

SIMSSA Workshop XVII

Infrastructure for Music Discovery



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Music Technology Area, Schulich School of Music

McGill University

Example queries:

Not easily answered by Google, Wikipedia, and other traditional methods

- ❖ Which music printers were in business in 1481 in Bologna?
- ❖ Which composers were residing in Bologna in 1481?
- ❖ Which composers visited Bologna in 1481?
- ❖ Did any of them have any contact with the resident composers?
- ❖ Which trumpeters were active in Bologna between 1481–86?
- ❖ What events took place in 1481 in Bologna that required musical performance?
- ❖ What pieces requiring trumpets were performed in Bologna in December 1481?



What do Celine Dion and Olivia Newton-John have in common?

- ❖ David Foster (compare Wikipedia entries)
- ❖ Lee Sklar

Posterogs
CONTRIBUTE · COLLECT · BUY · SEL


Olivia Newton-John – Making A Good Thing Better

Label: [MCA Records](#) – 321 682-2
 Format: CD, Album
 Country: Germany
 Released: 2001
 Genre: Rock, Pop
 Style: Pop Rock, Ballad

[More Images](#)

Tracklist

	Hide Credits
1	Making A Good Thing Better 3:44
Arranged By [Strings]	– James Newton-Howard*
Backing Vocals	– Julia Rinker*, Laura Creamer, Myrna Matthews
Bass	– Lee Sklar*
Conductor [Strings]	– James Newton-Howard*
Drums	– Jeff Porcaro
Electric Guitar	– Jay Graydon, John Farrar
Percussion	– Jeff Porcaro, Joe Porcaro
Piano	– Greg Mathieson
Written-By	– Peter Wingfield*



Discography Browser



Stream or buy on:



Release Date	January 4, 2000
Duration	22:13
Genre	Pop/Rock
Styles	Adult Contemporary Soft Rock
Recording Location	Cheiron Studios, Stockholm, Sweden DreamHouse Studios, London, England Hit Factory, New York, NY Paradise Sounds, FL The Record Plant, Los Angeles, CA

[Submit Corrections](#)

Céline Dion
That's the Way It Is

[Add to Custom List](#) [Add to My Collection](#)

AllMusic Rating

User Ratings (1)

Your Rating

[Overview](#) [User Reviews](#) [Credits](#) [Releases](#) [Similar Albums](#)

Credits

Artist	Credit
Kenny Aronoff	Drums
David Ashton	Engineer
Chris Brooke	Assistant Engineer, Engineer
Andreas Carlsson	Composer, Vocals (Background)
Luis Conte	Percussion
Céline Dion	Primary Artist
John Doelp	Executive Producer
Matthew Freeman	Production Coordination
Humberto Gatica	Mixing, Vocal Engineer
John Gilutin	Keyboards, Piano
Andy Haller	Engineer
Leah Haywood	Vocals (Background)
Nana Hedin	Vocals (Background)
Tal Herzberg	Transfers
Tomas Lindberg	Bass
Kristian Lundin	Composer, Engineer, Keyboards, Producer, Programming
Vito Lopruno	Executive Producer
Max Martin	Composer, Engineer, Keyboards, Producer, Programming, Vocals (Background)
Esbjörn Öhrwall	Guitar
Valerie Pack	Production Coordination
Brian Rawling	Producer, Remixing
Matt Serletic	Arranger, Orchestration, Producer
Leland Sklar	Bass

Digital Musical Objects

- ❖ Scores: symbolic files, images
- ❖ Audio
- ❖ Video
- ❖ Album covers
- ❖ Program notes
- ❖ Performance data: recording info, concerts
- ❖ Iconography
- ❖ Experimental results
- ❖ Bibliographies: papers, articles, presentations
- ❖ Biographies: composers, performers, producers, engineers
- ❖ Compositional process: (sketches)
- ❖ Current news



