

PROJECT 1

www.publicartwalkingtours.ie

This website informs visitors about the selection of Tours on offer from the Public | Art | Walking | Tours Company. The site uses the AngularJS framework with routing and contains two API services (OpenWeather API and Google Maps API) which are used on the site through two directives. It was built using the bootstrap grid layout and is a responsive site that sizes appropriately on phone, tablet or PC. HTML5, CSS, JavaScript and jQuery are also used, along with a PHP script to send an email to the company from the User Form. It is hosted live on the address above and also on a development site at www.databasis.ie/PAWT.

Maria Hynes

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<https://github.com/mariahynes/PAWT>



Contents

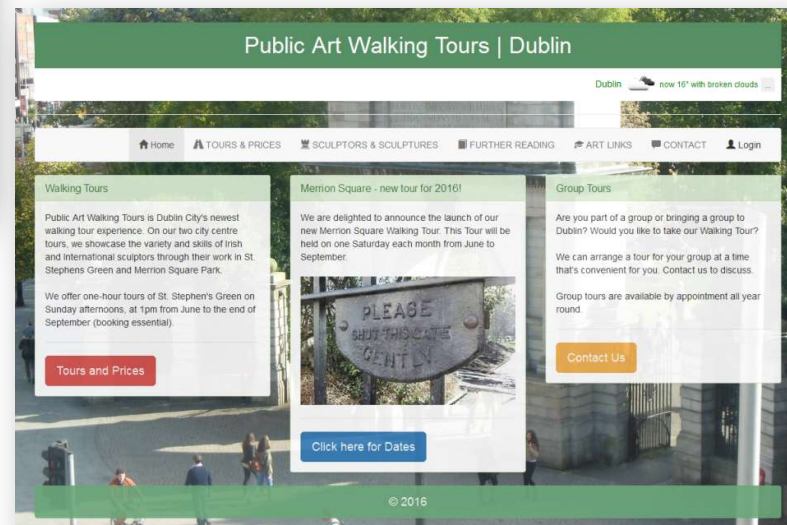
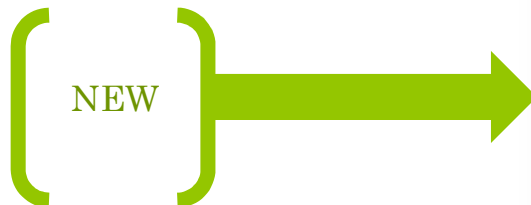
1) THE BRIEF	2
2) MEETING THE BRIEF	3
2.1 Use of Images	3
2.2 Site Navigation	4
2.3 From Lists to Panels	5
2.4 User Experience.....	7
2.4.1 Information	7
2.4.2 Maps	8
2.4.3 Weather	9
2.4.4 Contact Form	10
3) TESTING	12
3.1 When testing on mobile phone.....	12
3.2 Using one map directive.....	12
3.3 Making a user form	12
3.4 The email should be validated	12
3.5 The user has to re-fill in all fields.....	13
3.6 Panel alignment was incorrect	13
4) FILE STRUCTURE	14
5) CODE REFERENCES.....	15

THE BRIEF

The **Public Art Walking Tours** Company organise walking tours in Stephen's Green in Dublin every summer from June to the end of September. They had an existing presence on the web, but needed a complete upgrade because of two events happening in 2016. They wanted to highlight that they were:

- introducing a new Tour of Merrion Square
- running additional tours in April as part of the One City One Book Festival

