The Protected Urban Planet App
“PUP Sight Guide”: Amsterdam as Case Study

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PUP Sight Guide

- **Differentiator:**
  a travel buddy for walking city tours

- **Primary task:**
  sightseeing, exploring a World Heritage Property

- **Target audience:**
  app for people who like using smartphones
Motivation

❖ Not everyone likes traveling in a large group

❖ Everyone has different interests when visiting a city:
  • general visitors versus visitors interested in certain topics, etc.

❖ ... but not everyone can afford an individual tour guide

❖ No time to prepare in advance, e.g. business traveller scenario
Motivation

Limitations of existing mobile audio guides:
- offering only *pre-defined static* tours
- no interests storage between the visits
- separate apps for various cultural heritage places i.e. different museums & cities
- separate apps for *Android*, *iOS*, etc., *platform-dependent* solutions
This work is based on the results of the CHIP project (Cultural Heritage Information Personalization)

- Rijksmuseum Amsterdam, the Cultural Heritage partner
- offers a prototype of the personalized museum tour
  http://www.chip-project.org/demo

We apply the same ideas in the outdoor environment

- Amsterdam as a case study, a World Heritage City
- example tour of the 17th-century canal area of Amsterdam
  http://www.chip-project.org/cityguide/sightguide
# User Profile in CHIP

## Topics I Like
- Rembrandt van Rijn
- Peter the Great
- Vermeer, Jan
- Chiaroscuro
- Steen, Jan

## Topics I Do Not Like
- Militias
- Bronze

### Creation Sites
- 5 Amsterdam
- 1 Haarlem
- 1 Jingdezhen
- 1 Unknown

### Creators
- 8 (missing this field)

### Material Medium
- 1 Marble
- 5 Oil paint
- 1 porcelain, decorated in underglaze blue
- 1 Various woods, tortoiseshell, tin, glass, marble, paper, copper, stone, silk, velvet

### Material Support
- 1 Panels
- 3 Unknown
- 4 Unprimed canvas

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**8 Artwork(s)**

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Creator Details</th>
<th>Material Medium</th>
<th>Material Support</th>
<th>Year of Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Self Portrait as the Apostle St Paul</td>
<td>Creator:</td>
<td>Oil paint</td>
<td>Unprimed canvas</td>
<td>1661</td>
</tr>
<tr>
<td>2</td>
<td>The Mill at Wijk-bij-Duurstede</td>
<td>Creator:</td>
<td>Oil paint</td>
<td>Unprimed canvas</td>
<td>c. 1670</td>
</tr>
<tr>
<td>3</td>
<td>Children Teaching a Cat to Dance, known as 'The Dancing Lesson'</td>
<td>Creator:</td>
<td>Oil paint</td>
<td>Panels</td>
<td>c. 1665-68</td>
</tr>
</tbody>
</table>
Example Tour Through the Museum

[Diagram of museum floor plan with rooms labeled R1 to R15 and areas such as Ground Floor, First Floor, Museum Shop, etc.]
Approach

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Amsterdam As Case Study

The 17th-century canal ring area of Amsterdam inside the Singelgracht

Claus & Swart, 2012
Example Tour Through the City

http://www.chip-project.org/cityguide/
Online visit to the museum or city website

User profile

Onsite visit to the physical museum or city (with mobile app)
Visiting Amsterdam

Central Station

Royal Palace/Town Hall

Rijksmuseum

Same building

Same style
Dutch
Renaissance

Same architect
Cuypers

The Town Hall on the Dam, Amsterdam

Interior with Women beside a Linen Chest

Visiting Rijksmuseum
Usage Scenario: New to ‘PUP Sight Guide’

http://www.chip-project.org/cityguide/sightguide
Usage Scenario: New to ‘PUP Sight Guide’

Select tour to follow:
- Tour of recommended artworks

5 Points of interest
- 

25 Minutes
- 

Adapt Tour? 

http://www.chip-project.org/cityguide/sightguide
Usage Scenario: New to ‘PUP Sight Guide’

http://www.chip-project.org/cityguide/sightguide
Implementation and Usage

- Web-based tool (Java, HTML5)
- Open-source Apache License (v. 2)
- GPS-enabled (future work)

Can be used by any:
- art expert or city tour guide for adding/visualizing their content
- programmer/designer for adjusting the software to specific museum/city needs
Authoring an App

1. Description of the points of interest/artworks in the city/museum (RDF model)

**The Town Hall on the Dam, Amsterdam**

*Description*

Amsterdam town hall is pictured here in bright sunlight in all its glory. The building was designed by Jacob van Campen. The first stone was laid in 1646, after the signing of the Treaty of Munster. Van Campen left the technical execution of the building and its completion to the city architect, Daniel Stalpaert. The enormous classical building became famous even before it was completed in about 1700. The building soon became known as the ‘eighth wonder of the world’. This painting, made by Gerrit Berckheyde in 1672, emphasises the general admiration of Van Campen’s architecture. Berckheyde has filled the canvas almost entirely with the building. To liven up the painting he has placed a group of figures and a horse in the foreground.
Authoring an App

2. Set up a quiz page to quickly discover visitor’s interests
Conclusions/Future Work

- Using the mobile city guide not only to share but also to collect information
- An ontology needs to be built on World Heritage
- ..., etc.
- Finally, we plan to perform user studies on the usability of the (improved) version of the PUP Sight Guide