

CITY OF STEVENS POINT
PUBLIC PROTECTION COMMITTEE AGENDA
Monday, June 13, 2016 – 6:00 P.M.
(or immediately following previously scheduled meeting)
Lincoln Center, 1519 Water Street

[A quorum of the City Council may attend this meeting]

Discussion and Possible Action on the Following:

1. Election of Vice-Chairperson.
2. License List:
 - A. New Operator's (Bartender's) Licenses.
 - B. Renewal Operator's Licenses.
 - C. Temporary Class "B" / "Class B" (Picnic) License: Portage County Fair/Rosholt Fair Association, P O Box 244, Rosholt, WI, for Jam'n' July on July 23, 2016 at Pfiffner Park. Licensed operator on premise: Katy Bruni. (Beer only)
3. Request to Hold Event/Street Closings:
 - A. Association of Downtown Businesses – Annual 4th of July Parade on July 3, 2016 at 2:00 p.m. Request for closure of a section of Main Street and parking restrictions.
 - B. Association of Downtown Businesses – Annual Discover Downtown event on July 15-16, 2016. Request for closure of a section of Main Street and Third Street and parking restrictions.
 - C. Justiceworks, Ltd. – Annual Justiceworks Half-Marathon and 5K Run/Walk on September 3, 2016. Request for closure of the two westbound lanes on the Clark Street Bridge for 20 minutes at the beginning of the race.
4. Appeal(s) of service charge for property maintenance violation:
 - A. 908 Second Street
5. Adjournment.

RMC – Revised Municipal Code

Any person who has special needs while attending this meeting or needs agenda materials for this meeting should contact the City Clerk as soon as possible to ensure reasonable accommodations can be made. The City Clerk can be reached by telephone at (715) 346-1569 or by mail at 1515 Strongs Avenue, Stevens Point, WI 54481.

Copies of ordinances, resolutions, reports and minutes of the committee meetings are on file at the office of the City Clerk for inspection during normal business hours from 7:30 A.M. to 4:00 P.M.

City of Stevens Point
1515 Strongs Avenue
Stevens Point, WI 54481-3594
www.stevenspoint.com



John Moe
City Clerk
Phone: 715-346-1569
Fax: 715-346-1498

To: Common Council
From: John Moe, City Clerk
Date: June 8, 2016
Re: Public Protection Committee Agenda Items

1. Last month the Council created the position of vice-chairperson for the standing committees. The committee shall take nominations and then vote to determine which member shall serve in this capacity.
2. We have 28 new Operator licenses and 87 renewals. All meet the requirements to hold a license and have been approved by the Police Department. Portage County Fair/Rosholt Fair Association, is requesting a license to sell alcohol at its event. This event has been held before without any issues; however, this is the first time they are requesting to sell alcohol.
3. Before the committee are three requests for street closures and parking restrictions. All three are annual events that have been approved by the Police Department.
4. Property owners that have been issued a service charge for failing to abide by a maintenance order have the right to appeal the service charge to the Council. Before the committee is such an appeal.

LICENSE LIST
PUBLIC PROTECTION COMMITTEE
Monday, June 13, 2016

****PROVISIONAL OPERATOR LICENSE:**

- | | | |
|-----|---------------------------------|--|
| 1. | DAMITZ, KATHRYN A. | 924 SONGBIRD LN APT C8, STEVENS POINT, WI 54482 |
| 2. | JONES-TOVAR, SAMANTHA A. | 2700 5TH AVE APT 27, STEVENS POINT, WI 54481 |
| 3. | WALTON, SARAH I. | 2701 FOREST DR #74, PLOVER, WI 54467 |
| 4. | DAVIES, JASON E. | 111 N HARRISON STREET, WAUPACA, WI 54981 |
| 5. | FLUNKER, MICHELLE L. | 271 PARADISE LN APT 1, PLOVER, WI 54467 |
| 6. | LAWRENCE, BRITTANY M. | 5548 WOODLAND STREET, STEVENS POINT, WI 54482 |
| 7. | BROUWER, HAYLEY M. | 2108 PATCH STREET, STEVENS POINT, WI 54481 |
| 8. | THOMSON, BREANNA K. | 4506 COUNTY ROAD J, STEVENS POINT, WI 54482 |
| 9. | SIEVERT, BRITNAE C. | 3516 BUSH ST APT 7, STEVENS POINT, WI 54481 |
| 10. | WOJTALEWICZ-BAKER, CASSANDRA L. | 3292 CTY RD I, ROSHOLT, WI 54473 |
| 11. | CORAM, APRIL M. | 1430 TORUN RD #222, STEVENS POINT, WI 54482 |
| 12. | KAWLEWKSI, BRIANNA M. | 8124 RUSSELL LANE, ALMOND, WI 54909 |
| 13. | IWEN, TREVOR T. | 1924 COLLEGE AVE, STEVENS POINT, WI 54481 |
| 14. | ANDERSON, ANNA M. | 233 MAPLE STREET, BIRNAMWOOD, WI 54414 |
| 15. | BAUER, JOSHUA C. | 401 MICHIGAN AVE #201D, STEVENS POINT, WI 54481 |
| 16. | BIERTZER, DAN J. | 1200 NORTH POINT DR #C9, STEVENS POINT, WI 54481 |
| 17. | KRUEGER, ABBY L. | 3420 37TH ST SOUTH, WISCONSIN RAPIDS, WI 54494 |
| 18. | NACHTIGALL, LAUREN A. | 1419 CO RD C, STEVENS POINT, WI 54481 |
| 19. | DISHER, JORDAN M. | 3431 EVERGREEN DR, PLOVER, WI 54467 |
| 20. | HEIBLER, MELANIE K. | 2431 CRESCENT CT, PLOVER, WI 54467 |
| 21. | CASEY, SEAN D. | 1200 RIVER VIEW AVE, STEVENS POINT, WI 54481 |
| 22. | MARKOFSKI, ZACHARY J. | 1924 FREMONT STREET, STEVENS POINT, WI 54481 |
| 23. | SOMERS, COLE P. | 1724 STRONGS AVE, STEVENS POINT, WI 54481 |
| 24. | WORZALLA, DEXTER J. | 1724 STRONGS AVE, STEVENS POINT, WI 54481 |
| 25. | BEACHY, DEBBY A. | 2900 ALGOMA STREET, STEVENS POINT, WI 54481 |
| 26. | EHLENFELDT, RUTH I. | 1924 MADISON STREET, STEVENS POINT, WI 54481 |
| 27. | PAGEL, EVAN M. | 9881 TWO LAKES RD, ALMOND, WI 54909 |
| 28. | VOSS, ISAAC A. | 2015 KATHY'S DRIVE, STEVENS POINT, WI 54481 |

RENEWAL OPERATORS: 2 YEARS

- | | | |
|----|--------------------|---|
| 1. | BIADASZ, DIANE M. | 7695 COUNTY RD D, AMHERST, WI 54406 |
| 2. | BONNELL, SALLY E. | 3924 DOOLITTLE DR #4, STEVENS POINT, WI 54481 |
| 3. | CARLSON, BRENN A. | 7905 OLD AMISH RD, AMHERST, WI 54406 |
| 4. | COUSINEAU, NANCY | 721 SHERMAN AVE, STEVENS POINT, WI 54481 |
| 5. | CUNNINGHAM, AMY S. | 1630 TAMARACK STREET, PLOVER, WI 54467 |
| 6. | DEHNEL, PAULA S. | 3458 HALDER DR, MOSINEE, WI 54455 |

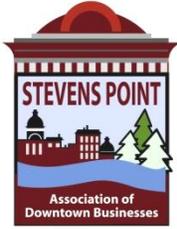
7. ENGBRETSON, TARA E. 1015 WOODLAND CT, PLOVER, WI 54467
8. GIBBS, KIMBERLY A. 2445 ELLIS RD, CUSTER, WI 54423
9. JANOWSKI, PHILLIP J. 1017 N OLD WAUSAU RD, STEVENS POINT, WI 54481
10. KONKOL, KRISTOPHER R. 704 MASON STREET, STEVENS POINT, WI 54481
11. MARCHIANDO-LASKA, AMANDA M. 3009 ELLIS STREET, STEVENS POINT, WI 54481
12. PATTON, ANTHONY P. 3917 JORDAN LN, STEVENS POINT, WI 54481
13. SKIBBA, HEATHER L. 8061 CTY RD CC, ROSHOLT, WI 54473
14. VARNEY, CARL J. 3890 BLUEBIRD DR, STEVENS POINT, WI 54482
15. SELLERS, SHELBY R. 7205 MORAIN VALLEY CT, STEVENS POINT, WI 54482
16. KOCH, ELIZABETH H. 1416 W RIVER DR, STEVENS POINT, WI 54481
17. BAUMANN, JENNA L. 812 E NORTH LAKE STREEET, HANCOCK, WI 54943
18. SUCHOWSKI, MICHAEL J. 2205 OXFORD CT APT 7, PLOVER, WI 54467
19. SWANSON JR., ALFRED W. 2640 BUSH CT APT 15, STEVENS POINT, WI 54481
20. XIONG, PANG N. 2601 INDIANA AVE #31, STEVNES POINT, WI 54481
21. LASSA, JENNIFER R. 5249 BIRCH DR, MOSINEE, WI 54455
22. WONG, TECK L. 1412 THIRD STREET, STEVENS POINT, WI 54481
23. BASINSKI, MELISSA R. 215E SHERMAN AVE #21, STEVENS POINT, WI 54481
24. GREGORICH, AMY J. 1101 MATILDA STREET, STEVENS POINT, WI 54481
25. LAMERS, CODY D. 5499 SORENSON STREET, STEVENS POINT, WI 54482
26. MOORE, JERRY R. 317 DIVISION STREET N, STEVENS POINT, WI 54481
27. ZIEGELMAN, DUSTIN J. 110 WILLOW STREET W, STEVENS POINT, WI 54481
28. GIESE, BRIAN M. 1801 MAIN STREET, STEVENS POINT, WI 54481
29. SCHNEIDER, ANDREA J. M. 960 A MAIN STREET, STEVENS POINT, WI 54481
30. SLACK, JON E. 1225 FIFTH AVE, STEVENS POINT, WI 54481
31. WETZEL, ELIZABETH K. 112 SECOND STREET N, STEVENS POINT, WI 54481
32. DUDZIK, ROSEMARY J. 3017 MCCULLOCH STREET, STEVENS POINT, WI 54481
33. HOOPS RICE, MELISSA E. 736 UNION STREET, STEVENS POINT, WI 54481
34. WALTON, SARAH I. 2701 FOREST DRIVE #74, PLOVER, WI 54467
35. BENAVIDEZ, NOE 518 MCDILL AVE, STEVENS POINT, WI 54481
36. MANOWSKI, DAVIS L. 1209 W PEARL STREET, STEVENS POINT, WI 54481
37. MENTING, MORGAN J. 803 WADLEIGH STREET, STEVENS POINT, WI 54481
38. JOHNSON, GARY M. 1497 SUNNY CREST, STEVENS POINT, WI 54482
39. JOHNSON, KATHRYN L. 3225 BUCKINGHAM RD, STURTEVANT, WI 53177
40. LEMKE, ARIN E. 1419 CTY C, STEVENS POINT, WI 54481
41. LETZTER, MICHAEL A. 516 FREDERICK STREET, STEVENS POINT, WI 54481
42. NEUENFELDT, LAURA A. 8538 N 6TH STREET, ALMOND, WI 54909
43. EGGLESTON, ZACHARY J. 2410 ENTERPRISE CT, PLOVER, WI 54467
44. KUBISIAK JR., WILLIAM J. 1561 N RESERVE DR, STEVENS POINT, WI 54482
45. LAWSON, JESSICA L. 1100 SIXTH AVE APT A, STEVENS POINT, WI 54481
46. PITCHER, LORI A. 725 ILLINOIS AVE, STEVENS POINT, WI 54481
47. SCHROTH, MARY J. 270 CROSSBOW DR, PLOVER, WI 54467

