# The Blue Mountain Springs APIs

1. [Springs](#springs-article)
   1. [Overview](#ov)
   2. [Magazines](#magazines)
   3. [Issues](#issues)
   4. [Constituents](#constituents)
   5. [Constituent](#constituent)
   6. [Contributors](#contributors)
   7. [Contributions](#contributions)
2. [IIIF](#iiif-article)
   1. [Overview](#ov-iiif)
   2. [Collections and Manifests](#iiif-collections-manifests)

## Overview

Blue Mountain Springs 1.0 provides a simple model of Blue Mountain's resources:

* Blue Mountain contains a collection of *magazines*.
* Magazines contain *issues*.
* Issues contain *constituents* attributed (via *bylines*) to *contributors*.

Contributors are known entities (personal or corporate); bylines are strings denoting contributors. API users should be sure they understand this distinction.

The root of the Blue Mountain Springs service is http://bluemountain.princeton.edu/exist/restxq/springs/. Local installations must define their own service roots.

## Top Level

A representation of the API itself. See the [RESTXQ 1.0 Specification](http://exquery.github.io/exquery/exquery-restxq-specification/restxq-1.0-specification.html#rest-resource-functions%0A%20) for details about the format.

### Try It

* [springs/api](../../restxq/springs/api)

## Magazines

A representation of the magazines in Blue Mountain. If no bmtnid is given, the service returns a representation of all the magazines. If a bmtnid is supplied, it returns a representation of the corresponding magazine.

* [springs/magazines](../../restxq/springs/magazines)
* [springs/magazines/bmtnaap](../../restxq/springs/magazines/bmtnaap)
* curl -H'Accept: text/csv' http://bluemountain.princeton.edu/exist/restxq/springs/magazines
* curl -H'Accept: application/json' http://bluemountain.princeton.edu/exist/restxq/springs/magazines
* curl -H'Accept: application/json' http://bluemountain.princeton.edu/exist/restxq/springs/magazines/bmtnaap

### text/csv

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | text/csv | magazines/bmtnid? |

Response conforms with RFC\_4180, where the record fields are as shown.

|  |  |
| --- | --- |
| field | type |
| bmtnid | xs:string |
| primaryTitle | xs:string |
| primaryLanguage | a delimited string of ISO 632-2 codes |
| startDate | w3cdtf |
| endDate | w3cdtf |
| issues | xs:anyuri |

### application/json

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | application/json | magazines/bmtnid? |

Response: JSON object with the properties shown.

|  |  |
| --- | --- |
| property | type |
| bmtnid | xs:string |
| primaryTitle | xs:string |
| primaryLanguage | a delimited string of ISO 632-2 codes |
| startDate | w3cdtf |
| endDate | w3cdtf |
| issues | xs:anyuri |

## Issues

The issues/ service returns representations of magazine issues. The service behaves differently depending on the kind of resource that is requested:

1. if the resource is an issue, the service returns a representation of the issue.
2. if the resource is a magazine, the service returns representations of all the issues of that magazine.

* [springs/issues/bmtnaap](../../restxq/springs/issues/bmtnaap)
* [springs/issues/bmtnaap\_1921-11\_01](../../restxq/springs/issues/bmtnaap_1921-11_01)

### application/json

If the resource is an issue, the service returns a representation of the issue.

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | application/json | issues/*issueid* |

Response

|  |  |
| --- | --- |
| property | type |
| bmtnid | xs:string |
| title | xs:string |
| volume | xs:string |
| number | xs:string |
| pubDate | w3cdtf |
| pubPlace | xs:string |
| editors | list of editor objects |
| contributors | list of contributor objects |
| contributions | lists of Illustration, TextContent, SponsoredAdvertisement, and MusicalScore objects where applicable |

If the resource is an magazine, the service returns a representation of each of the issues in the magazine.

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | application/json | issues/*magid* |

Response

|  |  |
| --- | --- |
| property | type |
| bmtnid | xs:string |
| primaryTitle | xs:string |
| primaryLanguage | xs:string |
| startDate | w3cdtf |
| endDate | w3cdtf |
| uri | uri |
| issues | a list of issue objects   |  |  | | --- | --- | | property | type | | id | xs:string | | date | w3cdtf | | uri | uri | |

### application/tei+xml

For large issues and large magazine runs, this service will return very large data sets in Blue Mountain 1.0. A future version will use status 413 to indicate an excessively large response and compress the response before transmission or implement status 207 to coordinate partial file tranfers.

If the requested resource is an issue, return a TEI document representing the issue.

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | application/tei+xml | issues/*issueid* |

#### Response

A TEI XML document. See <http://www.tei-c.org>

If the requested resource is a magazine, return a TEI corpus document representing the full run of the magazine. This can be very large.

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | application/tei+xml | issues/*magid* |

#### Response

A teiCorpus XML document. See <http://www.tei-c.org>

### text/plain

For large issues and large magazine runs, this service will return very large data sets in Blue Mountain 1.0. A future version will use status 413 to indicate an excessively large response and compress the response before transmission or implement status 207 to coordinate partial file tranfers.

If the requested resource is an issue, return a bag of words for the issue.

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | application/tei+xml | issues/*issueid* |

#### Response

A text blob

If the requested resource is a magazine, return a bag of words representing the full run of the magazine. This can be very large.