Subject guides

> Agriculture & environmental sciences

> Art, architecture & urban planning

> Education

> Health & biological sciences

> Humanities & social sciences

> Law

Management & business

▼ Music

> Music special collections

Physical sciences & engineering

Music

Research resources

- [Online scores and indexes](#)
- [Online audio and discographies](#)
 - [Schulich School of Music - Concert Recordings](#) ([VPN connection](#) required off-campus)
- [Online video and film](#)
 - [CIRMMT Distinguished Lecture Series](#)
 - [Research Alive](#)
 - [Schulich School of Music - Concert Recordings](#) ([VPN connection](#) required off-campus)
- [Music literature full-text and bibliographic databases](#)
- [Music dictionaries and encyclopedias](#)
- [Music e-book collections](#)
- [Dissertations and theses for music research](#)
- [Newspapers for music research](#)

Branch library

- [Marvin Duchow Music Library](#)
- [Flipside: Music Library blog](#)
- [Schulich School of Music](#)
- [Suggest a music recording \(audio or video\) purchase](#)
- [Audio/video recording and playback equipment](#)

Key resources

- [McGill WorldCat Discovery Catalogue](#)
- [McGill Classic Catalogue](#)
- [Gertrude Whitley Performance Library](#)

Digital Resources for Musicology

ADAM | EVE

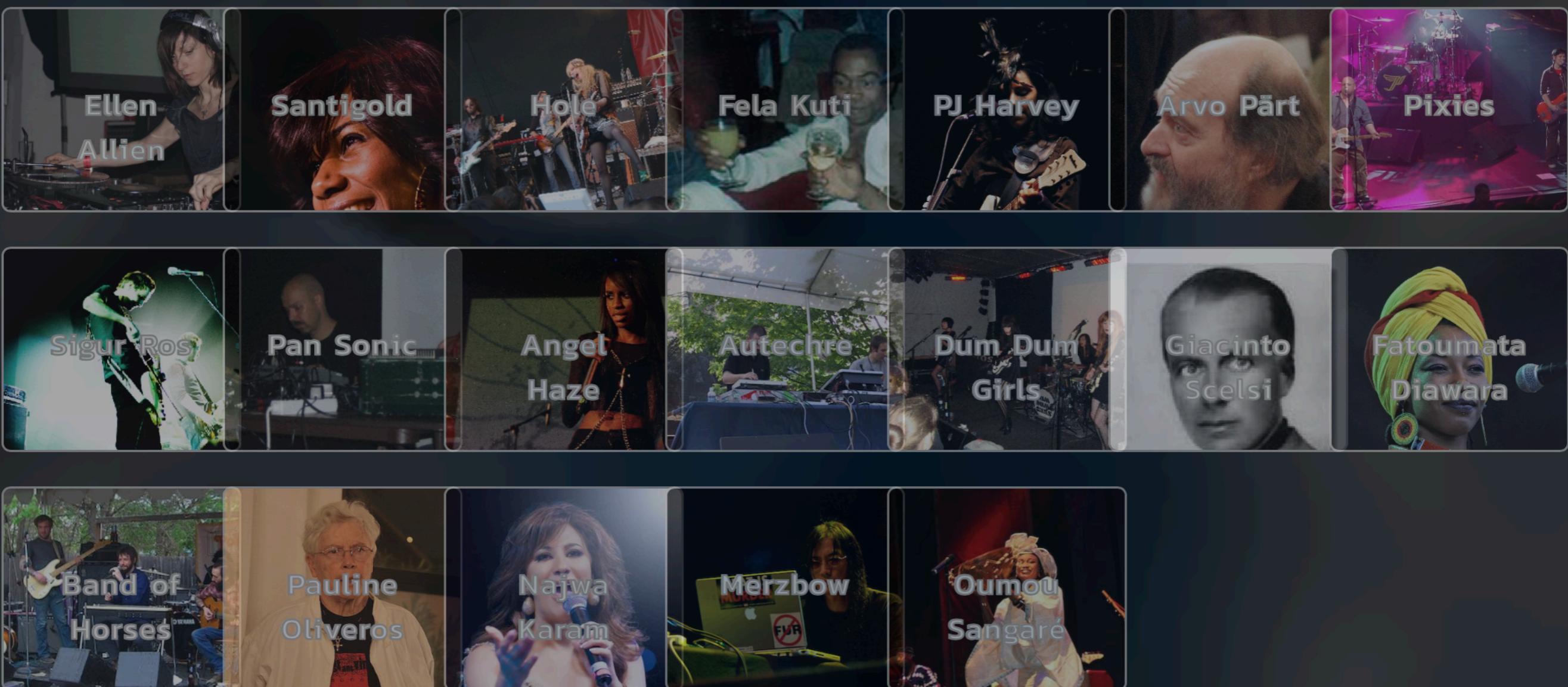
[Submit an entry](#)



MUSICLYNX

 Search by artist

Featured artists





Search

Search 67323 documents from 12 sources.