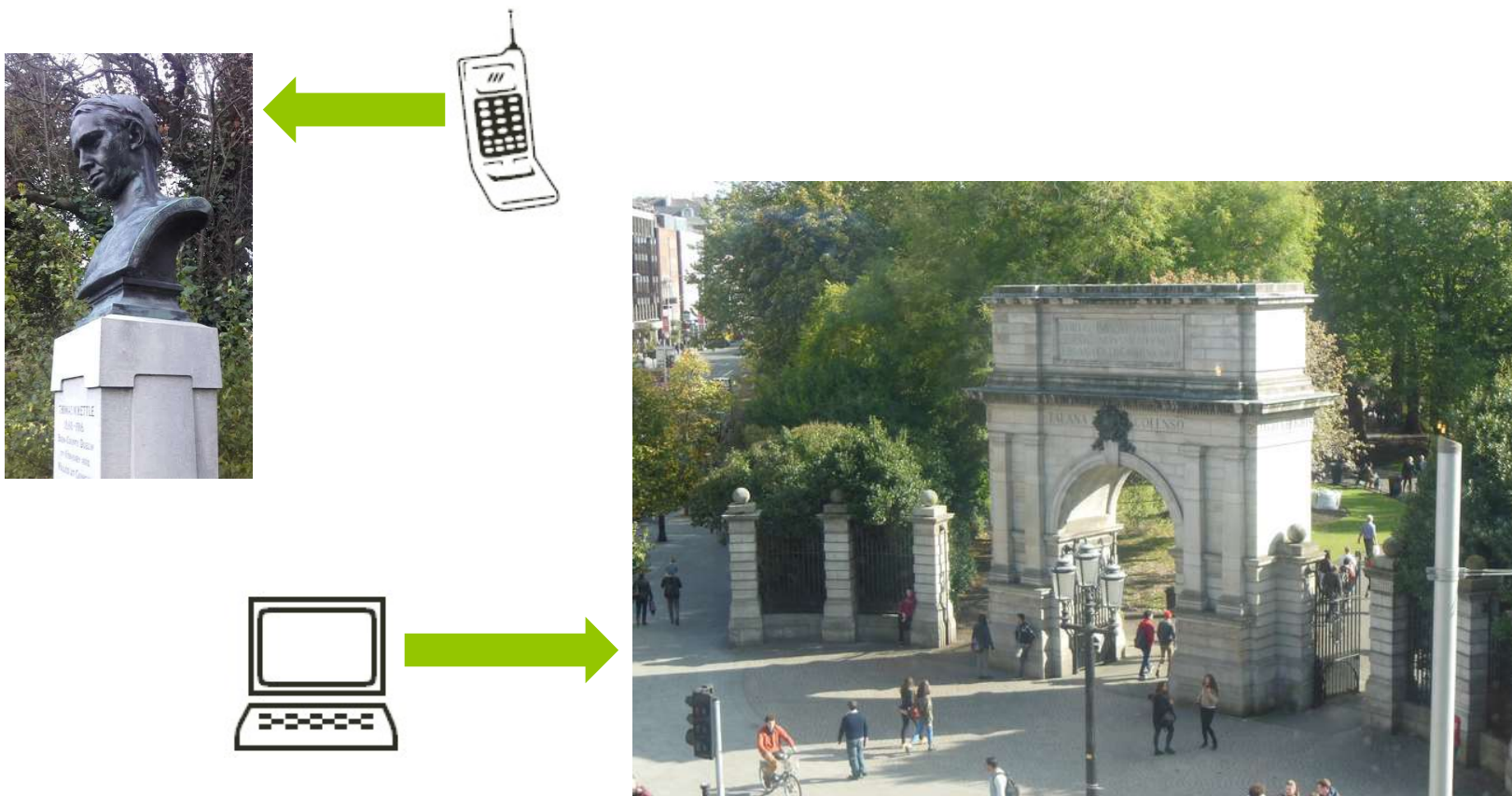
For reference please visit a copy of the previous site at <http://www.databasis.ie/publicartwalkingtours>. This site had been used for almost 5 years and they wanted their new site to look and feel very different whilst retaining the same familiar page headings. I was able to use content from the original site, therefore, as the starting point for the development of the new site. Please note that some content on the site will differ from the screenshots below because the live site has been updated since it was developed for this project.



1) MEETING THE BRIEF

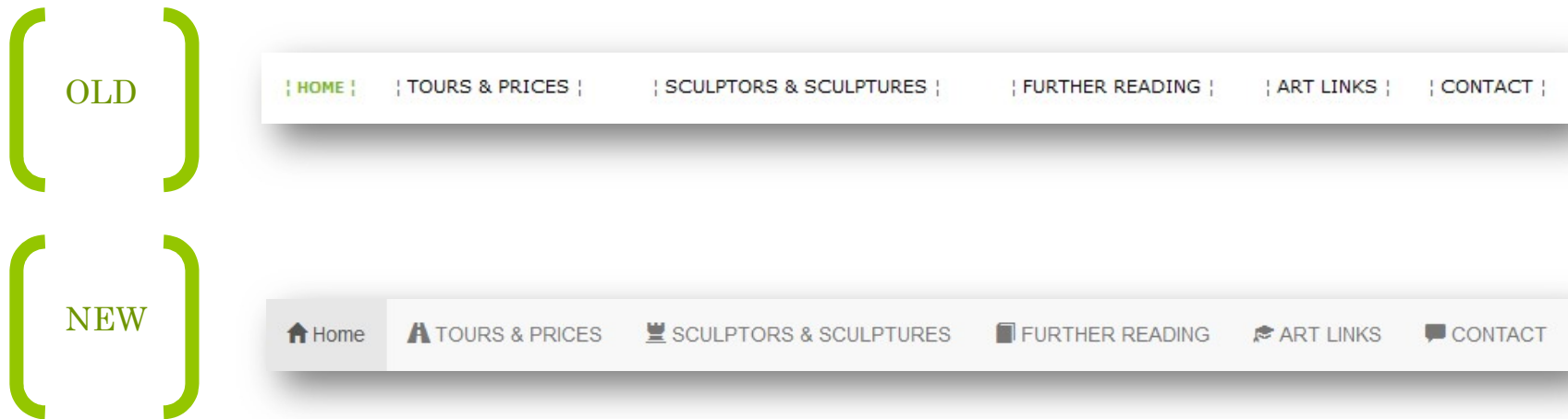
2.1 Use of Images

In order to make the site look and feel different to the original site, the new site uses photographs of St. Stephen's Green that change, using media queriesⁱ, depending on screen size. At its smallest screen size, the background image is a vertical image of a narrow sculpture, whereas on tablet or PC the image is a horizontal view of the entrance to the park. The old site did not use images in this way, having only a white background on all pages.

