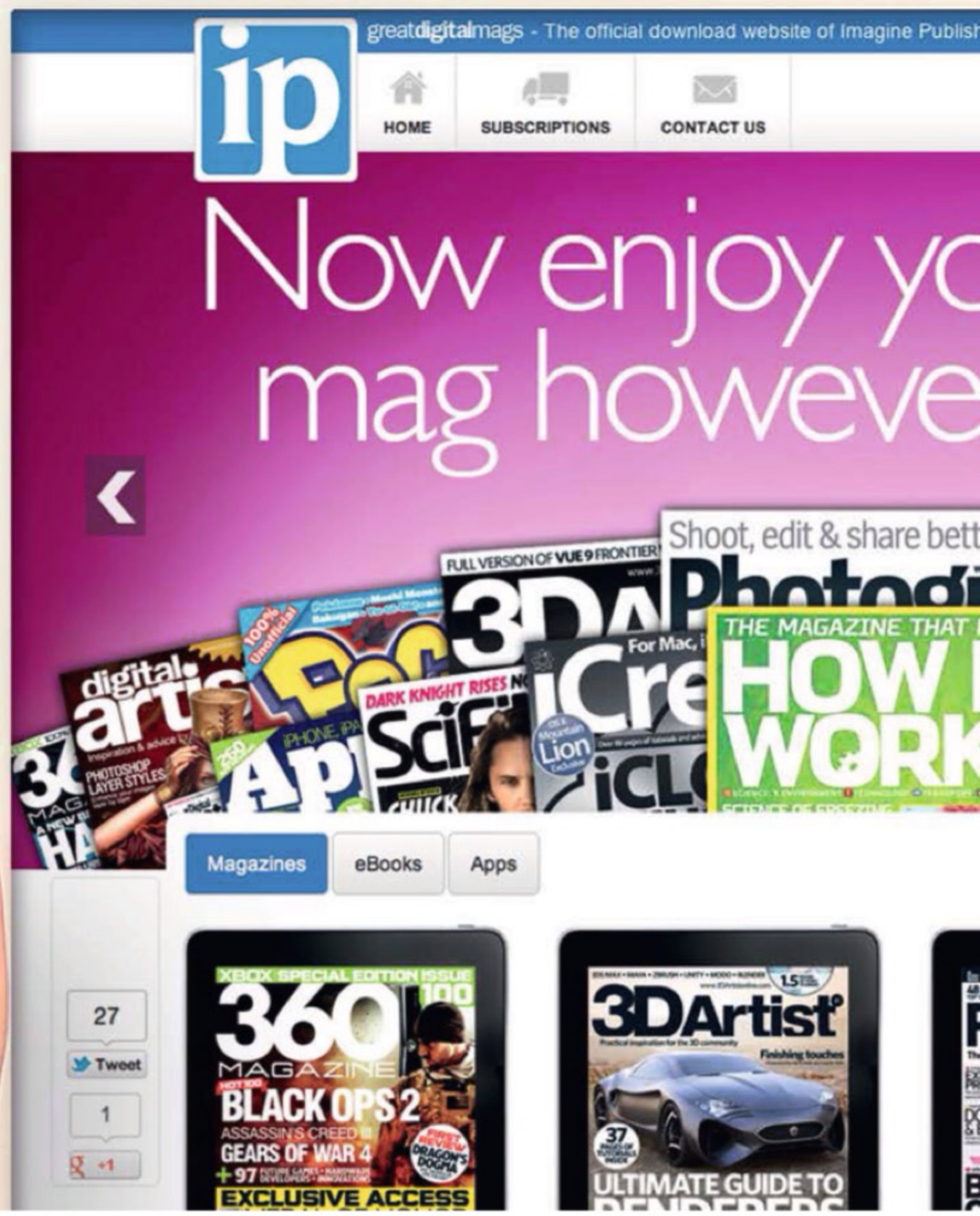


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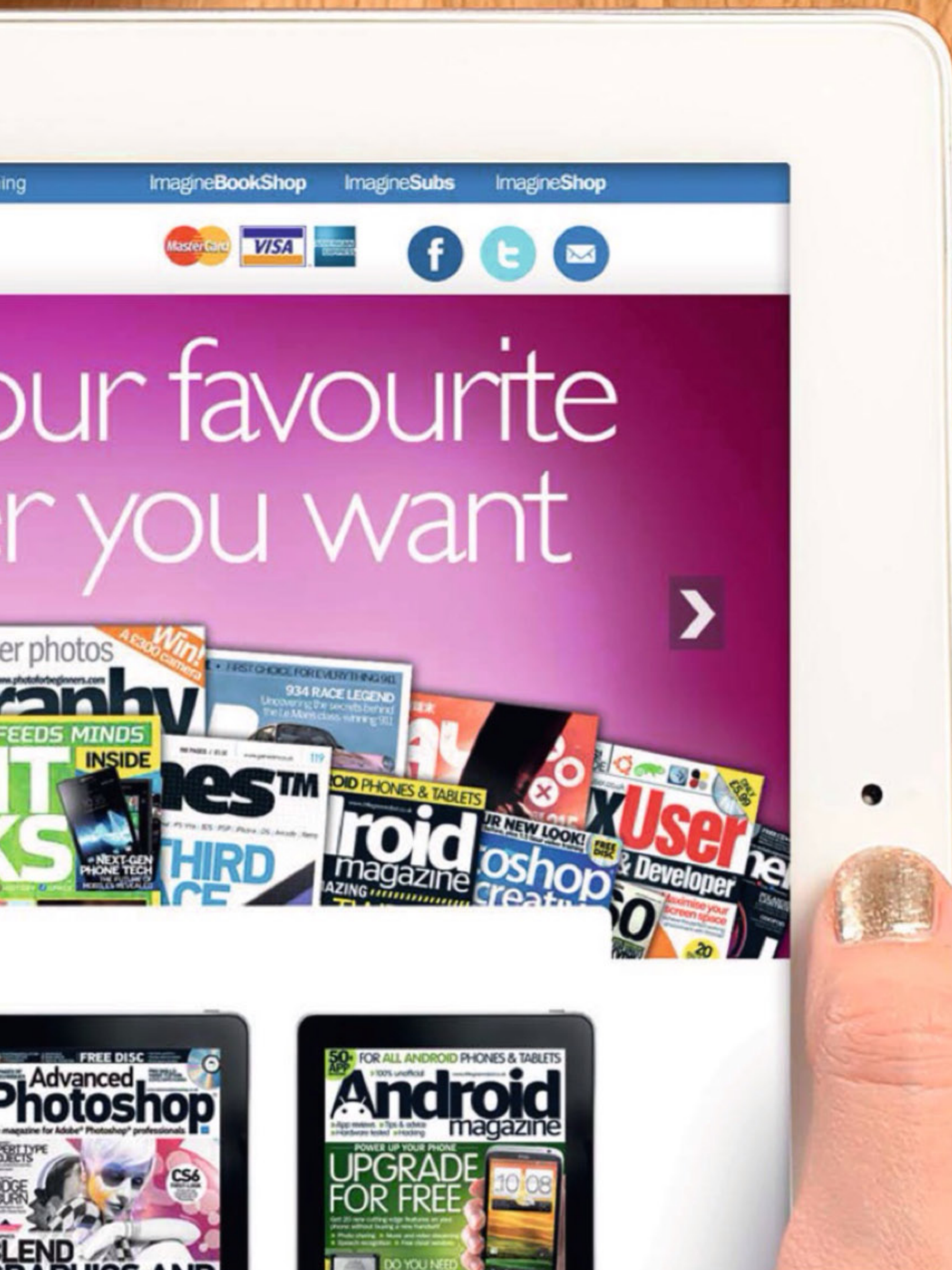
