A new frontend for VIVO

Hector Correa / hector_correa@brown.edu
Steven McCauley / steven_mccauley@brown.edu
Brown University Library
A new frontend for VIVO

Hector Correa / hector_correa@brown.edu
Steven McCauley / steven_mccauley@brown.edu
Brown University Library
VIVO @ Brown

In production since 2014

4000+ researcher profiles

150,000 pageviews/month (Google Analytics)
Why a new frontend?

Users have expressed

- Not very user-friendly
- Plain/boring look and feel
- Not very functional for their needs (i.e. discovery)

Technology-wise

- Use technologies we are comfortable with (Ruby on Rails)
- Allows us to innovate faster
Current Web Site

http://vivo.brown.edu
Welcome to Researchers@Brown

Researchers@Brown brings together, in one site, publicly available information on the people, departments, and activities that collectively make up research and scholarship in all disciplines at Brown University.

For FACULTY:
- You may have harvested publications pending approval. Click "Manage your profile" -> "Publications" -> "Manage publications".
- Check out the new "Geographic Research Area" section which uses a standard set of geographic terms.
- Coming soon! Optional network visualizations

For DEVELOPERS:
- The R@8 team has developed a JSON web service that makes it easy to use data from Researchers@Brown in other websites.

Please provide feedback or request help by contacting researchers@brown.edu. Visit our Help pages for further information.
Search results for 'caribbean history'

Caribbean history | Research Area
------------------|------------------

**HIST 0971L – Modern Caribbean History** | Course

Latín America and Caribbean Studies
... Director of Latin American and Caribbean Studies To foster greater knowledge, teaching and research on the cultures, societies, history, politics, economics ...

The Journal of Latin American and Caribbean Anthropology | Venue
... of Adoption in Latin America Book Review: Negras in Brazil: Re-envisioning Black Women, Citizenship, and the Politics of Identity The Peru Reader: History ...

Medical History | Venue
... Venue:Julia E. Rodríguez (ed.), History of Science in Latin America and the Caribbean Digital Archive (Durham: University of New Hampshire, 2010) (www ...

Julia E. Rodríguez (ed.), History of Science in Latin America and the Caribbean Digital Archive (Durham: University of New Hampshire, 2010) | Article
... Article Citation Lambe, Jennifer Medical History 618-619 10.1017/mdh.2012.72 04 Lambe, Jennifer S6 2012-10-01 ...

The Peru Reader: History, Culture, Politics | Article
... Article Citation Leinaweaver, Jessica The Journal of Latin American and Caribbean Anthropology 277-279 10.1525/lat.2007.12.1.277 1 Leinaweaver, Jessica E. 12 ...

Henry, Paget | Faculty Member
... and Ethnic Relations, Caribbean History and Society; Sociology of the Arts; Sociology of Cultural Development; Seminar on Critical Theory ...

Rodriguez, Daniel | Faculty Member
... of Latin America, 1492-2014 HIST 2930 – Colloquium Latin America and the Caribbean PhD History Daniel • Mendenhall Fellowship (Smith College, 2012) • Mellon ...

Lambe, Jennifer | Faculty Member
... Intimate Histories of Psychiatry and Self Latin American and Caribbean HIST 1830M – From Medieval Bedlam to Prozac Nation: Intimate Histories of Psychiatry and Self ...
Search results for 'caribbean history' limited to type 'people'

**Henry, Paget**  |  Faculty Member  
... and Ethnic Relations; Caribbean History and Society; Comparative Colonial Cultures; Sociology of the Arts; Sociology of Cultural Development; Seminar on Critical Theory ...

**Rodriguez, Daniel**  |  Faculty Member  
... of Latin America, 1492-2014 HIST 2930 – Colloquium Latin America and the Caribbean PhD History  
Daniel • Mendenhall Fellowship (Smith College, 2012) • Mellon ...

**Lambe, Jennifer**  |  Faculty Member  
... Intimate Histories of Psychiatry and Self Latin American and Caribbean HIST 1830M – From Medieval Bedlam to Prozac Nation: Intimate Histories of Psychiatry and Self ...

**Bogues, Barrymore**  |  Faculty Member  
... Philosophical Association International Intellectual History Association Caribbean Studies Association Center for Caribbean Thought Caribbean Social History Project ...

**Fisher, Linford**  |  Faculty Member  
... in America, 1865 – Present PhD Anglophone Caribbean Decoding Roger Williams: The Lost Essay of Rhode Island’s Founding Father Native North America Caribbean history ...

**Channer, Colin**  |  Faculty Member  
... - Remaster + Remix Iron Balloons Kingston Noir Reggae music BA Caribbean poetry interdisciplinary arts cinema Rhode Island Humorous monologues colinchanner.com 2016 ...

**Johnson, Jasmine**  |  Faculty Member  
... and History; Association for the Study of the Worldwide African Diaspora; Caribbean Studies Association; Collegium for African Diaspora Dance; Congress on Research ...

**Whitfield, Esther**  |  Faculty Member  
... ’s Program in History and Literature before joining the faculty of Brown's Department of Comparative Literature in 2002. She teaches courses on Latin American, Caribbean ...