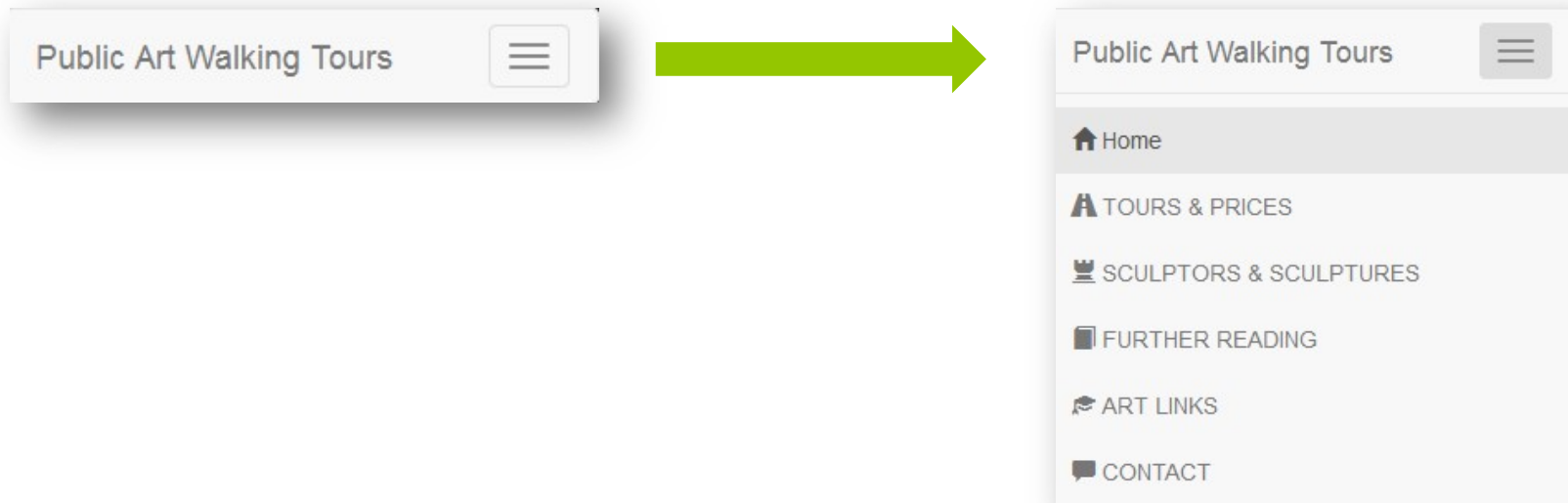


2.2 Site Navigation

The site is grouped under the same pages, but I introduced some bootstrap gyphicons to give a nice addition to the menu bar.



Using a responsive layout also means that on a small screen, the menu bar collapses to show the site name along with the 'Menu' icon. On clicking the 'Menu' icon, the items appear in a drop-down list.



2.3 From Lists to Panels

Much of the original site used lists to display information. For the new site, I laid the information out in Bootstrap Panels to give an improved user-experience, organising the data into clear sections. Where possible I used images in the panels (see next page) to make the content more engaging.

OLD

Useful links for information on Art and Culture in Dublin:

National Gallery of Ireland
www.nationalgallery.ie

Dublin City Gallery | The Hugh Lane
www.hughlane.ie

National Library of Ireland
www.nli.ie

The Royal Hibernian Academy Gallery
www.rha.ie

Chester Beatty Library
www.cbl.ie

Office of Public Works
www.opw.ie

Irish Arts Review
www.irishartsreview.com

Irish Museum of Modern Art
www.imma.ie

www.dublinculturetrail.ie

Dublin Culture Night
www.culturenight.ie

The Little Museum of Dublin
www.littlemuseum.ie

NEW

Galleries

- Dublin City Gallery | The Hugh Lane
www.hughlane.ie
- Irish Museum of Modern Art (IMMA)
www.imma.ie
- National Gallery of Ireland
www.nationalgallery.ie
- The Royal Hibernian Academy Gallery
www.rhagallery.ie

Museums

- Chester Beatty Library
www.cbl.ie
- National Library of Ireland
www.nli.ie
- The Little Museum of Dublin
www.littlemuseum.ie

Cultural Interest

- Dublin Culture Night
www.culturenight.ie
- IMMA Shop
www.theimmashop.com
- Irish Arts Review
www.irishartsreview.com
- Office of Public Works
www.opw.ie
- The Royal Institute of the Architects of Ireland
www.riai.ie

OLD

Suggestions for further reading:

Breaking the Mould: A Story of Art and Ireland

Eamon Delaney
New Island Books, 2009

Irish Public Sculpture: A History

Judith Hill
Four Courts Press, 1998

Dictionary of Irish Artists 20th Century (2nd edition)

Theo Snoddy
Merlin Publishing, 2002

By the Way: A Selection of Public Art in Ireland

Ann Lane
Wordwell Books, 2010

Frink (Biography of Elisabeth Frink)

Stephen Gardiner
Harper Collins, 1998

A City Guide to Sculpture in Dublin

Sculptors' Society of Ireland
SSI, 1999

St. Stephens Green, Dublin 1660-1875

Desmond McCabe
OPW, 2011

Nineteenth-Century Irish Sculpture: Native Genius Reaffirmed

Paula Murphy
Yale University Press, 2010

Stone Mad

Seamus Murphy
Collins Press, 2007 (reprint)

A History of Ireland in 100 Objects

Fintan O'Toole
Royal Irish Academy, 2013 (see also www.100objects.ie)

www.theimmashop.com

NEW



2.4 User Experience

2.4.1 Information


The original site only mentioned the times and dates of the Tour on the Home Page. In the new site, I decided to repeat this information on the Tours and Prices page and formatted it using Bootstrap Tables. This makes the information clear and concise and is a much more effective way to organise the data. Now the user can find all relevant information on the same page.