48.	SUEHRING, REBECCA L.	4922 BARBARA'S LN, STEVENS POINT, WI 54481
49.	SZYMKOWIAK, EUGENE G.	872 W OAKRIDGE LN, STEVENS POINT, WI 54481
50.	WAITE, BRITTANY C.	2135 ELLIS STREET, STEVENS POINT, WI 54481
51.	WAY, JANET M.	1203 WILSHIRE DR, STEVENS POINT, WI 54482
52.	MERTELY, GAIL A.	1215 ROCKY RUN RD, STEVENS POINT, WI 54481
53.	SHUDAREK, CHELSEA E.	1251 JORDAN RD, STEVENS POINT, WI 54482
54.	ZEITLER, HEATHER L.	1625 COLLEGE AVE, STEVENS POINT, WI 54481
55.	ECKES, KRYSTIN J.	6507 ROBERT STREET, VESPER, WI 54489
56.	DUNCAN, MARISSA A.	305 MICHIGAN AVE APT 4, STEVENS POINT, WI 54481
57.	STRUPP, STACEY L.	2508 JEFFERSON STREET, STEVENS POINT, WI 54481
58.	SLACK, MELISSA A.	1225 FIFTH AVE, STEVENS POINT, WI 54481
59.	MOUL, DAVID T.	3309 BUSH STREET #14, STEVENS POINT, WI 54481
60.	MCCARTHY, BRIAN R.	2408 CENTER STREET, STEVENS POINT, WI 54481
61.	HINTZ, LISA M.	2733 COUNTY RD K, CUSTER, WI 54423
62.	DANIEWICZ, ADAM V.	2961 OAK STREET, STEVENS POINT, WI 54481
63.	BERG, CARMEN M.	555 W CLARK STREET, STEVENS POINT, WI 54481
64.	ANDREASEN, JENNIFER M.	2100 W RIVER DR, STEVENS POINT, WI 54481
65.	SMITH, ELIZABETH M.	321 WEST STREET, STEVENS POINT, WI 54481
66.	SCHLOSSER, ASHLEY A.	441 W CORNELL AVE, STEVENS POINT, WI 54481
67.	MENCE, ALORAH R.	2117 CLARK STREET, STEVENS POINT, WI 54481
68.	CHARLES, CHRIS J.	1200 RIVER VIEW AVE #158, STEVENS POINT, WI 54481
69.	CHARNESKI, LINDA R.	609 PRENTICE STREET, STEVENS POINT, WI 54481
70.	DILEY, NICHOLAS J.	340 NORTH STREET, WAUPACA, WI 54981
71.	ERICKSON, JACQUELINE A.	1616 DEPOT STREET, STEVENS POINT, WI 54481
72.	FELDEN, MICHAEL B.	5489 PORTER DRIVE, STEVENS POINT, WI 54482
73.	GLODOWSKI, CHRIS S.	2625 ELLIS STREET, STEVENS POINT, WI 54481
74.	HILGERS, SHAWN P.	9220 FOUR MILE LANE, WISCONSIN RAPIDS, WI 54494
75.	KREBSBACH, HEATHER L.	3909 DOOLITTLE DR APT 11, STEVENS POINT, WI 54481
76.	NIWCZYK, RACHELLE L.	408 MEADOW STREET, STEVENS POINT, WI 54481
77.	RUEB, BONNIE A.	3117 PRAIS STREET, STEVENS POINT, WI 54481
78.	STEDL, SUZANNE M.	49 PARK RIDGE DR, STEVENS POINT, WI 54481
79.	ZAJACKOWSKI, SAMANTHA R.	2372 TRESTIK RD, JUNCTION CITY, WI 54443
80.	FENWICK, MARYSSA A.	12202 BERLIN LANE, MERRILL, WI 54452
81.	DRENGBERG, TRACY L.	2156 ELLIS STREET, STEVENS POINT, WI 54481
82.	GRUBBA, LAURIE	1032 WHTING AVE, STEVENS POINT, WI 54481
83.	JUDZIEWICZ, ROBERT T.	408 VERRILL STREET, STEVENS POINT, WI 54481
84.	NATZKE, CHRISTOPHER S.	124 MINNESOTA AVE APT 1, STEVENS POINT, WI 54481
85.	RUIZ, NATHANIEL P.	2807 COUNTY RD Y, STEVENS POINT, WI 54482
86.	WOBORIL, SAMUEL J.	2017 ELLIS STREET, STEVENS POINT, WI 54481
87.	WOLDEN, JEREMY C.	3009 JEFFERSON STREET, STEVENS POINT, WI 54481

TEMPORARY CLASS "B" / "CLASS B" LICENSE (PICNIC):

1. **Portage County Fair/Rosholt Fair Association**, P O Box 244, Rosholt, WI, for Jam'n' July on July 23, 2016 at Pfiffner Park. Licensed operator on premise: Katy Bruni. (Beer only)

****ISSUANCE OF ANY LICENSE IS CONTINGENT UPON APPLICANTS COMPLIANCE WITH THE TRAINING REQUIREMENTS OF SEC. 125.17(16), WISCONSIN STATUTES.**



Association of Downtown Businesses

A Main Street Community

PO Box 675, Stevens Point, WI 54481

May 7, 2016

John Moe
City Clerk
1515 Strongs Avenue
Stevens Point, WI 54481

Dear City Clerk,

This letter will serve as the Association of Downtown Businesses' request to hold the Annual 4th of July Parade on Sunday, July 3, 2016, at 2:00 p.m. The parade will follow the customary parade route, west on Main Street from Associated Bank through the Market Square.

The event will require Main Street from Rogers to Water Street to be closed the morning of the parade, with parking restrictions until the conclusion of the parade. The Association of Downtown Businesses will work with the Stevens Point Police Department and Auxiliary for security during the parade.

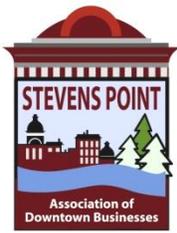
We will also work with the Farmers Market regarding this event.

Please notify me of the Public Protection and Council meeting dates and agendas for this request.

If you are in need of additional information please contact me. Thank you.

Sincerely,

John Dolan, President
Association of Downtown Businesses



Association of Downtown Businesses

A Main Street Community

PO Box 675, Stevens Point, WI 54481

June 7, 2016

John Moe
City Clerk
1515 Strongs Avenue
Stevens Point, WI 54481

Dear City Clerk,

This letter will serve as the Association of Downtown Businesses' request to hold the Annual Discover Downtown event on Friday, July 15, 2016, from 10 a.m. to 6 p.m. and Saturday, July 16, 2016 from 10 a.m. to 4 p.m. The event will take place on Main Street, Strongs Avenue and Third Street.

The event will require that Main Street from Strongs Ave to the Market Square to be closed both days, with parking restrictions from whatever time the Stevens Point Police Department deems prudent to have all vehicles off the street each day until 6 p.m. on Friday and 4 p.m. on Saturday. It will also require that Third Street be closed from the entrance into the Library lot north to Main Street and from Main street north to the first driveway with the same parking restrictions as Main Street both days. Some businesses on Strongs may choose to limit parking in front of their store to set-up displays.

The Farmers Market will be able to happen on Saturday as usual.

Please notify me of the Public Protection and Council meeting dates and agendas for this request.

If you are in need of additional information please contact me. Thank you.

Sincerely,

John Dolan, President
Association of Downtown Businesses



Fostering forms of justice that strengthen and heal the communities of Central Wisconsin
1578 Strongs Avenue Suite D, Stevens Point, WI 54481-3566 (715) 344-3677
www.justiceworksltd.org

RECEIVED
MAY 23 2016
CITY CLERKS
OFFICE

To: John Moe, Stevens Point City Clerk
From: Kurt Helminiak, Justiceworks, Ltd.
Date: May 20, 2016
Re: Approval of the Justiceworks Half-Marathon and 5K Run/Walk race course
Event Date: September 3, 2016

Request to the City of Stevens Point:

This request is for city approval of the Justiceworks Half-Marathon and 5K fundraiser annual event and the run/walk course in Stevens Point. Race course management is provided by the Stevens Point Police Department, Portage County Sheriff's Department, course monitor volunteers, and the Portage County Emergency Medical Response Unit. The event has essentially been held on the same course for the past eight years. This year the course will include a short leg through the sculpture park. The race route has previously been reviewed with Sgt. Tony Babl. He and other officers will provide course support. UWSP Protective Services will provide assistance for pathways adjacent to UWSP property.