**Martinez, Monica**  |  Faculty Member  
... ), Department of Latino and Hispanic Caribbean Studies, Rutgers University, 2012–2013 Comparative Border Studies Fellowship (declined), Arizona State University, 2012–2013 Best ...
Itohan I. Osayimwese | Assistant Professor of History of Art and Architecture

Itohan Osayimwese is an architectural and urban historian. She is Assistant Professor of History of Art & Architecture. She engages with theories of modernity, postcoloniality, and globalization to analyze German colonial architecture, urban design, and visual culture; modern architecture in Germany; African and African diaspora material cultural histories; and the architecture of development in Africa. Another research interest is the architectural and urban lives of religious cults.

Brown Affiliations

History of Art and Architecture

Research Areas

19th and 20th century global architectural history | African and African diaspora material culture | Caribbean history | colonial architecture and urbanism | missionary architecture | modern architecture

Publications

selected


New Web Site

(private URL, requires VPN)
Researchers @ BROWN

Search for an Expert...

Advanced search...

Recent faculty books
Click book jacket to view faculty profile
Researchers@Brown

Type

PEOPLE (34)

Affiliations

American Studies (6)
Africana Studies (5)
History (5)
Anthropology (4)
Hispanic Studies (3)
Sociology (3)
Comparative Literature (2)
Epidemiology (2)
French Studies (2)
History of Art and Architecture (2)

More...

Research Areas

Caribbean (5)
Brazil (4)
Latin America (4)
Cuba (3)
Ethnic Studies (3)
North America (3)

Previous | 1 - 20 of 34 search results | Next
for caribbean history (Type > PEOPLE)

Rodriguez, Daniel
Assistant Professor of History

Lambe, Jennifer
Assistant Professor of History

Fisher, Linford
Associate Professor of History

Leinaweaver, Jessaca
Associate Professor of Anthropology, Director of Outreach and Engagement

Hu-Dehart, Evelyn
Professor of History, Professor of American Studies

Osayimwese, Itohan
Assistant Professor of History of Art and Architecture
Osayimwese, Itohan
Assistant Professor of History of Art and Architecture
History of Art and Architecture

Overview
Itohan Osayimwese is an architectural and urban historian. She is Assistant Professor of History of Art & Architecture. She engages with theories of modernity, postcoloniality, and globalization to analyze German colonial architecture, urban design, and visual culture; modern architecture in Germany; African and African diaspora material cultural histories; and the architecture of development in Africa. Another research interest is the architectural and urban lives of religious cults.

Brown Affiliations
History of Art and Architecture

Research Areas
19th and 20th century global architectural history | African and African diaspora material culture | Caribbean | Caribbean history | colonial architecture and urbanism | Germany | missionary architecture | modern architecture | West and East Africa
Features

- Same information as standard VIVO
- Modern look and feel
- Optimized for discovery
  - Focus on finding researchers
  - Affiliations, alum of, et cetera issue searches for other researchers
  - Faceted search (affiliation, research areas, publication venue)
  - Focus on common users' needs
  - Tuned our Solr index, spell checker, faster response times
- Mobile friendly
- Fast performance
Examples

- Publication filter ([link](#))
- Complete profile ([link](#))
  - Alumni of ([link](#))
  - Appointments ([link](#))
  - Export to JSON-LD / Turtle via VIVO ([link](#))
System Architecture

Developer requirements

- Decouple frontend interface from backend datastore
- Better performance
- Easier, faster updates and development
- Less complexity, more collaboration
System Architecture: current setup

- Manager (Django App)
- Data Service (Flask App)
- VIVO
  - Java App
  - Fuseki
  - Solr

- general public
- editors
- developers
System Architecture: future setup

- Manager (Django App)
- Data Service (Flask App)
- New frontend (Rails App)
- VIVO
  - Java App
  - Fuseki
  - Solr

- general public
- editors
- developers
System Architecture: application APIs

VIVO APIs

- Writing: VIVO internals
- Querying: Fuseki
- SPARQL Query/Update APIs
- Frontend API should be simple and fast
System Architecture: frontend API

Solr as VIVO API

- Bundled with VIVO
- Highly configurable
- Built for search and speed
- Live updates
- Query via HTTP
- Delivers denormalized JSON documents

https://wiki.duraspace.org/pages/viewpage.action?pageId=55902741
System Architecture: configuration and workflow

Solr configuration

- Solr schema
- Solr integrates standalone scripts: more data processing, validation
  - [https://wiki.apache.org/solr/ScriptUpdateProcessor](https://wiki.apache.org/solr/ScriptUpdateProcessor)