[>> Pitch Search \(Experimental\)](#)

Selected items

2 Kanons und Fuges, Op.5

The Internet Archive

O quam suavis est Domine spiritus tuus

The Internet Archive

RES-1586 (b)

Bibliothèque nationale de France

VM12-12298

Bibliothèque nationale de France

Impromptu No.2, Op.36

The Internet Archive

3 Airs allemandes, Op.124

The Internet Archive

About

DDMAL

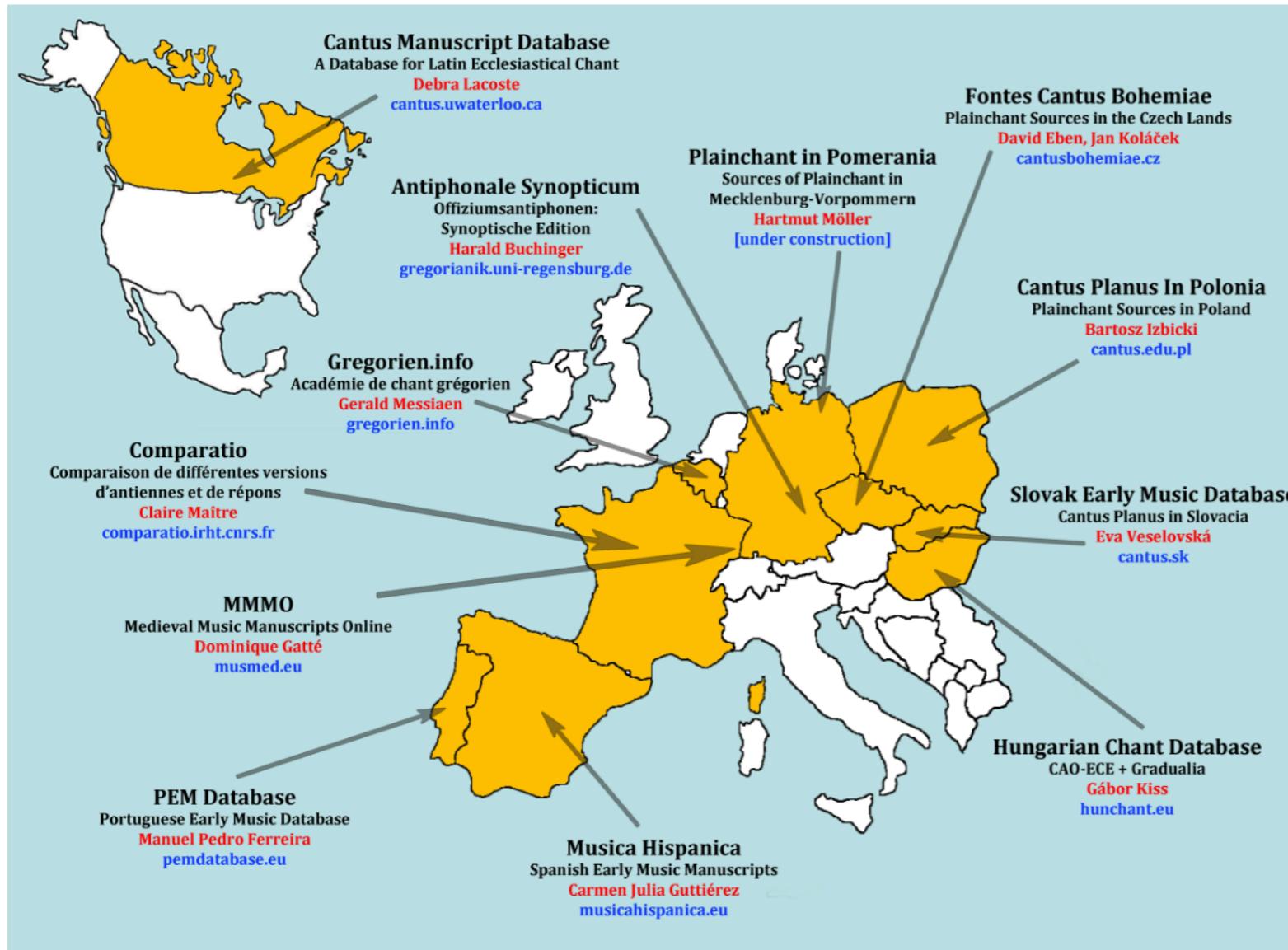
DISTRIBUTED DIGITAL MUSIC
ARCHIVES & LIBRARIES LAB

SIMSSA | Single Interface for Music
Score Searching and Analysis

| Single Interface for Music
Score Searching and Analysis



Cantus Index: Catalogue of Chant Texts and Melodies



Cantus Index is a catalogue of chant texts and melodies for **Office and Mass**. Multiple online medieval music databases have been connected together through unique "Cantus ID numbers". Chant texts and melodies can be searched on this **Cantus Index** website, and matches in any of the partner databases will be returned. **This is your first stop for online chant searches!**

Fulltext search

<input type="text"/> Cantus ID	<input type="radio"/> Genre	<input type="radio"/> Genre (Hispanic)
- Any -	- Any -	- Any -
Search		

Recently added chants

Alleluia Paratum cor meum Deus paratum

AI - g01238.2 | Added by **Elsa De Luca**

2 days 3 hours ago

Domine in auxilium meum aspice

Of - g02305.1 | Added by **Elsa De Luca**

2 days 3 hours ago

Alleluia Quoniam deus magnus dominus et

AI - 507036.1 | Added by **Elsa De Luca**

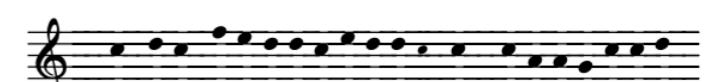
2 days 4 hours ago

Recently added melodies



A - a01714m2 | Added by **Dominique Gatté**

4 months 2 weeks ago



R - a01527 | Added by **John Glasenapp OSB**