Event Objective:

- To provide visibility to the non-profit community justice organization, Justiceworks, Ltd.;
- To build awareness of restorative justice practices in Portage County;
- To provide non-profit funding for the organization from race proceeds
- To promote community fitness
- To partner with the Riverfront Jazz Festival in order to build attendance at the jazz festival

Non-profit organization/event background information:

Justiceworks is a non-profit organization dedicated to fostering forms of restorative justice that strengthen and heal the communities of Portage County. Justiceworks endeavors to facilitate citizen involvement to help bridge the gaps between the justice system and related community needs. Justiceworks supports practices and policies that reduce the rate of recidivism and provide fair and equal access to justice. Justiceworks also supports community education on justice issues. More information on Justiceworks can be found at www.Justiceworksltd.org.

In its 12th year of organization, Justiceworks is again offering a quality community fundraiser run/walk. Past year participant evaluations indicated that a majority of participants spent additional dollars in the community due to their attendance at the race. The race course features the unique focal points of our community, including the downtown, University of Wisconsin- Stevens Point, Schmeekle Reserve and the riverfront. Our goal is to continue to sponsor this as an annual event for the long-term benefit of the community.

Attachment:

Half-Marathon/5K Map

Respectfully submitted by,

Jan Way
Race Volunteer

*mailed to
PP on 5/27/16*

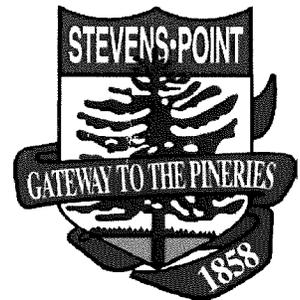
Enclosed is a notice and/or service charge issued by the Inspection Department of the City of Stevens Point. To dispute or contest this notice and/or charge, a formal written letter must be submitted to the Public Protection Committee. This request must be in writing, in a manner which is legible, or typed and submitted to the City Clerk's Office, ATTN: Public Protection Committee, attach separate sheets as needed.

Under city ordinance 21.16, any person aggrieved by a notice and/or charge issued in connection with any alleged violation may file a request for a hearing with the Public Protection Committee for review of the case.

The written or typed appeal must set forth the reasons for contesting the notice and/or charge issued by the Inspection Department. The appeal must be submitted within 20 days after the date of issuance of the notice and/or charge.

Appeals may be delivered in person to the City Clerk's Office or mailed to:

City Clerk's Office
ATTN: Public Protection Committee
1515 Strongs Avenue
Stevens Point, WI 54481



RECEIVED
MAY 23 2016
CITY CLERKS
OFFICE

All information below is required for submittal of a hearing review:

Address of property: 908 Second **Contact phone:** 715 3261443

Date of violation: 5/3/16 **Alleged violation:** _____

Violation ID #: _____ **Issuing agent (Inspector):** _____

Reason(s) for dispute:

See attached

Signature: Steph Jones **Date:** 5 23 16
Print Name: Steph Jones

Steph Jones

908 Second Street, Stevens Point

715-326-1443

5/3/16

condition 1: 21.07 (1)

1, 2abcdefg

The repairs to the exterior will be costly.

I am asking for an extension, so I may have time to obtain a loan, or grant.

(2) 21.07 (9)

Regarding my fences, I am complying with weatherproofing aspects, and I will be working to afford a new fence on the north side of the property. The fence is against a neighboring landlords property on 800 block of franklin on south side. This rental property's tenants have been a nightmare to live next to. A constant stream of evictions, too many unrelated people living in dwelling, domestic disturbances, and suspected drug dealing due to all of the cars coming and going at all hours. I need my privacy from these miscreants.

I am asking for an extension to comply with fencing regulation.

(3) 21.03

a. (4) I had been inspected shortly after participating in Trivia 47, a community wide endorsed activity. The bags were recyclables from the trivia contest.

The pile of pavers was being reconfigured for a new walkway, not building rubbish.

B 21.03 (4) (b) 5 and 21.03 (10)

The piles of "yardwaste" were preparations for new vegetable garden beds, of a method called hugelkultur, a centuries old practice of creating a sustainable garden bed. See article. The piles had just been mulched, and I was waiting for my soil delivery. This is an excellent way to grow remarkable produce.

I also have a compost pile. With my extensive gardens, that I am continually tending, I generate a bushel basket of clippings daily. Composting is a science, and beneficial to reduction of waste, as well as creating a healthy soil environment rich in nutrients. It is tended to weekly.

I also put most white paper junkmail, buyers guides, cardboard etc. into the compost pile. Saving annually 40+ pounds of waste. As well as Eliminating the need to transport, recycle with excessive water useage and chemicals.

c. 21.03 (4) (b) 5 21.03 (10)

My yard is currently habitat to a variety of nesting birds, monarch butterflies, bees and other pollinators. To treat the tree will require spraying chemicals near these vulnerable creatures. I will comply with this, however I am asking for an extension, due to the nesting birds and pollinators including: robins, cardinals, chickadee, finch, sparrow, and mourning dove. Also present are hummingbirds, and downy, hairy and a pileated woodpeckers.

Early fall would be a safer time to apply a sealant.

(d) I have complied with the furniture on the front porch. The front porch is my clay studio for the summer months. I am waiting for a meeting with Greg Wright from Arts Alliance/ CREATE portage county, to create some solutions regarding my studios and creative spaces, as well as my supplies. I use all recycled materials for my work.

As a local artist exhibiting in the Sculpture Park, Delta Dental, Pineries Bank, CAP Services, Downtown Stevens Point, RAC and MREA, I have been a very involved member of the community. I have an education in fine art from UWSP. I have been asked many times as a voice for articles promoting our city's art culture, and have volunteered many hours of my time for art events.

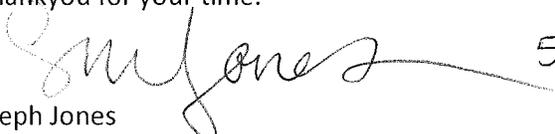
My neighborhood landscape is comprised of ominous bars and rentals.

My yard is an extension of the work I create for public spaces, and effort to beautify the street. I daily have new admirers of "Second Space Art Place and Studios". I take time to greet them, have conversations, and promote the Sculpture Park. This is grassroots "Community Engagement".

I have loved this town because of the appreciation of the arts, and the sustainable aspects of this community. We strive to be clean, and green, and responsible. I should not be penalized for doing my part to create and protect the environment.

Health reasons are another issue of why I am seeking extensions. I have been diagnosed with Lyme's Disease and Fibromyalgia, and I am in a great deal of constant pain, and very sensitive to pollutants. Please have patience with my remediation.

Thankyou for your time.

 5/23/16

Steph Jones

Second Space Art Place and Studios

908 Second Street.

Working Paper Series, 20



How the Arts Impact Communities:

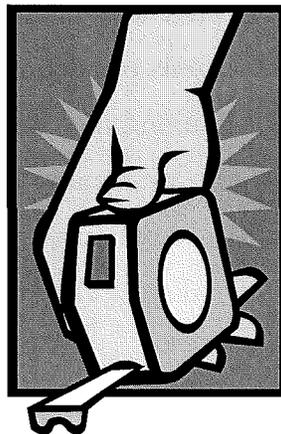
An introduction to the literature on arts impact studies

Prepared by

Joshua Guetzkow

for the

Taking the Measure of Culture Conference



Princeton University
June 7-8, 2002

The author thanks Paul DiMaggio and Steve Tepper for their guidance and suggestions, and Jesse Mintz-Roth for his fine research assistance. Also, thanks are due to the Rockefeller Foundation for its generous support of this project. Please do not cite without permission. Direct any comments for the author to joshg@princeton.edu.

INTRODUCTION

As private and public agencies seek innovative ways to employ the arts to improve and strengthen communities, they have become increasingly interested in assessing the impact of their investments. In this context, arts advocates and researchers have made a variety of ambitious claims about how the arts impact communities. These claims, however, are made problematic by the many complications involved in studying the arts. Just consider the possible definitions of the phrase, “the arts impact communities.” When speaking of “the arts,” do we refer to individual participation (as audience member or direct involvement?), to the presence of arts organizations (non-profit *and* for-profit?) or to art/cultural districts, festivals or community arts? When speaking of “impact,” do we refer to economic, cultural or social impact; do we refer exclusively to direct community-level effects or do we also include individual- and organizational-level ones? By “communities,” do we mean regions, cities, neighborhoods, schools or ethnic groups?

Of course, there are no authoritative answers to these questions, since different research questions require different definitions. And as one might expect, arts impact studies employ these heterogeneous definitions in a variety of combinations. Given this array of definitions, how would we go about measuring the impact of the arts on communities? One problem is that researchers and arts advocates rarely seem to consider such complications when making claims about the broader impact of the arts, and seldom discuss the implications of making particular theoretical and methodological choices.¹

In this paper, I will lay out some of the issues that need to be addressed when thinking about and studying how the arts impact communities, in addition to providing an introduction to the literature on arts impact studies. I begin discussing the mechanisms through which the arts are said to have an impact. Following this is a

¹ To be fair, many studies are not intended to examine the impact of arts programs on the broader community, but only at a relatively limited number of participants. Nevertheless, the findings of these studies are often used by arts advocates to support more ambitious claims about the impact of the arts on communities.

discussion of key theoretical and methodological issues involved in studying the impact of the arts. I conclude by suggesting areas for further research and reflecting on the limitations of past research.

MECHANISMS

The arts have been heralded as a panacea for all kinds of problems Arts-integrated school curricula supposedly improve academic performance and student discipline (Fiske 1999; Remer 1990). The arts revitalize neighborhoods and promote economic prosperity (Costello 1998; SCDCAC 2001; Stanziola 1999; Walesh 2001). Participation in the arts improves physical and psychological well-being (Baklien 2000; Ball and Keating 2002; Bygren, Konlaan and Johansson 1996; Turner and Senior 2000). The arts provide a catalyst for the creation of social capital and the attainment of important community goals (Goss 2000; Matarasso 1997; Williams 1995).

Given these claims, the question arises of how to elaborate the causal mechanisms through which the arts have an impact (i.e., the intervening factors that connect a particular arts activity with a specific outcome). Below is a grid that lays out two dimensions that will help in thinking about this.² The rows represent three aspects of the arts typically highlighted in the literature: direct involvement in arts organizations, especially that which entails personal engagement in some form of creative activity (most often associated with community arts programs and the use of the arts in education); participation in the arts as an audience member (mostly associated with cognitive ability, cultural capital and health improvement arguments, as well as economic impact studies of the arts – i.e., whether the arts have an economic impact by drawing audience dollars from outside the community); and the presence of arts organizations in a community (mostly associated with economic impact studies and social capital arguments).