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | application/tei+xml | issues/*magid* |

#### Response

A bag of words

### application/rdf+xml

In Blue Mountain version 1.0, this service is aimed primarily at the MODNETS aggregator, and it provides an RDF representation that complies with its requirements: COLLEX-flavored RDF.

see <http://www.modnets.org/> and <http://wiki.collex.org/index.php/Submitting_RDF>

This format supports only issues.

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | application/rdf+xml | issues/*issueid* |

#### Response

An RDF object serialized as XML.

## Constituents

The addressable portions of the magazine issues -- articles, illustrations, advertisements -- are the issue's constituents. They are represented in two ways:

1. descriptive metadata about the constituent is encoded in the teiHeader as a relatedItem with an xml id attribute;
2. the full text of the constituent (if it is a textual constituent) is encoded in a div element linked to the metadata element with a corresp attribute.

The constituents service returns representations of the metadata or the full text, depending on the content type requested.

### application/json

If JSON is requested, the constituents/ service delivers a JSON-based representation of the metadata.

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | application/json | constituents/*issueid* |

Response: an issue object with the properties below.

|  |  |
| --- | --- |
| property | type |
| id | xs:string |
| date | w3cdtf |
| url | url |
| constituent+ | |  |  | | --- | --- | | property | type | | issueid | xs:string | | constituentid | xs:string | | uri | uri | | title | xs:string | | contributor+ | |  |  | | --- | --- | | property | type | | byline | xs:string | | contributorid | xs:string | | |

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | application/json | constituents/*magid* |

Response: one or more issue objects with the properties below.

|  |  |
| --- | --- |
| property | type |
| id | xs:string |
| date | w3cdtf |
| url | url |
| constituent+ | |  |  | | --- | --- | | property | type | | uri | uri | |

## Constituent

Delivers a representation of an individual constituent in an issue in Blue Mountain.

Missing in Blue Mountain Springs 1.0: a JSON representation of a constituent. Workaround: extract the JSON constituent from the issue.

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | text/plain | constituent/issueid/constid |

A plain-text blob

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | application/tei+xml | constituent/issueid/constid |

A TEI-encoded fragment

## Contributors

Get representations of contributors to magazines or issues in Blue Mountain. If bmtnid is that of an issue, returns a representation of all the contributors to that issue; if bmtnid is that of a magazine, returns a representation of all contributors to the magazine in all issues.

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | text/csv | contributors/bmtnid |

Response

|  |  |
| --- | --- |
| field | type |
| bmtnid | xs:string |
| label | xs:string |
| contributorid | xs:string |
| byline | xs:string |
| constituentid | xs:string |
| title | xs:string |

Request

|  |  |  |
| --- | --- | --- |
| Method | Accept Header | URL |
| GET | application/json | contributors/bmtnid |

Response

|  |  |
| --- | --- |
| property | type |
| bmtnid | xs:string |
| label | xs:string |
| contributorid | xs:string |
| byline | xs:string |
| constituentid | xs:string |
| title | xs:string |

## Contributions

Get representation of contributions to a magazine having a particular byline. If the request is for JSON, returns a representation of the metadata for all the contributions; if the request is for TEI, returns a TEI Corpus containing the full text of all the contributions.

Request

|  |  |  |  |
| --- | --- | --- | --- |
| Method | Accept Header | URL | Parameters |
| GET | application/json | contributions | byline |

Response

|  |  |
| --- | --- |
| property | type |
| title | xs:string |
| byline+ | xs:string |
| language+ | xs:string |
| issue | xs:string |
| constituentid | xs:string |
| uri | xs:anyURI |

Request

|  |  |  |  |
| --- | --- | --- | --- |
| Method | Accept Header | URL | Parameters |
| GET | application/tei+xml | contributions | byline |

#### Response

A teiCorpus document

## IIIF Presentation API

### Overview

The Blue Mountain Springs service delivers text and metadata representations of objects in Blue Mountain. The IIIF service complements the Springs service; it delivers *visual* representations of Blue Mountain's resources by implementing the [IIIF Presentation API](http://iiif.io/api/presentation/2.1/).

In Blue Mountain Springs 1.0, the IIIF implementation supports the two major IIIF resources, *Collections* and *Manifests*. These two resources are sufficient to enable the display of Blue Mountain's magazines in IIIF-compliant viewing software. It has been tested with [Mirador](https://github.com/ProjectMirador/mirador) and the [Universal Viewer](https://github.com/universalviewer).

### Collections and Manifests

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Method | Accept Header | URL | Response | Example |
| GET | application/json | iiif/collection/top | A IIIF collection object representing all the resources in Blue Mountain | [iiif/collection/top](../../restxq/iiif/collection/top) |
| GET | application/json | iiif/collection/*magid* | A IIIF collection object representing a particular title in Blue Mountain. | [iiif/collection/bmtnaap](../../restxq/iiif/collection/bmtnaap) |
| GET | application/json | iiif/*issueid*/manifest | A IIIF manifest object representing a particular issue in Blue Mountain. | [iiif/bmtnaap\_1921-11\_01/manifest](../../restxq/iiif/bmtnaap_1921-11_01/manifest) |