Welcome to Public Art Walking Tours!

Public Art Walking Tours is Dublin City's newest walking tour experience. On our two city centre tours, we showcase the variety and skills of Irish and International sculptors through their work in St. Stephens Green and Merrion Square Park.

We offer one-hour tours on Sunday afternoons, at 1pm, from June to October. Group tours are available all year round.

For further details, please see the 'Tours & Prices' section of this website.



OLD

NEW

St. Stephen's Green			
Month	Dates	Time	Day
June	12th and 26th	1pm	Sunday
July	10th and 24th	1pm	Sunday
August	21st and 28th	1pm	Sunday

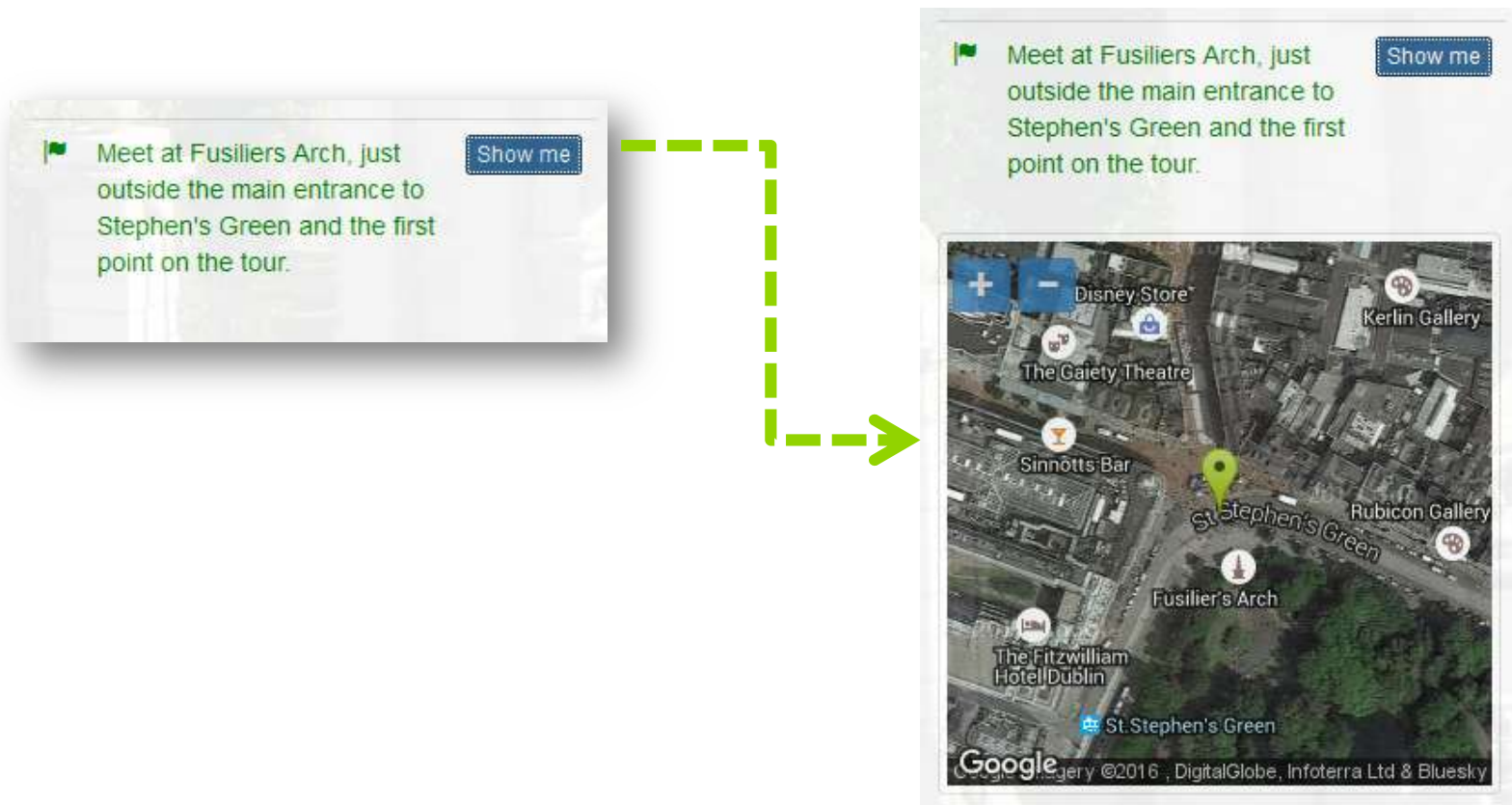
The St. Stephen's Green tour (booking essential) consists of 13 sculptures all located within the park. One of these works is not accessible by wheelchair.

Merrion Square Park			
Month	Date	Time	Day
July	30th	1pm	Saturday
August	13th	1pm	Saturday
September	10th	1pm	Saturday

There are 11 sculptures on the Merrion Square Park Tour (booking essential) as well as the Rutland Memorial and a collection of old Dublin lampposts.