² This grid expands and builds upon a typology of arts effects developed in a research proposal to the Wallace-Readers Digest Funds by Kevin McCarthy (2002) of the RAND Corporation.

Table 1: Mechanisms of Arts Impact*

	Individual			Community		
	Material/ Health	Cognitive / Psych.	Interpersonal	Economic	Cultural	Social
Direct Involvement	<p>Builds inter-personal ties and promotes volunteering, which improves health</p> <p>Increases opportunities for self-expression and enjoyment</p> <p>Reduces delinquency in high-risk youth</p>	<p>Increases sense of individual efficacy and self-esteem</p> <p>Improves individuals' sense of belonging or attachment to a community</p> <p>Improves human capital: skills and creative abilities</p>	<p>Builds individual social networks</p> <p>Enhances ability to work with others and communicate ideas</p>	<p>Wages to paid employees</p>	<p>Increases sense of collective identity and efficacy</p>	<p>Builds social capital by getting people involved, by connecting organizations to each other and by giving participants experience in organizing and working with local government and nonprofits.</p>
Audience Participation	<p>Increases opportunities for enjoyment</p> <p>Relieves Stress</p>	<p>Increases cultural capital</p> <p>Enhances visuo-spatial reasoning (Mozart effect)</p> <p>Improves school performance</p>	<p>Increases tolerance of others</p>	<p>People (esp. tourists/visitors) spend money on attending the arts and on local businesses. Further, local spending by these arts venues and patronized businesses has indirect multiplier effects</p>	<p>Builds community identity and pride</p> <p>Leads to positive community norms, such as diversity, tolerance and free expression.</p>	<p>People come together who might not otherwise come into contact with each other</p>
Presence of Artists and Arts Organization & Institutions	<p>Increases individual opportunity and propensity to be involved in the arts</p>			<p>Increases propensity of comm.-unity members to participate in the arts</p> <p>Increases attractiveness of area to tourists, businesses, people (esp. high-skill workers) and investments</p> <p>Fosters a "creative milieu" that spurs economic growth in creative industries.</p> <p>Greater likelihood of revitalization</p>	<p>Improves community image and status</p>	<p>Promotes neighborhood cultural diversity</p> <p>Reduces neighborhood crime and delinquency</p>

* This grid further develops a typology proposed by Kevin McCarthy (2002).

The columns represent types of impact and are divided into individual and community levels. Individual-level effects are relevant for the purposes of community impact studies to the extent that the impact of the arts on individuals aggregates to the community. (For example, some individual-level impacts, such as ‘personal enjoyment,’ may not have any consequences on community life.) The three types of individual impacts are material (mainly health), cognitive/psychological and interpersonal. Types of community-level effects, which are roughly homologous to individual-level ones, are economic, cultural and social. The cells of the table contain, where relevant, specific impacts claimed in the literature.

The grid helps to assess how different levels and types of artistic inputs are related to different types of outputs. It can be taken as axiomatic that, other things being equal, the more *widespread* and/or *intense* the participation of community members (who are not involved as professionals), the greater the impact the arts will have on cultural and social factors.³ However, direct involvement is more intense than audience participation, whereas audience participation is more widespread than direct involvement. (To the extent that community arts programs are geared towards producing some kind of public ‘show’ [art show, play, reading, festival, etc.], they will tend to optimize both dimensions of participation.) Greater concentrations of artists and arts-related organizations lead to higher degrees of arts participation among residents, directly and as audience members (Stern and Seifert 2000). There is also often a trade-off between different types of arts activities in terms of the kinds of benefits they are most likely to produce. For example, a well-respected theater employing a professional staff is more likely to draw visitors and tourists from outside the community than is a local community arts project exhibition, and hence it will have a greater economic impact. But, since the level of participation among community members lacks intensity in the case of the theater, it has less potential for

³ Note that this does not apply to economic impacts, since those rely primarily on bringing revenue from *outside* the community. In this example, the type of participation is ‘widespread’ and the degree is the ‘intensity.’

building social capital and a sense of collective efficacy. Both the theater and the community arts project may enhance community pride and self-image.

It should be noted that, with the exception of economic impact studies, almost all other research focuses on the benefits that accrue to individuals and organizations involved in the arts, rather than the direct impact of the arts on a community as such.⁴ I will discuss this problem of aggregation later in the paper, but for now I bracket it in favor of explicating mechanisms that connect well-defined arts activities to well-defined outcomes.⁵ The following discussion is organized by claims about the impact of the arts. I focus on three types of claims: first, claims that the arts build social capital; second, claims that the arts improve the economy; and third, claims that the arts are good for individuals. These three broad claims capture virtually all of the more specific assertions about the impact of the arts.

Claim: The arts increase social capital⁶ and community cohesion

Claims under this heading encompass the last two columns of the table – community-level cultural and social impacts – as well as interpersonal effects. Virtually all studies that make this claim examine the effects of community arts programs on the participants and organizations involved (Costello 1998; Dolan 1995; Dreeszen 1992; Fritschner and Hoffman 1984; CDA 2000; Krieger 2001; Landry et al. 1996; Matarasso 1997; Matzke 2000; Murphy 1995; Ogilvie 2000; Preston 1983; Stern et al. 1994; Stern and Seifert 2002; Trent 2000; Williams 1995; Wollheim 2000). The following discussion draws on all of these studies.

Although quite varied, community arts programs are grassroots organizations that attempt to use the arts as a tool for human or material development (Costello 1998). Community arts programs almost universally involve community members in a

⁴ One notable exception is Stern (1999; 2001), who demonstrates that a greater concentration of arts organizations in a neighborhood leads to longer-lasting ethnic and economic diversity in that neighborhood.

⁵ By aggregation, I refer to the process by which effects on individuals, taken together, can combine to have an influence on the broader community.

⁶ Scholars often fail to define precisely what they mean by social capital. According to Robert Putnam's influential definition, "social capital refers to connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them," which may facilitate coordination and cooperation for mutual benefit (2001: 19)

creative activity leading to a public performance or exhibit. As defined by the Ontario Arts Council (2002), “Community Arts is an art process that involves professional artists and community members in a collaborative creative process resulting in collective experience and public expression. It provides a way for communities to express themselves; enables artists, through financial or other supports, to engage in creative activity with communities; and is collaborative – the creative process is equally important as the artistic outcome.” (Note that this is different from such things as local, neighborhood knitting groups.) Community arts programs often involve people who are disadvantaged in some way (at-risk youth, ethnic minorities, people in a poor neighborhood) and are designed in the context of some larger goal, such as neighborhood improvement (typically aesthetic) or learning and teaching about diverse cultures (multiculturalism). These goals are usually the basis for claims about the politically transformative potential of community arts projects (e.g., see Williams 1997). Regardless of the ultimate purpose(s) to which social capital is to be put, community arts programs are said to build social capital by boosting individuals’ ability and motivation to be civically engaged, as well as building organizational capacity for effective action. This is specifically accomplished by:

- Creating a venue that draws people together who would otherwise not be engaged in constructive social activity.
- Fostering trust between participants and thereby increasing their generalized trust of others
- Providing an experience of collective efficacy and civic engagement, which spurs participants to further collective action
- Arts events may be a source of pride for residents (participants and non-participants alike) in their community, increasing their sense of connection to that community.
- Providing an experience for participants to learn technical and interpersonal skills important for collective organizing
- Increasing the scope of individuals’ social networks

- Providing an experience for the organizations involved to enhance their capacities. Much of this comes when organizations' establish ties and learn how to work, consult and coordinate with other organizations and government bodies in order to accomplish their goals.

A case study from Williams' (1995: 101-106) research in Australia provides an example of these mechanisms. The study was conducted on a sample of recipients of community-based arts grants provided by the Australia Council. One of these grants was given to a small group of women residents of Longlea, a suburb of Brisbane. Their goal was to beautify their blighted community center, which involved local residents in the creation of artworks around the community center. This drew together townspeople who might otherwise have stayed at home to engage in a constructive social activity. As people worked collaboratively on the project and got to know each other better, their mutual trust increased. Their success in negotiating with the municipal bureaucracy in order to accomplish the task gave participants a newfound sense that they could accomplish other goals. The community group and individuals coordinating the efforts learned organizing skills, learned how to navigate the bureaucracy and built relationships with the municipal and regional government. Finally, the people involved felt an increased sense of pride and appreciation of their town.

Claim: The arts have a beneficial impact on the economy

Economic impacts are perhaps the most widely touted benefits of the arts. The literature on economic impact studies of the arts tends to fall into two categories: on the one hand, advocacy studies based on quick appraisals that often exaggerate the impact of the arts (Azmi 2002; Bryan 1998; Eckstein 1995; Perryman 2001; SCDCAC 2001; Singer 2000; Walesh 2001). On the other hand are more rigorous studies -- which, overtime, show increasing methodological refinement (Cohen 1994; Costello 1998; CPC 2002; Cwi 1980a; Cwi 1980b; Cwi and Lyall 1977; DiNoto and Merk 1993; Frey 1998; Gazel 1997; Kling, Revier and Sable 2001; Mitchell 1993;

O'Hagan and Duffy 1987; Port Authority of New York and New Jersey 1983; Radich 1987; Rolph 2001; Sable and Kling 2001; Seaman 1997; Stern and Seifert 2000; Throsby 2001; Travers, Stokes and Kleinmann 1997). In the following discussion, I have tried to rely on these more rigorous studies.