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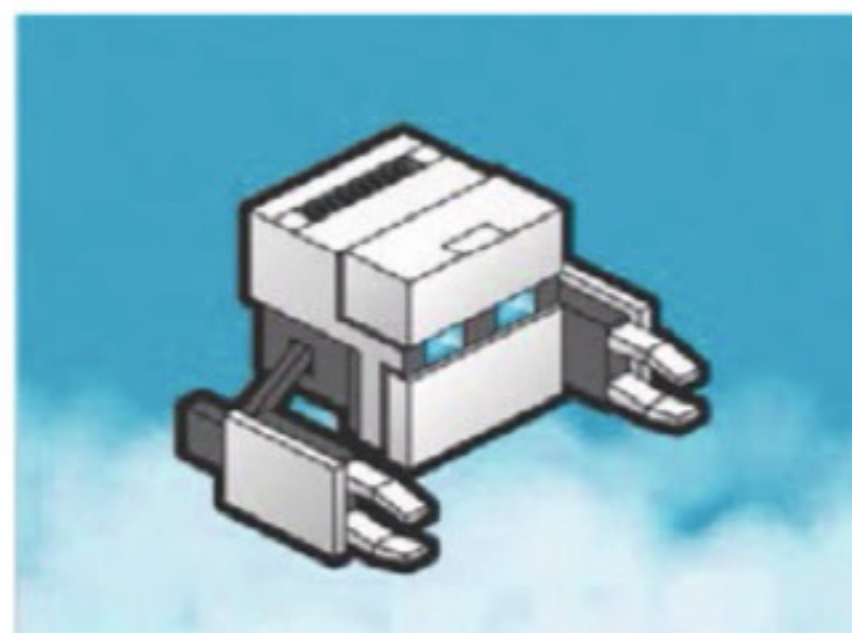
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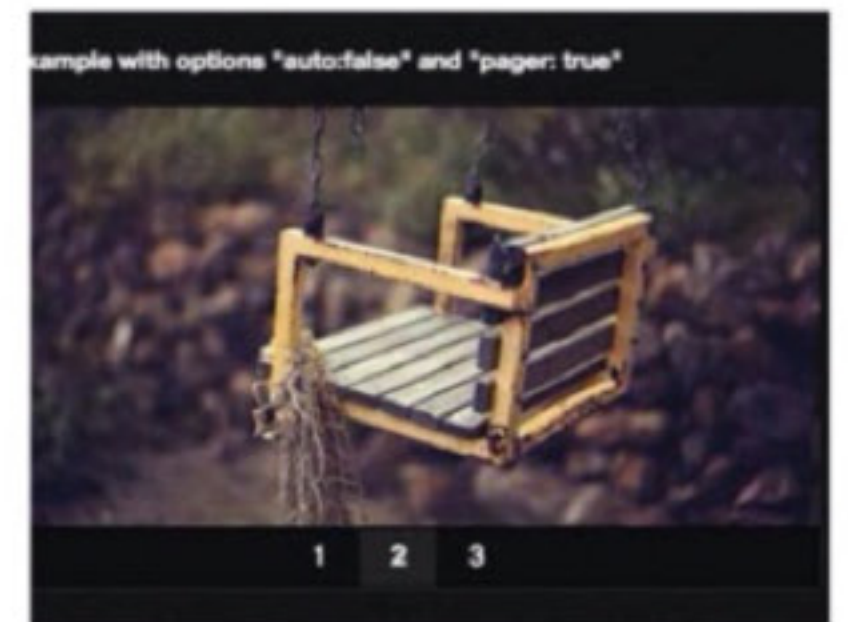