2.4.2 Maps

New visitors to Dublin would be considered the most typical profile of user to the website. Visitors to the city may not be familiar with the streets or the landmarks and so as not to lose a potential customer, I wanted to make it as easy as possible for someone to attend a tour. With this in mind I enhanced the meeting-point section using Google Maps to show, with one click, where *exactly* to meet on the first point on each of the Tours. Clicking on [Show me] reveals a map, hidden until needed. Using a transition affect, this map slides down and back up as needed. A user can also easily zoom in and out using the +/- map controlsⁱⁱ.



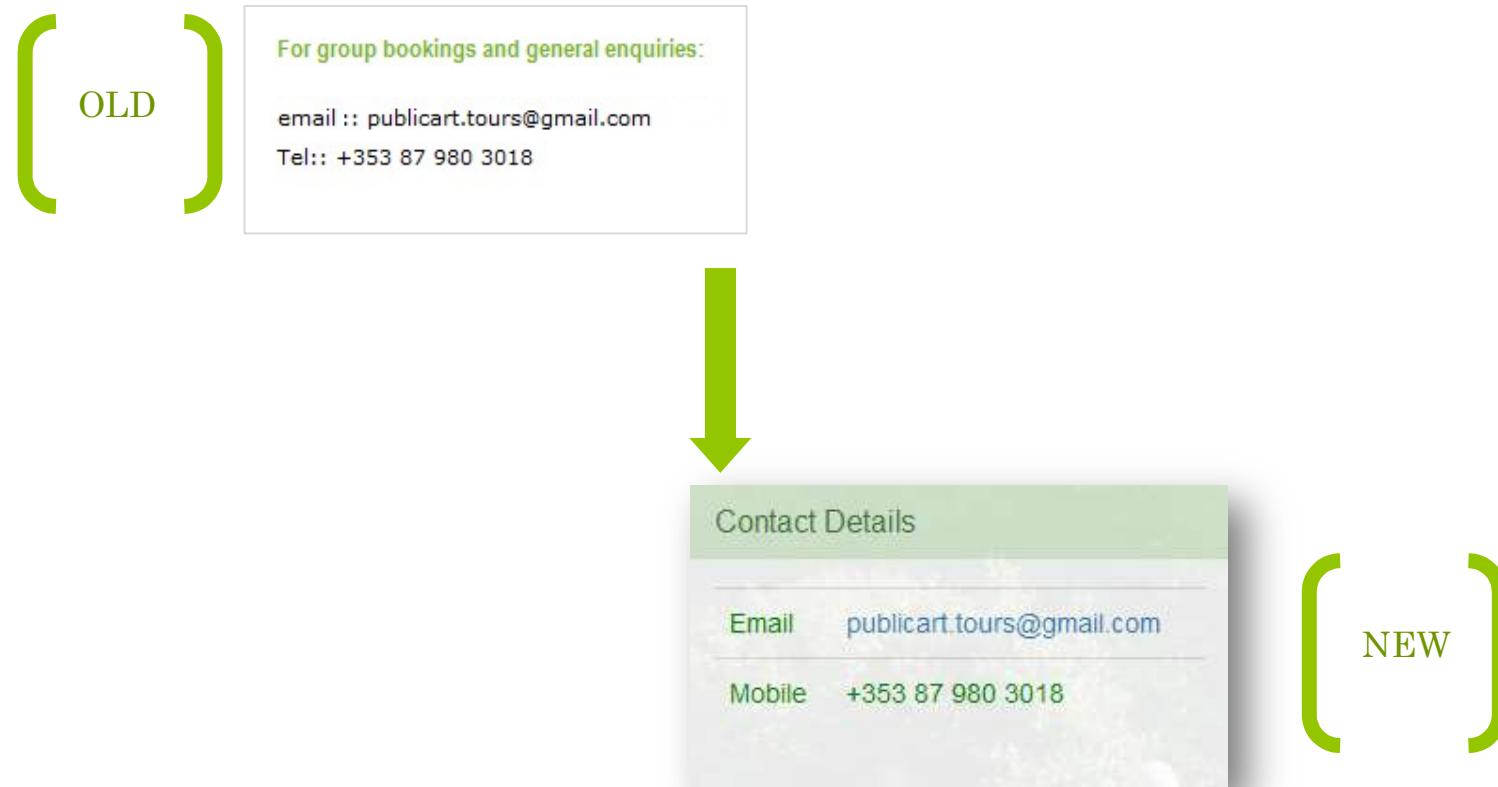
2.4.3 Weather

A handy feature for anyone planning an outdoor weekend event is to be able to easily check the weather forecast. On the header of each site page, I included a weather service using the OpenWeather APIⁱⁱⁱ <https://openweathermap.org/api>. This provides the user with the current weather at the time the site is accessed and on clicking a small icon it also provides a 5-day forecast. These are programmed as two separate Directives^{iv}.