- The arts attract visitors (art as 'export' industry):
Tourists visit a community primarily in order to attend an arts event (alternatively, tourists may prolong a trip in order to attend an arts event). They will spend directly on the arts event and may also shop, eat at a local restaurant and/or stay at a hotel in the community. To the extent that these tourist dollars are spent by the arts organization – as well as the stores, restaurants and hotels – on local goods and services, the dollars brought in to the community for an arts event will have indirect multiplier effects on the local economy.⁷
- The arts attract residents and businesses:
The density of arts organizations and prevalence of arts events may play a role in attracting residents and businesses to (re)locate to a community by improving its image and making it more appealing. This is especially true for attracting highly skilled, high-wage residents, who will have a larger economic impact than less-skilled people. Businesses, especially those that employ highly trained mobile personnel, may consider the presence of art venues when making (re)location decisions (Cwi 1980b: 18-19). The presence of the arts (i.e., improved image of an area) may work to enhance the impact of tax incentives for business location decisions (Costello 1998: 147-9).
High concentrations of artists and/or high-skilled workers may produce agglomeration effects, where businesses (especially those in the fast-growing 'creative industries' (Walesh 2001)) are drawn to an area because of the availability of creative talent and/or high-skilled workers, and vice versa.
- The arts attract investments:
By improving a community's image, people may feel more confident about investing in that community. So for example, people might be

⁷ An indirect multiplier is based on the idea that a portion of each dollar spent on some good or service is then used by the recipient to pay for more goods and services. To the extent that the money circulates within a community (e.g., a city), it 'multiplies' within that community. So for example, if you spend \$20 on a ticket to a play, the playhouse turns around and spends \$15 of that for set design supplies from local markets. The employees also spend locally some portion of their income that is derived from that \$15 to pay for more goods and services; and the stores from which they bought supplies in turn use some of that money to pay their workers and buy more supplies, and so on. This 'multiplies' the value of the initial \$20.

more likely to buy property in an area that they feel is “up-and-coming” because of the presence of the arts. Or, banks may be more likely to lend to businesses in areas perceived as more secure and stable, and so on.

One problem with determining the impact of the arts is distinguishing between revenue from locals vs. revenue from tourists, and among the latter determining the extent to which the arts drew them to visit the community. Expenditures by locals should not be included in studies of the economic impact of the arts, because the arts may simply represent an alternative outlet for spending (rather than an additional outlet), thus representing no net differences on the local economy (assuming equal multiplier effects among outlets). In terms of private and public subsidies for the arts, it is difficult to determine the opportunity costs of investing the money in other things (i.e., whether investing the same amount of money in something else would have a stronger impact on the economy). There is scant evidence on whether money spent on the arts is more likely to circulate locally than money spent in other areas (though see Palmer 2002 for a comparison of arts performances versus sports arenas).

As an example of how the arts may have an economic impact, let us examine a summer theater festival that a small town puts on every year (Mitchell 1993). This festival draws thousands of visitors who come – some from far away, but most from the surrounding area – in order to attend the performance. These visitors spend money on tickets as well as restaurants, hotels, parking and retail shopping. (In this sense, the arts are said to be an ‘export’ industry to the extent that they bring in money from outside the local economy.) This spending has a direct positive impact on the town’s economy. Indirectly, this spending has what is called a “multiplier effect” to the extent that those dollars re-circulate in the local economy as a result of spending on local goods and services by the festival and the other business.

Claim: The arts are good for individuals

Claims that the arts are good for individuals take many forms. The arts have been said to improve health, mental well-being, cognitive functioning, creative ability and academic performance.

- The arts improve individual health.
Either engaging in creative activity or simply attending some kind of artistic event appears to improve physical health (Angus 1999; Baklien 2000; Ball and Keating 2002; Bygren, Konlaan and Johansson 1996; HDA 2000; Thoits and Hewitt 2001). This could be due in part to its ability to relieve stress. Also, arts engagement widens and strengthens social bonds, which also improves health (Baklien 2000: 250-51; Ball and Keating 2002). On a more physiological level, Bygren, Konlaan and Johansson (1996: 1580) explain: “we know that the organism responds with changes in the humoral nervous system—for example, verbal expression of traumatic experiences through writing or talking improves physical health, enhances immune function, and is associated with fewer medical visits.”
- The arts improve psychological well-being.
Here we have to distinguish between passive and active participation. Attending arts events may be stimulating and relieve stress, hence leading to improved happiness/ life satisfaction. Active participation in the arts leads, in addition, to improved self-concept and sense of control over one’s life. There are different reasons why this might be so. Lots of the anecdotal evidence comes from community arts programs, some of which are geared towards poor, marginal or ‘at-risk’ populations (Lynch and Chosa 1996; Seham 1997; Weitz 1996; Williams 1995). This is backed up by the little – and poor quality - survey data that do exist. To the extent that the creation and completion of some arts project provides an opportunity to such participants to succeed and gain some positive public recognition, it will improve their sense of control over their life and self-concept (Fiske 1999; Jackson 1979; Randall, Magie and Miller 1997; Seham 1997; Weitz 1996). To date, there has been no systematic comparison between community arts programs operating in different socio-economic climates to see whether such effects appear to be uniform.
- The arts improve skills, cultural capital and creativity.
Here again we have to distinguish between passive and active participation. Audience members may gain some new knowledge or

cultural capital⁸ by attending arts events. There is also the so-called Mozart effect showing that children who listen to Mozart (and other similar stimuli) show improved performance on visuo-spatial reasoning tests – although the effect may not last (Chabris et al. 1999; Hetland 2000). Individuals directly involved in creating or organizing artistic activity may learn skills that they did not previously have and may demonstrate greater creativity (Fiske 1999; Randall, Magie and Miller 1997; Rolph 2001; Seham 1997; Sharp 2001; Weitz 1996). On the whole, education studies show that kids engaged in an arts class will do better in other subjects and that an arts-integrated curriculum improves school performance (Albert 1995; Fiske 1999; Jackson 1979; Remer 1990; Weitz 1996; Winner and Hetland 2000). The basic reason for this may be that children find learning through artistic/creative activity much more enjoyable, and so they will have an easier time engaging with the material. It is important to point out, however, that most studies do not control sufficiently for self-selection into arts activities and the effects are not as dramatic as boosters would claim.

The *Coming Up Taller* report (Weitz 1996) provides concrete examples of some of these mechanisms. The report identifies arts-training programs targeted at at-risk youth and seeks to understand why these programs work. At least two of the programs involved working with sentenced juvenile offenders. One program taught musical theater; the other painting. Both programs appeared to enhance the self-esteem of their participants, because they learned new skills, found that they had undiscovered talents, and received positive recognition from peers and others when they perform or exhibit their work. Learning new skills may also improve their position on the job market. For example, in addition to learning singing, dancing and acting, participants in the music theater program also learn about the technical side of producing a play, such as lighting, set-design and sound. Also, performing a play or doing other kinds of artistic activity can provide a means of learning that children find much more fun and engaging. As a result they will learn and absorb the material better.

⁸ I use the most restricted definition of cultural capital as simply knowledge of the fine arts. For example, in taking an arts class, one learns something about aesthetics and art appreciation and perhaps about art history. Such knowledge has been linked to better school performance and improvement of other life outcomes (DiMaggio 1982; DiMaggio and Mohr 1985).

THEORETICAL & METHODOLOGICAL ISSUES

Definitions

As I pointed out at the start, the phrase “arts impact communities” admits of many possible definitions. Specifying these definitions is an important task that researchers often ignore. Here, I briefly sketch some dimensions along which these terms can be defined.

Defining “the arts” – Different research projects rarely define “the arts” in the same way, and often the same study will include diverse activities and organizations, including professional opera companies, neighborhood cultural centers, community arts programs and in some cases even major league sports. There are several dimensions along which definitions of the arts might be specified: genre or art-form (whether the activity is painting, singing, acting, etc.); sector (whether the organization involved is non-profit, commercial or governmental); time (duration of the arts activity or involvement); place (where does the activity/performance take place); group participation (whether the activity is done alone, in small groups or in large groups); medium (whether the arts is live, recorded or Web-based); and mode of participation (whether involvement is active art-making, organizational volunteering or audience participation).

This last dimension provides a distinction useful for classifying prior studies. Some studies look at the effect of participation in the arts on those who are directly involved, especially when they are engaged in art-making. Such studies often examine the impact of community arts programs (CDA 2000; Landry et al. 1996; Matarasso 1997; Matzke 2000; Murphy 1995; Trent 2000; Williams 1995; Wollheim 2000) or arts-centered teaching programs (Albert 1995; Fiske 1999; Jackson 1979; Remer 1990; Seham 1997; Sharp 2001; Weitz 1996; Winner and Hetland 2000), usually on the participants themselves but sometimes on the local community. Other studies look at arts attendance, occasionally examining the impact of the arts on their audience (Bygren, Konlaan and Johansson 1996; Chabris et al. 1999; Hetland 2000; Landry et

al. 1996; Matarasso 1999; Williams 1995), but most often focusing on the audience's impact on the local economy (Bendixen 1997; DiMaggio, Useem and Brown 1978; Frey 1998; Gazel 1997; Laing and York 2000; Mitchell 1993; O'Hagan and Duffy 1987; SATC 1998).⁹ A third major focus of arts research is on the presence and density of arts organizations, looking sometimes at how these factors affect involvement in the arts and other local organizations (Stern 1999; Stern and Seifert 2000), but typically emphasizing the impact of arts organizations on the local economy (Cohen 1994; Costello 1998; Cwi 1980a; DiNoto and Merk 1993; Port Authority of New York and New Jersey 1983; Stern 2001; Stern and Seifert 2000; Travers, Stokes and Kleinmann 1997). Here I have simply provided a quick survey of the definitional terrain of arts studies. The broader point to be made is simply that it is crucial to define precisely what are "the arts" that one is studying, because different arts activities are likely to lead to a different set of outcomes. Furthermore, the use of vague and diverse definitions of the "arts" makes comparability and accumulation across studies very difficult.

Defining "impact" -- As this discussion illustrates, defining the scope of what is meant by the "arts" goes some length towards delimiting their potential impact. (For example, a school arts program is not likely to have an appreciable impact on the economy of a city.) Like the arts, there are also a number of dimensions along which the scope of the impact(s) ought to be clarified: whether the impact is on individuals, institutions/organizations, communities or the economy; whether it is direct or indirect (e.g., does it indirectly affect communities by affecting individuals?); whether the impact is short-term or long-term; whether impacts are greater for some groups and individuals than for others; and whether the impact is social, cultural, psychological, economic, and so on. These dimensions are often under-specified, and as a result findings can be easily inflated or over generalized (e.g., a small, short-term impact on a subgroup of people might be viewed as an enduring impact on a broader

⁹ Dollars spent in a community by cultural tourists are only one way in which the arts are said to have an economic impact.

class of residents). Furthermore, as Cwi (1987) notes, the policy relevance of most arts program evaluations studies is limited, because of their failure to adequately specify the impact that the program is intended to have.