= muSO



Music Scholarship Online

Promoting digital scholarship in music



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connectedhistories

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British History Sources, 1500-1900

Connected Histories brings together a range of digital resources related to early modern and nineteenth century Britain with a single federated search that allows sophisticated searching of names, places and dates, as well as the ability to save, connect and share resources within a personal workspace. We have produced this short [video guide](#) to introduce you to the key features.

Connected Histories is a not-for-profit [project](#). We welcome proposals for [new content](#).

Quick search

 Search

Query types: Place Person Keyword

Date range: From To

1500 1550 1600 1650 1700 1750 1800 1850 1900

[More search options](#)

Four new resources have been added

[The Board of Longitude](#), [The Newton Project](#), [Queen Victoria's Journals](#) and [Who were the nuns?](#).

Latest Connections

[History of blackawton](#) [university of cambridge](#) [Wincham](#)
[Torrisholme](#) [John Parke and family](#) 1 more...

Research guides

Our nine [research guides](#) will help you to get the most out of Connected Histories, whatever your interests.

Funded by
JISC

<http://blogs.bodleian.ox.ac.uk/history/2011/04/11/connectedhistories/>

ART CYCLOPEDIA

- [Top 30 Artists](#)
- [Articles](#)
- [Art News](#)
- [Art Museums Worldwide](#)
- [Links](#)
- [About Us](#)
- [Advertise](#)
- [Galleries](#)

Other Resources:

- [ActualSizer](#)
- [November 28 in Art History](#)
- [Glossaries](#)

Art News from Around the World:

- French Report On Cultural Restitution Puts Museums On Edge
- Why It Might Not Be So Easy For France To Return Cultural Treasures
- Two Panels Of Mantegna Painting Reunited For First Time In At Least 300 Years
- Berkshire Museum Says It's Finished Selling Off Art
- India Just Finished The World's Tallest Statue. Now It's Building Two That Are Even Taller

Most Popular Artists Last Month:

1. [Pablo Picasso](#)
2. [Vincent van Gogh](#)
3. [Leonardo da Vinci](#)
4. [Claude Monet](#)
5. [Henri Matisse](#)
6. [Salvador Dali](#)
7. [Rembrandt](#)
8. [Andy Warhol](#)
9. [Georgia O'Keeffe](#)
10. [Michelangelo](#)

[See more...](#)

ArtConversation

Visit Artcyclopedia's online discussion forum



Search Artcyclopedia:



enter artist name

[Artists by Name](#)



enter words in title

[Artworks by Title](#)



enter name or location

[Art Museums](#)



Slideshow:

[Tilt-Shift Van Gogh](#)

Van Gogh's masterpieces, transformed

Browse artists by...

[Name](#) [Medium](#) [Subject](#) [Nationality](#) [Women Artists](#)

Art Movements

- [Abstract Expressionism](#)
- [Academic Art](#)
- [The American Scene](#)
- [Art Deco](#)
- [Art Nouveau](#)
- [Arte Povera](#)
- [The Arts & Crafts Movement](#)
- [The Ashcan School](#)
- [The Barbizon School](#)
- [Baroque Art](#)
- [Bauhaus](#)
- [Byzantine Art](#)
- [Camden Town Group](#)
- [Classicism](#)
- [Contemporary Realism](#)
- [Cubism](#)
- [Dada](#)
- [Der Blaue Reiter](#)
- [Die Brücke](#)
- [Die Neue Sachlichkeit](#)
- [Expressionism](#)
- [Fauvism](#)
- [Futurism](#)
- [Golden Age of Illustration](#)
- [Gothic Art](#)
- [The Group Of Seven](#)
- [The Harlem Renaissance](#)
- [The Hudson River School](#)
- [Impressionism](#)
- [Magic Realism](#)

- [Mannerism](#)
- [Minimalism](#)
- [Les Nabis](#)
- [Neoclassicism](#)
- [Neo-Plasticism](#)
- [Op Art](#)
- [Orientalism](#)
- [Photorealism](#)
- [Pointillism](#)
- [Pop Art](#)
- [Post-Impressionism](#)
- [Precisionism](#)
- [The Pre-Raphaelites](#)
- [Realism](#)
- [Regionalism](#)

The Renaissance

- [Early Renaissance](#)
- [High Renaissance](#)
- [Mannerism](#)
- [Northern Renaissance](#)

The Rococo Style

- [Romanticism](#)
- [The Sensation Show](#)
- [Social Realism](#)
- [Surrealism](#)
- [Symbolism](#)
- [Tonalism](#)
- [Ukiyo-e Printmaking](#)



Slideshow:

[Women Artists of the Renaissance](#)



Infrastructure for Music Discovery

- ❖ What kind of questions, queries?
- ❖ What should the results look like?
 - ❖ List by authors, subjects, works (scores, recordings)
 - ❖ List of non-author people (performers, engineers)
 - ❖ Relationships (tables, graphs)
 - ❖ People
 - ❖ Works
 - ❖ Location

Acknowledgements



Social Sciences and Humanities
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sciences humaines du Canada

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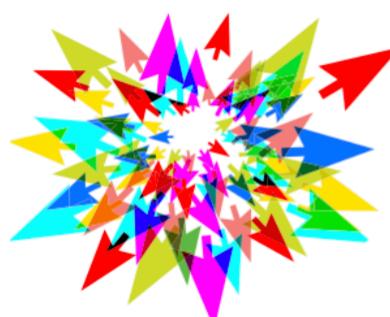
Schulich School of Music
École de musique Schulich