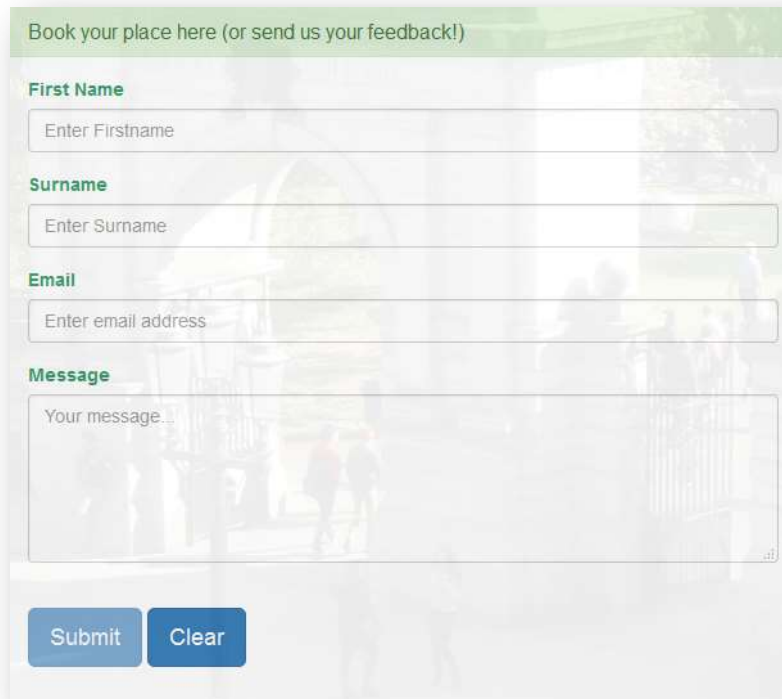


2.4.4 Contact Form

On the previous site, there was no form available for contacting the company. The contact details were listed on the Contacts Page, but there was no quick way to send feedback or seek information without leaving the site. In the new Contacts Page now the user can view the contact details as before (formatted in a clearer Bootstrap table) *or* they have the option of using the new feedback form.



The new feedback form includes validation to ensure no fields are left blank and that the user's email address is correctly entered twice. The field requesting a re-entering of the email address is purposely hidden until the user types into the existing email address field^v. This is so that the user is guided *during* the process when they have already committed to using the form, rather than seeing, at the beginning, too many fields to fill in and possibly being discouraged from using the form.



Book your place here (or send us your feedback!)

First Name
Enter Firstname

Surname
Enter Surname

Email
Enter email address

Message
Your message...


Submit Clear




Email
me@mysite.com

Re-enter Email
Re-enter your email address

The site was deployed on 24th of March so that it would be live in time for the One City One Book Festival in April. The very next day the site had their first booking via this online form!



From: <[redacted]girl0@gmail.com>
Date: 25 Mar 2016 12:19
Subject: Message from your Public Art Walking Tours website
To: <publicart.tours@gmail.com>
Cc: <maria.m.hvnes@gmail.com>



A visitor to your website used the Contact Form to send the following message...

Name: [redacted]
Email: [redacted]girl0@gmail.com
Message: I wish to book a place on tour you are running on Sunday 10th April at 3:00pm.

2) TESTING

I tested this on Firefox, Chrome and Internet Explorer browsers, on a Samsung Tablet, an iPhone and multiple Android phones (Sony/Samsung). The following are a selection of the issues and the solutions I implemented.

3.1 When testing on mobile phone screen the list items on the Menu remained visible on screen even when a menu item was selected. This meant that although the new page content was loaded, the user had no indication that it had loaded and couldn't see any difference until scrolling down. This was because the menu, on a small screen, takes up most of the screen when it is open. I needed to make the Menu list collapse when the user selected an item.

Solution: I added a script to remove the 'in' class from the Nav bar when any link is clicked on the Nav bar^{vi}

3.2 Using one map directive on a page worked perfectly (showing the map on click) until I introduced a second map on the same page. Two maps were needed, one for each Tour. With the code used, clicking to view one of the maps meant that both maps updated because they shared the same id tag.

Solution: While there were many ways to fix this, I chose to solve it by using the transitional affect that when the user clicks the button to open one map, the other map slowly closes. In the background they still both show the same map, but the user only sees one map at a time^{vii}.

3.3 Making a user form that sent an email on Submit. I needed the form to be able to send an email to the Company.

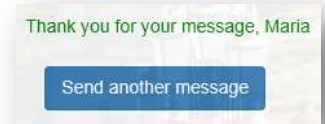
Solution: I used a php script that sends an email to the site admin and I included my own email in the bcc field so that I could monitor the traffic^{viii}. Every tour that was scheduled for the One City One Book tour in April had bookings through this form.

3.4 The email should be validated and not sent until the required information is entered on the form.

Solution: I used AngularJS to provide the validation. It checks to see that there is a message typed in the message-box, that the user email addresses are repeated exactly the same, and that the user has entered a first name and a surname. The Submit button is not activated until all these conditions are met^{ix}.

3.5 The user has to re-fill in all fields, if they want to send a second message.

Solution: On submit of the form the user sees a thank you message with their first name. I included a button with the label, 'Send another message'. If the user clicks this button **all** previous details that they entered (first name, surname and email) are pre-populated. They then only have to enter a new message.