Defining “community” – Community can be defined in a variety of ways: as a geographic region, municipality, neighborhood (itself open to a variety of definitions), or ethnic group. In general, researchers use one of two criteria in defining community: propinquity and group membership. With the first criterion, researchers define community in terms of people’s proximity to one another and study things like neighborhoods, schools, cities or SMSAs. For example, the Social Impact of the Arts Project (SIAP) usually uses census ‘block groups’ as part of its definition of neighborhood, and also historically institutionalized, widely recognized neighborhoods, such as Germantown in Philadelphia or the ‘south side’ of Chicago (Stern 2001). Another common way to define community is as a legally distinct area, such as a town, city or state (Cwi 1980a; Cwi 1982; Cwi and Lyall 1977; DiNoto and Merk 1993; Gazel 1997; Mitchell 1993; NALAA 1994; Perryman 2001). Studies using this criterion usually focus on the economic impact of the arts, so examining a well-defined tax base makes sense. Alternatively, researchers may study community defined by group membership, categorizing people on the basis of race/ethnicity, national origin, gender, sexual orientation, occupation and so forth.

Researchers may use one of two methods for classifying people into communities: one method defines community on the basis of criteria imposed by the researcher; the other defines community in accord with individuals’ self-identification (see Stern et al. 1994 for an example of this). Note that the basis of people’s self-identification can come from many sources. It may be coterminous with proximity- or legally-based definitions (e.g., “I’m from Germantown,” “I’m from Robert Taylor Homes” or “I’m from Atlanta.”) People may also self-identify on the basis of group membership. Some community-based arts programs are organized around such communities. For example, one program studied by Williams (1995) was designed to have aboriginal children in a rural Australian town express their culture. It is

important to distinguish between researcher-imposed vs. self-identified definitions of community. It is possible, for example, that in order to understand if and how the arts contribute to such subjective outcomes as increased trust of others, greater pride in one's community and motivation to work towards collective ends, then one needs to take an inductive approach to this question of community (e.g., using definitions that members themselves put forward). And if there is a disjuncture between the researcher's definition of a community and the self-identifications of its members, then the researcher may fail to find evidence of, for example, social solidarity (because s/he would be looking in the wrong places for evidence).¹⁰

Whether researcher-imposed or not, clearly specifying the scope of the community is crucial when trying to think about how the arts impact a community directly, as well as the related problem of aggregation.

The Problem of Aggregation

One of the more vexing issues confronting anyone wishing to understand the impact of the arts on communities is the question of how to link micro-level effects on individuals to the more macro level of the community. Except for economic impact studies, virtually every arts impact study examines how the arts affect individuals (though see Stern 1999; 2001), whether by improving their health (Bygren, Konlaan and Johansson 1996; Costello 1998), their self-esteem (Weitz 1996), their skills, talents and knowledge (Fiske 1999; Winner and Hetland 2000), or their tolerance of other cultures (Matarasso 1997; Williams 1995). In some cases, researchers have also argued that the creation of arts programs (usually made possible by government or private grants) increases the capacities of arts organizations, for example by enhancing their ability to work with local government agencies (Stern and Seifert 2002; Williams 1997). In this case, the problem becomes one of aggregating organizations rather than individuals.

¹⁰ I am grateful to Paul DiMaggio for suggesting these last two points.

Note that defining the scope of the community in question is critical to the problem of aggregation. For example, other things equal, a small community arts program is more likely to have an impact on people in the neighborhood in which it operates than on people living on the other side of town. But without having to define community, at least five general ways in which individual/organizational-level effects might aggregate can be distinguished:

1. Most obviously, one could simply talk in terms of the percentage of individuals/organizations in a population that are affected. Social capital is typically conceived of in such a manner, where a community with a higher percentage of individuals participating in civic groups and/or a greater density of such groups is considered to have greater social capital. Hence, if arts programs get more individuals involved in community groups, then they increase the community's social capital.
2. Closely related to this is the idea that there may be threshold levels or 'tipping points' (Gladwell 2000) at which individual/organizational-level effects begin to have community-level consequences. In this case, as in number 1 above, an unresolved issue is determining the level at which these effects can properly be said to have an impact on the 'community.'
3. The presence of the arts and/or participation by community members may have an impact on community norms or the "opinion climate." For example, the presences and performances of a multicultural theater may reinforce norms about multiculturalism and diversity or free expression..
4. To the extent that arts organizations serve as a catalyst in the creation of ties between dispersed individuals and organizations (who would not otherwise establish ties), these networks, may then be used to accomplish other community goals.
5. Communities may be affected when a few key individuals and/or organizations are affected. For example, a successful community arts program may influence the perceptions of key government officials and make them

more likely to support such programs in the future. Or successful arts-based neighborhood revitalization programs targeted at particular crime-ridden neighborhoods or juvenile offenders may lower the overall crime rate.

6. Finally, individuals and groups involved in the arts can be said to affect the community by creating public goods.¹¹ The value of arts as a public good (its contingent valuation) is usually measured by willingness-to-pay surveys¹² (CPC 2002; Kling, Revier and Sable 2001; Sable and Kling 2001; Seaman 1997; Throsby 2001).

Selection Problems

As with much social research, arts impact studies typically suffer from selection bias problems, which make it difficult to identify clearly the causal role of the arts.¹³ This problem is usually expressed by the truism that ‘correlation is not causation.’ For example, research indicates that people who participate in the arts are healthier and happier (Bygren, Konlaan and Johansson 1996; Costello 1998; Thoits and Hewitt 2001). But, does this mean that arts involvement makes people healthier and happier, or that such people are more likely to get involved in the arts? Do arts programs build social capital, or are communities with higher social capital more likely to initiate arts programs? Usually, the answer to such questions is ‘both.’ On average, healthier people are more likely to volunteer in arts programs, but that activity likely improves their health as well (Thoits and Hewitt 2001). Communities with greater social capital are more likely to initiate arts programs, but those programs may further promote the building of social capital. Most likely, health or social capital

¹¹ Outdoor sculpture is a good example of public goods, since many people can enjoy it. But, people don’t necessarily need to use/enjoy art for it to be a public good.

¹² Willingness-to-pay surveys ask respondents how much they would be willing to pay (usually in taxes) to support some artistic activity (e.g., “How much would you be willing to pay in taxes to support the NEA?”). People who don’t patronize the arts still report that they are willing to pay to fund them, and this is interpreted to mean that the arts are valuable to them.

¹³ Generically, selection bias means that the sample (i.e., the people and/or organizations that one is studying) is not representative of the entire population, leading to conclusions that are not valid. In arts research, the most pernicious of these is self-selection bias: since people who choose participate in the arts may be different from others, that difference may explain the observed outcome rather than the arts activity.

would not have improved in the same way and to the same degree had the arts programs been absent. When seen from this perspective, selection issues – when recognized and handled appropriately – arguably do not present an intractable problem to arts impact studies.

Lack of Appropriate Comparisons

From a policy perspective, however, the issue is no longer whether the existence of the arts has a beneficial impact, but whether money spent on arts programs will have *more* of an impact than other programs. Indeed, one flaw with the literature on arts impact is the lack of studies that compare the arts with other programs or industries. The key question for policy-makers (or grant-givers) is this: given some pre-defined goal (improving the economy, attracting tourism, improving education, reforming at-risk adolescents, etc.), how can that goal be most effectively reached? Thus, the issue changes from ‘did this program work at all’ to ‘did this program work better than another?’ Instead of ‘what are the benefits of the arts,’ the question becomes ‘what are the opportunity costs¹⁴ of using this money to fund the arts?’ For example, are arts programs for at-risk youth more effective than the Boy Scouts or midnight basketball? Do arts programs draw people away from other high-impact activities in which they would otherwise be involved, such as environmental activism or charity; would public money be better spent on things like transportation infrastructure or police? Determining whether a program is more ‘effective’ than another is of course no simple matter and demands precise definition of the goal of the program, but none of the studies I reviewed adequately addressed this issue. The difficulty of the comparison is compounded by the fact that many of the benefits we associate with the arts, like increased creativity or feelings of well-being, are ‘intangible’ and therefore difficult to measure. However, to the extent that the arts do potentially provide something unique, the lack of comparative studies make it that much more difficult to concretely demonstrate the unique contribution of the arts.

¹⁴ Opportunity costs basically mean that when you spend your money or time in one activity/investment, there is a cost of not being able to use that time or money in some other activity/investment.

Negative Externalities

In addition to ignoring opportunity costs, arts impact studies typically ignore the potentially negative impacts of the arts. For example, given the broad definition of the ‘arts’ found in many studies, the negative impact of such events as raves or rock concerts – for example noise pollution and delinquency – largely goes ignored (though see Gazel [1997] for an economic impact study of a Grateful Dead concert in Las Vegas that took into account the city’s extra expenditures on security for the event). Or, if an arts’ program builds social solidarity among some ethnic group, could this lead to greater balkanization of the community? Zukin’s (1989) study of New York City shows that the presence of arts activities and artists in a poor neighborhood may be a harbinger of gentrification (though see Stern [1999] for evidence from other cities that the presence of arts organizations leads to lasting diversity). To the extent that studies do examine failed programs, they tend to focus on the causes of failure rather than its consequences (Matarasso 1997; Williams 1997). In short, those who investigate the impact of the arts need to be more aware of potential negative as well as positive impacts.

Lack of Adequate Data

Most arts impact studies are based on cross-sectional data, making inferences about selection and the causal role of the arts exceedingly difficult. The lack of over-time data also makes it impossible to see how long the effects of an arts program persist.¹⁵ Furthermore, the sample sizes of many studies are too small for making proper statistical inferences.¹⁶ In many instances, researchers employ multiple or comparative case study approaches, for example by studying several different community arts programs. Despite the strengths of this type of analysis for describing

¹⁵ Williams’ (1997) study in Australia did follow some of the communities she studied for several years after the initial program; this enabled her to draw inferences about what factors lead to sustained impact.

¹⁶ Statistical inferences (for example, determining with what degree of confidence we can say that children in arts programs do better in school) are based on the premise that the sample is representative of the entire population. The representativeness of small sample sizes cannot be guaranteed with a high level of confidence.

in detail the supposed consequences of particular arts programs on particular individuals, these studies are limited in a number of ways:

First, they tend to rely exclusively on the subjective accounts of people involved in the art programs or audience members in order to support their claims – in short, they tend to be anecdote-rich and evidence-poor (though perhaps there’s an argument to be made that a mountain of anecdotes serves as some kind of evidence). The fundamental question here is whether impact can be *measured* solely or largely on the basis of these accounts, especially considering that participants almost always self-select into participation. What would happen if people were randomly assigned into an “arts treatment” group? This is closely related to another problem with these, as with other arts impact studies, which is that they tend to sample only treated groups. For example, questionnaires go only to people who are centrally or closely involved in a particular arts program, rarely asking community members what consequences the program had on them (though see Matarasso 1997). Also, evaluation studies only look at organizations or communities that won the supporting grant (whose impact the study is intended to measure), never comparing it with a similar community that didn’t win a grant, let alone one that never even applied. No doubt it is especially difficult to create a quasi-experimental design in applied social science, but arts impact research seldom makes an effort to achieve this goal. (One problem, of course, has been lack of adequate funding to undertake such an effort.) More generically, the problem with in-depth case studies is that they are rarely representative of the overall population.