C I R
M M T Centre for Interdisciplinary Research
in Music Media and Technology



**Fonds de recherche
Société et culture**

Québec



compute | **calcul**
canada | canada

WEST GRID

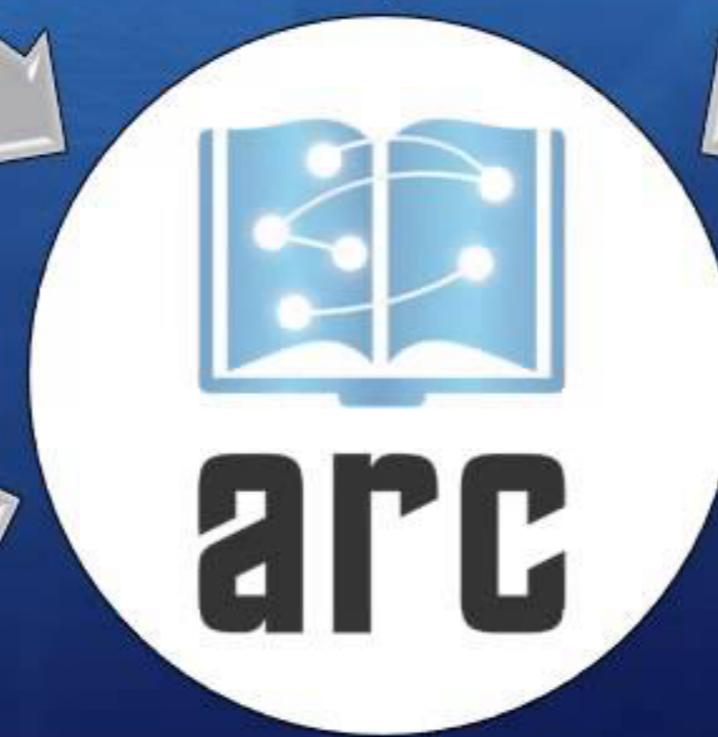
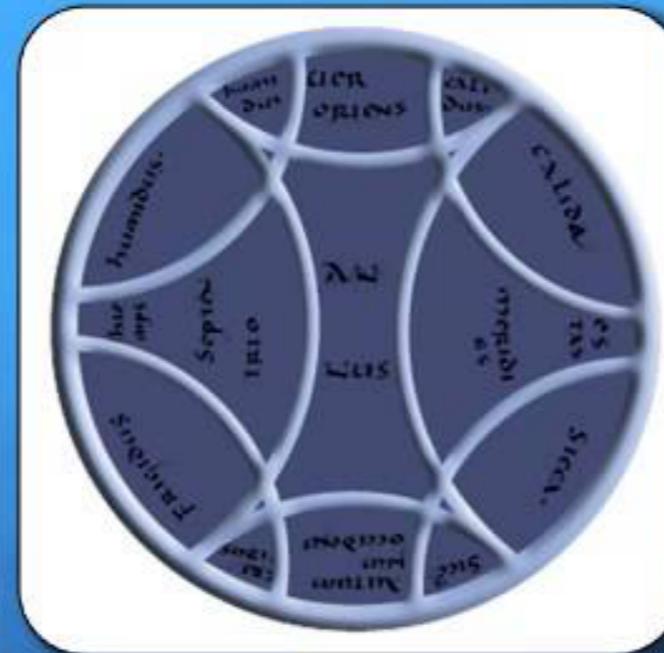
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The Advanced Research Consortium

The Advanced Research Consortium (ARC)

A consortium of scholars committed to advancing research in the humanities through period-specific online communities built around peer-review, aggregation, and searching digital data.



ARC

- ❖ MESA (Medieval Electronic Scholarly Alliance):
University of Pennsylvania & North Carolina State
University
- ❖ 18th Connect: Texas A&M
- ❖ NINES (Networked Infrastructure for Nineteenth-
Century Electronic Scholarship): University of Virginia
- ❖ REKn (Renaissance English Knowledgebase):
University of Victoria
- ❖ MODNETS (Modernist Networks): Loyola University
Chicago



Search artists, albums and more...