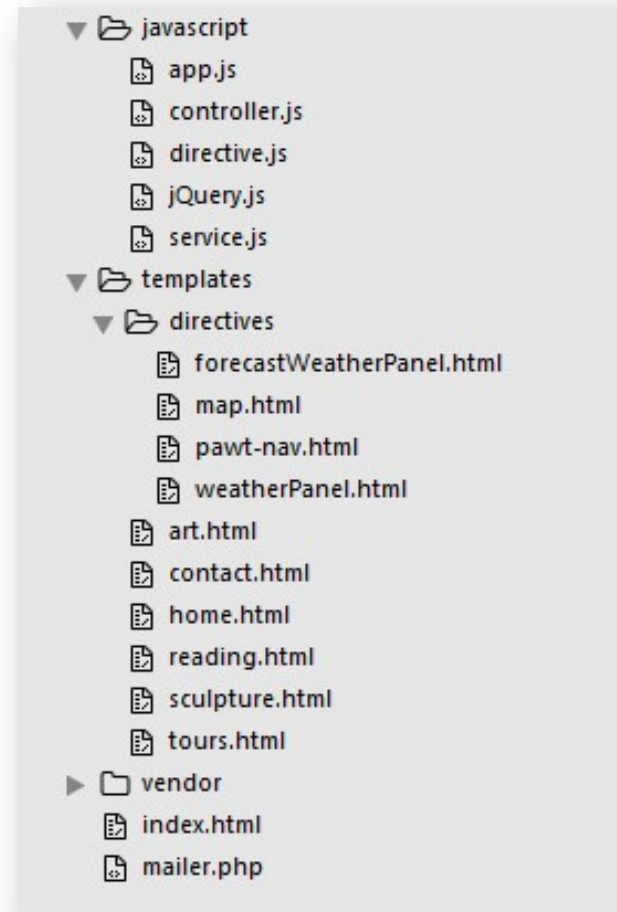


3.6 Panel alignment was incorrect on the 'Further Reading' page on smaller screen sizes, with the use of image panels.

Solution: I used media query and a **repeat** class on each div on the page^x. As a result on all media sizes the top of the panels align in each row:



3) FILE STRUCTURE



4) CODE REFERENCES

i Section of code from *style.css* showing use of media queries for body background images:

```
body {  
  background-repeat: repeat;  
  background-size: 100%;  
  background-position: 0px 0px ;  
  background-image: url('../images/Green_Kettle.png');  
}  
  
/* For devices 400px and larger: */  
@media only screen and (min-width: 400px) {  
  body {  
    background-repeat: no-repeat;  
    background-size: cover;  
    background-position: center;  
    background-image: url('../images/Fusiliers_Arch.jpg');  
  }  
}
```

ii Section of code from *controller.js* and *directive.js* to show the maps in action:

```
$scope.maps = [{  
  address: "53.339858, -6.260632",  
  zoom: 17,  
  width: 300,  
  mapType: "hybrid",  
  key: myMapConfig.mapAPI  
},{  
  address: "53.340082, -6.251452",  
  zoom: 17,  
  width: 300,  
  mapType: "hybrid",  
  key: myMapConfig.mapAPI  
}];
```

```

angular.module('pawtDirectives').directive('makeMap', function() {

    var directive = {
        restrict: 'EA',
        templateUrl: 'templates/directives/map.html',
        scope: {
            map: '=map'
        },
        link: function(scope, element, attrs){
            console.log("in map directive link");
        },
        controller: function mapController($scope) {

            $scope.zoomIn = function(){
                $scope.map.zoom++;
            };
            $scope.zoomOut = function(){
                $scope.map.zoom--;
            };

            $scope.mapDimensions = function() {

                if (!$scope.map.width)
                    var width = 300;
                else
                    width = $scope.map.width;

                if (!$scope.map.height)
                    var height = 300;
                else
                    height = $scope.map.height;

                return width + 'x' + height;
            }

        }
    };

    return directive;
});

```

iii Weather API from *app.js*:

```
//Weather API
angular.module("pawtApp").constant("myWeatherConfig", {
  "currentWeatherURL": "http://api.openweathermap.org/data/2.5/weather?id=2964574&units=metric&mode=json&APPID=",
  "forecastWeatherURL": "http://api.openweathermap.org/data/2.5/forecast?id=2964574&units=metric&mode=json&APPID=",
  "weatherAPI": "1961b9f7fb842bc0630c66e1a95b5109"
});
```

iv Section of code from *directive.js* and *forecastWeatherPanel.html* to demonstrate use of directive:

```
angular.module('pawtDirectives').directive('forecastWeatherPanel', function() {
  return {
    restrict: 'E',    // E -> element
    scope: {
      forecastList: '=info2' // 'movie' set with 'info' attribute
    },
    templateUrl: 'templates/directives/forecastWeatherPanel.html',
    controller: function WeatherController($scope, WeatherService, myWeatherConfig){

      var url_forecast = myWeatherConfig.forecastWeatherURL + myWeatherConfig.weatherAPI;
      $scope.forecastList = [];
      $scope.loading_forecast = true;

      WeatherService.getWeather(url_forecast).then(
        function(result_forecast){
          $scope.forecastList = result_forecast;
          $scope.loading_forecast = false;
          console.log("Forecastlist " + $scope.forecastList);
        }
      ).catch(
        function(error_forecast) {
          console.log("error forecast", error_forecast);
          console.log("Forecastlist error " + $scope.forecastList);
        }
      );
    }
  };
});
```



```

<div ng-repeat = "forecast in forecastList" ng-if="forecast.city.name === 'Dublin'">

  <style>

    #day {
      color: #535353;
      font-weight: bold;
    }
    #desc{
      font-size:x-small;
      color: #535353;
      font-weight: bold;
    }
    td {
      color:green;
    }
  </style>
  <table class="table-responsive">
  <tbody>
  <tr>

    <td ng-repeat = "list in forecast.list | filter : '12:00:00' ">

      <table class="table-condensed">
      <tbody>
      <tr>
        <td id="day" align="center">{{list.dt*1000 | date: 'EEE'}}</td>
      </tr>
      <tr>
        <td align="center">
          
        </td>
      </tr>
      <tr>
        <td align="center">{{list.main.temp | number:0 }}&deg;</td>
      </tr>
      <tr>
        <td id="desc" align="center">{{list.weather[0].description }}</td>
      </tr>
      </tbody>
      </table>

    </td>

  </tr>
  </tbody>
  </table>
</div>