VIVO configuration

- rdf/display/ everytime/searchIndexerConfigurationVitro.n3
- SPARQL queries against triplestore generate data for Solr fields
System Architecture: SPARQL queries

```sparql
PREFIX rdfs:<http://www.w3.org/2000/01/rdf-schema#>
PREFIX local:<http://vivo.brown.edu/ontology/vivo-brown/>

SELECT DISTINCT ?json
WHERE {
  ?uri local:hasAffiliation ?aff .
  BIND(replace( "\"uri\":\"aff\\", ', 'aff', str(?aff) ) as ?uriStr)
  BIND(replace( "\"id\":\"aff\\", ', 'aff', str(?aff) ) as ?idStr)
  BIND(replace( "\"name\":\"aff\\", ', 'aff', str(?label) ) as ?nameStr)
  BIND(concat( '{', ?uriStr, ?idStr, ?nameStr, '}') as ?json)
}
```
System Architecture: SPARQL queries
System Architecture: SPARQL queries

```sparql
PREFIX rdfs:<http://www.w3.org/2000/01/rdf-schema#>
PREFIX blocal:<http://vivo.brown.edu/ontology/vivo-brown/>
SELECT DISTINCT ?json
WHERE {
    ?uri blocal:hasAffiliation ?aff .
    BIND(replace( '"uri":"aff",', 'aff', str(?aff) ) as ?uriStr)
    BIND(replace( '"id":"aff",', 'aff', str(?aff) ) as ?idStr)
    BIND(replace( '"name":"aff",', 'aff', str(?label) ) as ?nameStr)
    BIND(concat( '{', ?uriStr, ?idStr, ?nameStr, '}') as ?json)
}
```
System Architecture: SPARQL queries

```sparql
PREFIX rdfs:<http://www.w3.org/2000/01/rdf-schema#>
PREFIX blocal:<http://vivo.brown.edu/ontology/vivo-brown/>
SELECT DISTINCT ?json
WHERE {
    ?uri blocal:hasAffiliation ?aff .
    BIND(replace( "\"uri\":\"aff\",\"aff\", str(?aff) ) as ?uriStr)
    BIND(replace( "\"id\":\"aff\",\"aff\", str(?aff) ) as ?idStr)
    BIND(replace( "\"name\":\"aff\",\"aff\", str(?label) ) as ?nameStr)
    BIND(concat( '{', ?uriStr, ?,idStr, ?nameStr, '}') as ?json)
}
```
System Architecture: Solr documents

"research_overview": "The Anti-Trafficking Rehabilitation Complex My book manuscript in Assistant Professor of American Studies",
"title_t": [
  "Assistant Professor of American Studies"
],
"affiliations_json": [
  "http://vivo.brown.edu/individual/org-brown-univ-dept3",
  "http://vivo.brown.edu/individual/org-brown-univ-dept3"
],
"alumni_of": [
  "Pomona College",
  "University of California, Los Angeles"
],
"teacher_for": [
  "DEVL 1500 - Methods in Development Research",
  "AMST 1600B - Global China: Flows, Forces, and Friction",
  "AMST 1500A - Research and Transnational Communities: Qualitative Fieldwork Methods",
  "AMST 1600C - The Anti-Trafficking Savior Complex: Saints, Sinners, and Modern-Day Slavery"
],
"on_the_web_json": [
  "http://vivo.brown.edu/individual/nea6ec2d6-d754-11e5-abdf-005056aa66a3",
  "http://www.elenashih.org",
]
System Architecture: VIVO as backend

- Minimal updates to VIVO installation
  - Solr indexing configuration
  - Reassign URLs: from VIVO pages to Rails app

- Preserve VIVO's built-in data services
  - http://.../individual/{id}/{id}.ttl (exports Turtle)
  - http://.../individual/{id}/{id}.jsonld (exports JSON-LD)
  - SPARQL Query/Update APIs

- Standalone APIs still available
  - Fuseki
  - R@B REST service

- VIVO for database administration
System Architecture: future steps

At Brown

- Move from standalone Fuseki to SPARQL Query/Update APIs
- Smarter SPARQL queries, better JSON handling
- Leverage inferencing and maintenance queries

VIVO community

- Easier configuration of Solr fields
- Focus on Solr integration, staying up-to-date with latest versions
- Development of modules that hook up to VIVO APIs
Benefits (users)

- Targets users' different needs
  - ...mainly discovery
  - ...while preserving our Linked Data options

- Good design makes a big difference
  - Thanks Symplectic for the inspiration in VIVO 2016
  - Thanks to our designers: Crystal Brusch and Ben Tyler

- Careful: bad data might become (more) visible
Benefits (technical)

- Familiar technologies for the team
  - Ruby on Rails
  - Designers can run the site and see their changes locally

- Easier to update the frontend
  - Push a new release without touching the VIVO backend

- Hard division between public and not-public data

- Keeps VIVO data capabilities intact
If you are going to customize VIVO (and you will)... 

*your frontend and your backend don't* 

*have to be the same*
Future enhancements

- Visualizations
- Built-in access to common queries
  - e.g. who has published in the last 12 months
- Connect to other systems within the university/library
- Document how to reuse our code (Rails + Solr config)
- Exports
  - ... of search results
  - ...individual researcher (make more prominent)
- Organization/affiliation pages
  - ...and others?
Source code
● Available at https://github.com/Brown-University-Library/vivo-on-rails

Questions?
● Contact us
  ○ hector_correa@brown.edu
  ○ steven_mccaulley@brown.edu
Thanks!