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Olivia Newton-John

Profile: English-Australian singer and actress, born 26 September 1948 in Cambridge, England, UK. Mother of [Chloe Lattanzi](#).
AO - Order of Australia
OBE - Officer of the Most Excellent Order of the British Empire

Sites: [olivianewton-john.com](#), [livonmusic.com](#), [morethanphysical.blogspot.com](#), [newtonjohn.blogspot.com](#), [Wikipedia](#), [Facebook](#)

In Groups: [All-Star Group](#), [I Touch Myself Project](#), [Spirit Of The Forest](#), [Toomorrow](#)

Variations: [Viewing All](#) | Olivia Newton-John

[Alivia Newton John](#), [Newton - John](#), [Newton John](#), [Newton-John](#), [O N J](#), [O Newton-John](#), [O. N. John](#), [O. Newton John](#), [O. Newton-Jihn](#), [O. Newton-John](#), [O.N. John](#), [O.N.J.](#), [O.Newton-John](#), [Oliver Newton John](#), [Olivia](#), [Olivia New Ton - John](#), [Olivia Newton](#), [Olivia Newton John](#), [Olivia-Newton John](#), [ONJ](#), [Patricia Miller](#), [Оливия Ньютон-Джон](#), [Оливия Ньютон Джон](#), [オリヴィア・ニュートン=ジョン](#), [オリビア・ニュートン・ジョン](#)

Artist[Edit Artist](#)[Share](#)**Marketplace**[Vinyl and CD](#)

Patricia Miller?

Who is Patricia Miller?

Discogs

Search artists, albums and more... 

Explore Marketplace ▾



More Images

Various – Non-Stop Disco Action

Label: [April Records \(4\) – ALP 3420](#)
Format: [Cassette, Compilation](#)
Country: [Philippines](#)
Released:
Genre: [Electronic, Pop](#)
Style: [Disco](#)

Tracklist

A-1	Love Machine* – Freaky (You Show Me Yours), (I'll Show You Mine)
A-2	Champagne* – Roller Boogie
A-3	Claudja Barry – Made In Hongkong
A-4	Fusion* – Let's Groove
A-5	Ann Margret – Everybody Needs Somebody Sometimes
B-1	Fantasy* – Designer Music
B-2	Electric Reaction* – Domino Dance
B-3	Rick James – Love Gun
B-4	Patricia Miller* – Physical
B-5	Empire (3) – Robotism
B-6	Syreeta – Quick Slick

Life Sciences

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The Project

Vision: Transforming Science through Data-Driven Discovery.

Mission: To design, deploy, and expand a national Cyberinfrastructure for Life Sciences research, and to train scientists in its use.

CyVerse provides life scientists with powerful computational infrastructure to handle huge datasets and complex analyses, thus enabling data-driven discovery. Our extensible platforms provide data storage, bioinformatics tools, image analyses, cloud services, APIs, and more.

CyVerse is funded by the National Science Foundation's Directorate for Biological Sciences. We are a dynamic virtual organization led by the University of Arizona to fulfill a broad mission that spans our partner institutions: Texas Advanced Computing Center, Cold Spring Harbor Laboratory, and the University of North Carolina at Wilmington.

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Plant Science



?2156459 genes in 57 genomes ▾

Gramene is a curated, open-source, integrated data resource for comparative functional genomics in crops and model plant species.

Gramene Portals



Genome Browser

Browse genomes with annotations, variation and comparative tools



Plant Reactome

Browse and analyze metabolic and regulatory pathways



Tools

Tools for processing both our data and yours

Latest News

Announcing Gramene Database release #59 with new and updated plant genomes and pathways
Tue, 06 Nov 2018

Scholarships for PUI faculty for Maize Genome Annotation Jamborees 2019
Mon, 01 Oct 2018

Gramene Pathway Curation Jamboree 7th-10th August, 2018



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MUSIC

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...



Images

- ❖ Album covers (CD, DVD)
- ❖ Photographs / Paintings (persons, location)
- ❖ Graphs
- ❖ Maps
- ❖ Visual Artworks (sculpture)

Text

- ❖ Symbolic scores (MIDI, MuiscXML, MEI, etc.)
- ❖ Document
 - ❖ Research papers
 - ❖ Bibliographies
 - ❖ Wikipedia
 - ❖ News
- ❖ Database (SQL, LOD)
- ❖ Spreadsheets

Media

- ❖ Video
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