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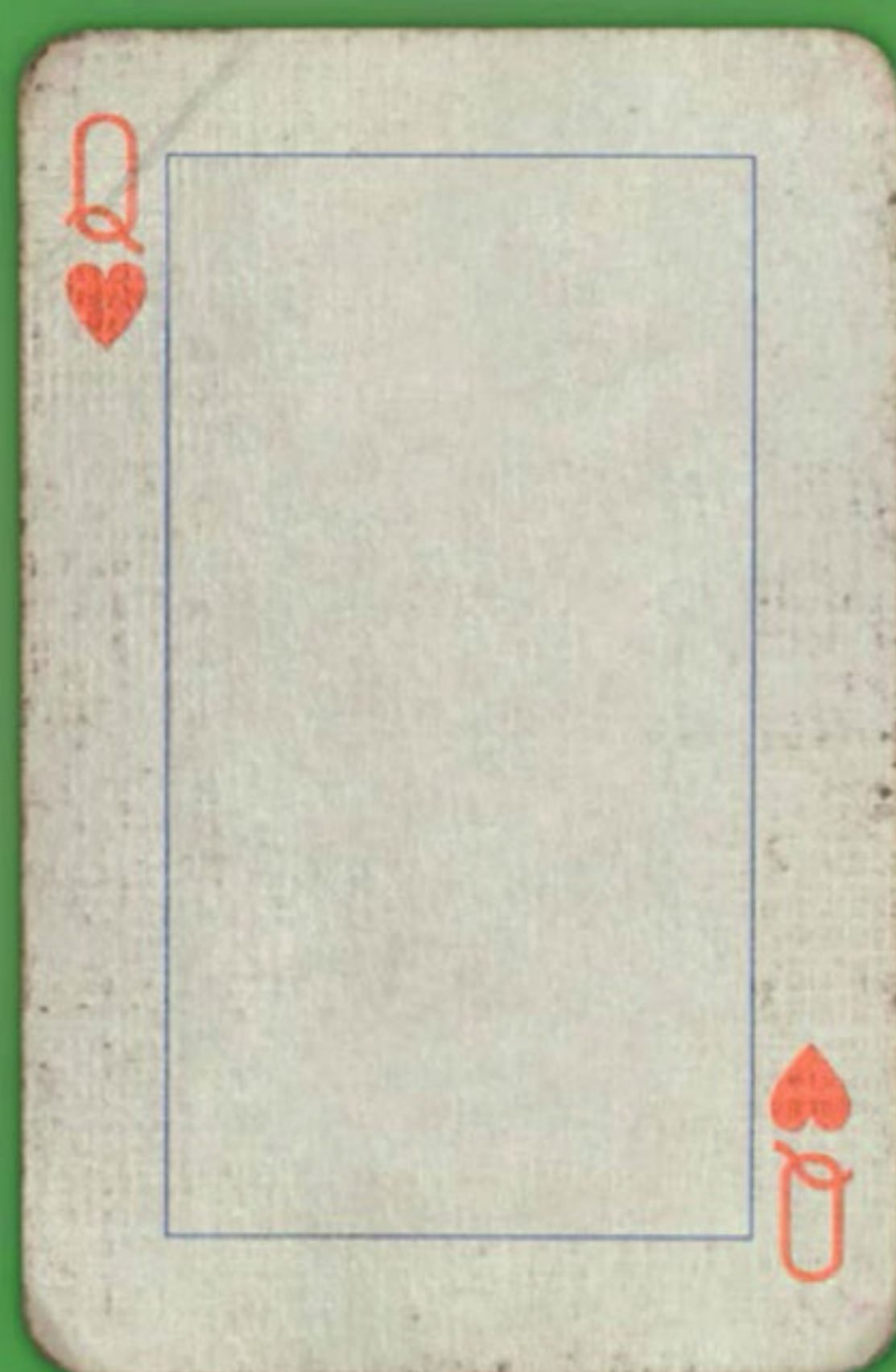
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