```

v Section of code from *contact.html* showing how 'email2' field is hidden until 'email' field is valid:

```
<div class="form-group" ng-if = "feedback_form.email.$valid && submitted == false">
    <label>Re-enter Email</label>
    <input class="form-control"
        type="email"
        placeholder="Re-enter your email address"
        name="email2"
        id = "email2"
        ng-model="user.email2"
        ng-minlength=5
        ng-maxlength=40
        required />
</div>
```

vi Section of code from *index.html* to collapse menu list on smaller screens:

```
<script>
$(document).ready(function(){
    $(document).on('click', '#myNavbar a', function(e) {
        $("#myNavbar").removeClass("in");//.addClass("collapse");
    });
});
</script>
```

vii Section of code from *tours.html* showing map transition:

```
<script>
$(document).ready(function(){
    $("#showGreen").click(function(){
        $("#mapGreen").fadeToggle();
        $("#mapMerrion").hide('fast');
    });

    $("#showMerrion").click(function(){
        $("#mapMerrion").fadeToggle();
        $("#mapGreen").hide('fast');
    });
});
```

viii PHP mail script (*mailer.php*):

```
<?php

$to = "publicart.tours@gmail.com";
$subject = "Message from your Public Art Walking Tours website";
$name_field = $_POST['firstname'];
$surname_field = $_POST['surname'];
$email_field = $_POST['email'];
$message = $_POST['message'];
$fullname = $name_field . " " . $surname_field;

$message = wordwrap($message,70);

$headers = "MIME-Version: 1.0" . "\r\n";
$headers .= "Content-type:text/html;charset=UTF-8" . "\r\n";

$headers .= "From: " . $email_field . "\r\n";
$headers .= "Cc: maria.m.hynes@gmail.com" . "\r\n";

$body_message = "
    <html>
    <head>
    <title>Message from your Public Art Walking Tours website</title>
    </head>
    <body>
    <p>A visitor to your website used the Contact Form to send the following message...</p>
    <table>
    <tr>
    <td>Name:</td>
    <td>". $fullname."</td>
    </tr>
    <tr>
    <td>Email:</td>
    <td>". $email_field."</td>
    </tr>
    <tr>
    <td>Message:</td>
    <td>". $message."</td>
    </tr>
    </table>
    </body>
    </html>";

echo "Data has been submitted to $to!";
mail($to, $subject, $body_message, $headers);

?>
```

ix Section of code from *controller.js* showing form validation:

```
$scope.feedbackForm = function(feedbackForm){

    if(feedbackForm.$valid){

        if($scope.user.email === $scope.user.email2){

            $scope.errorEmail = "";
            $scope.emailsMatch = true;

            $http({
                method : 'POST',
                url : 'mailer.php',
                data : $.param($scope.user), // pass in data as strings
                headers : { 'Content-Type': 'application/x-www-form-urlencoded' } // set the headers so angular passing info as form data
            })
            .then(function mySuccess(response){

                $scope.submitMessage = "Thank you for your message, " + $scope.user.firstname;
                $scope.submitted = true;

            }, function myError(response){

                $scope.submitMessage = "Sorry, " + $scope.user.firstname + ", your message did not send";
                $scope.submitted = true;

            });

        }
        else{
            $scope.errorEmail = "Sorry, your email addresses do not match.";
            $scope.submitted = false;
            $scope.emailsMatch = false;
        }
    }
    else{
        $scope.submitted = true;
        $scope.errorEmail = "";
        $scope.submitMessage = "Sorry, your message is not valid.";
    }
};
```

× Section of code from *style.css* and *reading.html* to align panels:

```
/* Portrait tablets and small desktops col-sm*/
@media (min-width: 768px) and (max-width: 991px) {
  div.repeat:nth-child(3n+1){ clear: both}
}

/* Landscape phones and portrait tablets col-xs*/
@media (max-width: 767px) {
  div.repeat:nth-child(2n+1){ clear: both}
}

/* Portrait phones and smaller col-xs*/
@media (max-width: 480px) {
  div.repeat:nth-child(2n+1) { clear: both}
}
```

```
<div class = "row panel-group">
  <div class="panel-group">

<div class='repeat'>
  <div class="col-md-2 col-sm-4 col-xs-6">
    <div class="panel panel-success ">
      <div class="panel-heading">Breaking th
      <div class="panel-body">Eamon Delaney
```