Specification of Context Effects and Intervening Factors

Researchers studying the impact of the arts are rarely sensitive to contextual or intervening factors that influence the outcomes they find. This is important for generalizing from the findings of a specific study. To take a simple example, many studies claim that the arts have a beneficial economic impact. However, it is likely that this impact varies depending on the size of the community under discussion and

the size and density of arts organizations/events. Thus, in order for the arts to make an appreciable (and perhaps measurable) impact on the economy of a large city, it will likely require the development of an arts district (such as the Temple Bar in Dublin, see Costello 1998). An annual drama festival is likely to have little economic impact on a large city (though it may have an appreciable impact on the neighborhood in which it is located), but may be a decisive factor in the economy of a small town (Mitchell 1993). And local community arts projects are likely to have little economic impact. The National Association of Local Arts Agencies study is one of the best to date in selecting arts activities of various sizes across a wide range of municipalities (Cohen 1994). The point is simply that arts impact researchers need to begin to think more seriously about the conditions under which their results do – or do not – generalize.

CONCLUSION

Research on the how the arts impact communities is a burgeoning and wide-ranging field of research. Despite the variety of research subjects and methodologies alive and well in the field, there are a number of avenues this literature has yet to explore. For example, researchers study formal groups and organizations to the exclusion of more informal groups, such as local neighborhood knitting groups and the like. Case studies tend to focus on arts programs developed for marginal populations (like at-risk children); it would be interesting to see what could be learned from comparing these programs to ones where most of the participants are middle- or upper-middle class. Also, researchers often study community arts programs that have some kind of political or social goal: what might be learned by comparing these organizations to those that have no such goal? And in terms of determining their relative economic impact, we need to know whether arts organizations tend to spend more money in the local economy and on locally-produced goods than do other organizations/businesses. These examples point to a larger problem with the research in this field, especially those that use multiple, in-depth case studies: the cases are

generally not chosen in such a way as to gain much empirical ‘leverage’ from the comparison. Cases appear to be selected on the basis of capturing the widest diversity of programs possible – sometimes with an implication that this will ensure representativeness. The most that comes from this sort of comparison is a list of some factors that appear to affect the relative success of the programs. Researchers need to think more about the logic driving their case selection, so that they can get more from their comparisons.

The criticisms that I have enumerated in this paper could apply to most bodies of social research. But, the field of cultural policy studies is young and resources are scarce. Therefore, it is perhaps more important than in other fields that small investments in research yield strong results that can be leveraged to advance public policy and private philanthropy. As a result, it is especially incumbent upon arts researchers to carefully specify their definitions and think critically about the theoretical and empirical issues confronting them when attempting to take the measure of culture.

REFERENCES

- Albert, Maria. 1995. "Impact of an arts-integrated social studies curriculum on eighth graders' thinking capacities." Pp. xi, 344 leaves ; p., 29 cm. Lexington, Ky.: University of Kentucky.
- Angus, John. 1999. *An Enquiry concerning Possible Methods for evaluation Arts for Health Projects*. Bath, UK: Community Health.
- Azmier, Jason J. 2002. "Culture and Economic Competitiveness: An Emerging Role for the Arts in Canada." Canada West Foundation.
- Baklien, Bergljot. 2000. "Culture is Healthy." *International Journal of Cultural Policy* 7.
- Ball, Susan, and Clare Keating. 2002. "Researching for Arts and Health's Sake." in *2nd Conference on Cultural Policy Research*. Wellington, NZ.
- Bendixen, Petere. 1997. "Cultural Tourism - Economic Success at the Expense of Culture?" *International Journal of Cultural Policy* 4.
- Bryan, Jane. 1998. *The economic impact of the arts and cultural industries in Wales*. Cardiff: [Cardiff Business School?].
- Bygren, Lars O., Boinkum B. Konlaan, and Sven-Erik Johansson. 1996. "Attendance at cultural events, reading books or periodicals, and making music or singing in a choir as determinants for survival: Swedish interview survey of living conditions." *British Medical Journal* 313:1577-1580.
- Chabris, Christopher F, Kenneth M Steele, Simone Dalla Bella, Isabelle Peretz, Tracy Dunlop, Lloyd A Dawe, G Keith Humphrey, Roberta A Shannon, Johnny L Jr Kirby, CG Olmstead, and Frances H Rauscher. 1999. "Prelude or requiem for the "Mozart Effect". " *Nature* 400:826-828.
- Cohen, Randy. 1994. *Arts in the local economy: final report*. Washington: National Assembly of Local Arts Agencies.
- Costello, Donal Joseph. 1998. "The Economic and Social Impact of the Arts on Urban and Community Development." Pp. 1333-A in *Dissertation Abstracts International, A: The Humanities and Social Sciences*. Pittsburgh: University of Pittsburgh.
- CPC. 2002. "Contingent Valuation of Culture Conference." Cultural Policy Center at the University of Chicago. <http://culturalpolicy.uchicago.edu/cvmconf.html>.
- Cwi, David. 1980a. *The economic impact of ten cultural institutions on the economy of the Springfield, Illinois SMSA*. Springfield, Ill.: Center for the Study of Middle-size Cities Sangamon State University.
- . 1980b. *The role of the arts in urban economic development*. Washington, D.C.: Economic Research Division Economic Development Administration.
- . 1982. *The arts in New Jersey : status, impacts, needs*. Trenton, N.J.: The Council.
- Cwi, David, and Katharine Lyall. 1977. *A model to assess the local economic impact of arts institutions : the Baltimore case study*. Baltimore: Center for Metropolitan Planning and Research the Johns Hopkins Univ.
- DiMaggio, Paul. 1982. "Cultural Capital and School Success: The Impact of Status Culture Participation on the Grades of U.S. High School Students." *American Journal of Sociology* 47:189-201.
- DiMaggio, Paul, and John Mohr. 1985. "Cultural Capital, Educational Attainment, and Marital Selection." *American Journal of Sociology* 90:1231-1261.
- DiMaggio, Paul, Michael Useem, and Paula Brown. 1978. "Audience Studies of the Performing Arts and Museums: A Critical Review." Research Division, The National Endowment for the Arts.
- DiNoto, Michael J, and Lawrence H Merk. 1993. "Small Economy Estimates of the Impact of the Arts." *Journal of Cultural Economics* 17:41-54.

- Dolan, Teresa. 1995. *Community Arts: Helping to Build Communities? Taken from a Southern Ireland perspective*. London: City University.
- Dreeszen, Craig. 1992. "Intersections: Community Arts and Education Collaborations." *Journal of Arts, Management, Law and Society* 22:211-240.
- Eckstein, Jeremy. 1995. *The Contribution of the Cultural Sector to the UK economy*. London: Policy Studies Institute.
- Fiske, Edward B. 1999. *Champions of change : the impact of the arts on learning*. Washington, DC: Arts Education Partnership President's Committee on the Arts and the Humanities.
- Frey, Bruno S. 1998. "Superstar Museums: An Economic Analysis." *Journal of Cultural Economics* 22:113-25.
- Fritschner, Linda Marie, and Miles K. Hoffman. 1984. "The Community and the Local Art Center." in *American Sociological Association*.
- Gazel, Ricardo. 1997. "Beyond Rock and Roll: The Economic Impact of the Grateful Dead on a Local Economy." *Journal of Cultural Economics* 21:41-55.
- Gladwell, Malcolm. 2000. *The Tipping Point: How Little Things Can Make a Big Difference*. New York: Little, Brown and Company.
- Goss, Kristin. 2000. *Bettertogether : the report of the Saguaro Seminar on Civic Engagement in America*. Cambridge, MA: Saguaro Seminar Civic Engagement in America John F. Kennedy School of Government Harvard University.
<http://www.bettertogether.org/bt%5Freport.pdf>.
- HDA. 2000. *Art for health: a review of good practice in community-based arts projects and initiatives which impact on health and wellbeing*. London: Health Development Agency.
<http://www.hda-online.org.uk/downloads/pdfs/arts%5Fmono.pdf>.
- Hetland, Lois. 2000. "Listening to Music Enhances Spatial-Temporal Reasoning: Evidence of the 'Mozart Effect'." *Journal of Aesthetic Education* 34:105-148.
- Jackson, Ernest. 1979. "The impact of arts enrichment instruction on self-concept, attendance, motivation, and academic performance." Pp. v, 135 leaves : p., forms. New York: Fordham University.
- Kling, Robert W., Charles F. Revier, and Karin A. Sable. 2001. "Estimating the Public Good Value of Preserving a Local Historic Landmark: The role of non-substitutability and information in contingent valuation." Fort Collins, CO: Colorado State University.
- Krieger, Alex. 2001. "Community builders." *Architecture* 90.
- Laing, Dave, and Norton York. 2000. "The Value of Music in London." *Cultural Trends* 10.
- Landry, Charles, Lesley Greene, François Matarasso, and Franco Bianchini. 1996. *The Art of Regeneration: Urban Renewal through Cultural Activity*. Stroud: Comedia.
- Lynch, Ruth Torkelson, and Deanne Chosa. 1996. "Group-oriented community-based expressive arts programming for individuals with disabilities: Participant satisfaction and perceptions of psychosocial impact."
- Matarasso, François. 1997. *Use or ornament? : the social impact of participation in the Arts*. Stroud, Glos.: Comedia.
- . 1999. *Magic, Myths and Money : The Impact of the English National Ballet on Tour*. Stroud: Comedia.
- Matzke, Christine. 2000. "'Healthy community arts, healthy communities': Community Arts Conference, Exhibition Fair, and Festival." *Research in Drama Education* 5:131 - 139.
- McCarthy, Kevin. 2002. "Building an Understanding of the Benefits of Participation in the Arts." Unpublished proposal submitted by the RAND Corporation to the Wallace-Reader's Digest Funds.
- Mitchell, Clare J. A. 1993. "Economic Impact of the Arts: Theatre Festivals in Small Ontario Communities." *Journal of Cultural Economics* 17:55-67.

- Murphy, Eileen M. 1995. "The impact of cultural organizations on urban revitalization projects as exemplified in the Pennsylvania Avenue Development Corporation." Pp. iv, 85 leaves ; p., 29 cm. Washington D.C.: American University.
- NALAA. 1994. *Arts in the local economy: final report*. Washington: National Assembly of Local Arts Agencies.
- OAC. 2002. "Community Arts Organizations Program Guidelines." Ontario Arts Council.
- Ogilvie, Robert S. 2000. *Community building : increasing participation and taking action : prepared for the 7th Street/McClymonds Neighborhood Initiative*. Berkeley, Calif.: University of California Berkeley Institute of Urban and Regional Development.
- O'Hagan, John W., and Christopher T. Duffy. 1987. *The performing arts and the public purse: An economic analysis*. Dublin: The Arts Council/An Chomhairle Ealaion.
- Palmer, John P. 2002. "Bread and Circuses: The Local Benefits of Sports and Cultural Businesses." *C.D. Howe Institute Commentary* 161.
- Perryman, M Ray. 2001. "The Arts, culture, and the Texas economy: The catalyst for creativity and the incubator for progress." *Baylor Business Review* 19:8-9.
- Port Authority of New York and New Jersey, Cultural Assistance Center. 1983. "The Arts as an Industry: Their Economic Importance to the New York-New Jersey Metropolitan Region." New York, NY: Port Authority of New York and New Jersey.
- Preston, James C. 1983. "Patterns in Nongovernmental Community Action in Small Communities." *Journal of the Community Development Society* 14:83-94.
- Radich, Anthony J. (Ed.). 1987. *Economic impact of the arts: a sourcebook*. Denver, CO: National Conference of State Legislatures.
- Randall, Paula, Dian Magie, and Christine E. Miller. 1997. *Art works! : prevention programs for youth & communities*. Rockville, MD: National Endowment for the Arts and the Center for Substance Abuse Prevention.
- Remer, Jane. 1990. *Changing schools through the arts : how to build on the power of an idea*. New York: ACA Books.
- Rolph, Stephen. 2001. "Impact of the Arts: A study of the social and economic impacts of the arts in Essex in 1999/2000." Pp. 42. Chelmsford: Essex County Council.
- Sable, Karin A., and Robert W. Kling. 2001. "The Double Public Good: A Conceptual Framework for "Shared Experience" Values Associated with Heritage Conservation." *Journal of Cultural Economics* 25:77-89.
- SATC. 1998. *1997 opera in the outback : economic and social impact study*. Adelaide, S. Aust.: South Australian Tourism Commission Arts SA.
- SCDCAC. 2001. "The arts and culture in San Diego : economic impact report, 2000." San Diego, Calif.: City of San Diego Commission for Arts and Culture.
- Seaman, Bruce A. 1997. "Arts Impact Studies: A Fashionable Excess." Pp. pages 723-55 in *Cultural economics: The arts, the heritage and the media industries. Volume 2. Elgar Reference Collection. International Library of Critical Writings in Economics, vol. 80. Cheltenham, U.K.*, edited by Ruth ed Towse. and Lyme, N.H.: Elgar; distributed by American International Distribution Corporation Williston.
- Seham, Jenny C. 1997. "The effects on at-risk children of an in-school dance program." Pp. iv, 101 leaves ; p., 29 cm.: Adelphi University.
- Sharp, Caroline. 2001. "Developing Young Children's Creativity through the Arts: What Does Research have to Offer?" Pp. 36. Slough: National Federation for Educational Research.
- Singer, Molly. 2000. "Culture Works: Cultural Resources as economic development tools." *Public Management* 82:11-16.
- Stanziola, Javier. 1999. *Arts, government and community revitalization*. Ashgate: Aldershot, U.K.; Brookfield, Vt. and Sydney.

- Stern, Mark J. 1999. "Is All the World Philadelphia? A multi-city study of arts and cultural organizations, diversity, and urban revitalization." Philadelphia: University of Pennsylvania School of Social Work.
- . 2001. "Social Impact of the Arts Project: Summary of Findings." Philadelphia: University of Pennsylvania School of Social Work.
- Stern, Mark J, Laura Amrofel, Gina Dyer, and Alison Wok. 1994. "The Embeddedness of Community Cultural Institutions." Philadelphia: University of Pennsylvania School of Social Work.
- Stern, Mark J, and Susan C Seifert. 2000. "Cultural Participation and Communities: The Role of Individual and Neighborhood Effects." Philadelphia: University of Pennsylvania School of Social Work.
- . 2002. "Culture Builds Community Evaluation Summary Report." Pp. 62. Philadelphia: University of Pennsylvania School of Social Work.
- Strom, Elizabeth. 1999. "Let's put on a show! Performing arts and urban revitalization in Newark, New Jersey." Pp. 423-35 in *Journal of Urban Affairs*.
- Thoits, Peggy A., and Lyndi N. Hewitt. 2001. "Volunteer Work and Well-Being." *Journal of Health and Social Behavior* 42:115-131.
- Throsby, David. 2001. *Economics and Culture*. Cambridge: Cambridge University Press.
- Travers, Tony, Eleanor Stokes, and Mark Kleinmann. 1997. "The Arts & Cultural Industries in the London Economy." London: London Arts Board.
- Trent, Allen W. 2000. *Community : a collaborative action research project in an arts impact elementary school*. Columbus, Ohio: Ohio State University.
- Turner, Francesca, and Peter Senior. 2000. *A Powerful Force for Good: Culture, health and the arts- an anthology*. Manchester: Manchester Metropolitan University.
- Walesh, Kim and Doug Henton. 2001. "The Creative Community--Leveraging Creativity and Cultural Participation for Silicon Valley's Economic and Civic Future." San Jose, CA: Collaborative Economics.
- Weitz, Judith. 1996. *Coming up taller: arts and humanities programs for children and youth at risk*. Washington, DC: President's Committee on the Arts and the Humanities.
- Williams, Deidre. 1995. *Creating social capital : a study of the long-term benefits from community based arts funding*. Adelaide, S. Aust.: Community Arts Network of South Australia.
- . 1997. *How the arts measure up : Australian research into social impact*. Stroud: Comedia.
- Winner, Ellen, and Lois Hetland. 2000. "The Arts and Academic Improvement: What the Evidence Shows." *Special Issue of the Journal of Aesthetic Education* 34.
- Wollheim, Bruno. 2000. "Culture makes communities." York, England: Joseph Rowntree Foundation.
- Zukin, Sharon. 1989. *Loft Living: Culture and Capital in Urban Change*. New Brunswick, NJ: Rutgers University Press.



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Nesting Birds Need Your Help to Stay Healthy

By [Tom Palmer](#)

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For weeks many of us have been seeing birds flying with twigs in their bills.

Nesting season is under way.

Many birds nest in residential areas, which means they could be nesting somewhere in your yard.

Here are some tips to coexist with your feathered neighbors, courtesy of Suncoast Seabird Sanctuary and the Florida Fish and Wildlife Conservation Commission.

First, put away the trimmers for a while.

Successful nesting for songbirds involves concealment. You can help by not trimming trees and shrubs until nesting season ends in late June.

Also refrain from spraying chemicals around the nesting areas. The chemicals can harm the birds.

There's a chance you may see baby birds on the ground.

If the bird is featherless, it has fallen from the nest and you can help by simply putting it back. Don't worry about the parents rejecting it because of the "human smell."

Unlike deer and other animals that may reject young that have been touched by people, songbirds do not have a very well-developed sense of smell and will not notice anything amiss.

If you are dive bombed by an adult, it's because you're too close to the nest and regarded as a predator, not because you handled the chick.

If you see a young bird on the ground and it has grown feathers, chances are good it is trying to fledge. Birds learn to fly from the ground.

Having a nest in your yard can be fascinating for you and your children, but try to give the birds some space. Repeated visits can lead predators such as crows to the nest and can distract adults from the hard job of rearing their young.

[Nesting Birds Need Your Help to Stay Healthy](#) Tom Palmer



[TheLedger.com](#) April 16, 2003 12:00 AM

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Speaking of predators, keep your dogs and cats indoors or on a leash during nesting season.

And this time of year there's a chance you'll encounter nesting birds away from home, such as at the beach.

Intense coastal development has pushed colonies of groundnesting birds such as terns, skimmers and plovers to isolated spots along the coast or to rooftops near coastal or inland water bodies.

Numbers of many of these species, such as least terns and American oystercatchers, have been declining because of habitat loss.

One of the key challenges has been to protect the remaining nesting and resting areas for these species. If you see bird nesting areas at the beach, keep your distance and keep your pet on a leash to avoid disrupting the colony.

Regular disturbances will cause adults to abandon nesting areas, eggs and nestlings, causing numbers to further decline.

Many nesting areas, such as Shell Key and Honeymoon Island in Pinellas County and the colonies in Tampa Bay, are posted.

If you find a nesting area that has not been posted, you should report the location to the nearest Florida Fish and Wildlife Conservation Commission office so that it can be protected.

If you encounter a rooftop colony on a building where you live or work, avoid going on the roof during nesting season. Wildlife experts recommend screening off downspouts so chicks don't accidentally fall into them.

Many Audubon chapters monitor rooftop nesting colonies and would appreciate reports of rooftop colonies.

Finally, before dealing with any wildlife you find, it's good to consult a local nature center, wildlife official or someone else with experience.

For more information, check out the FWC Web site www.wildflorida.org or call the local FWC office in Lakeland at 863-648-3203.

WILDLIFE SURVEY

If you participate in wildlife observation regularly or only occasionally, add your numbers to the Florida Fish and Wildlife Conservation Commission's ESPN Outdoor Survey.

Most of the survey questions are oriented toward the agency's traditional hunting and fishing constituencies, which is a good argument for participating to let agency officials know that Florida's outdoor recreation community is becoming more diverse.

For some reason, the boat ownership category doesn't seem to recognize canoes and kayaks, and doesn't ask specific questions concerning wildlife observation activities.

The survey also asks about your outdoor recreation spending habits. This is important because economics is a key element in ecotourism.

I would encourage anyone who visits areas of Florida or anywhere else primarily for nature observation or study to make it obvious by supporting local merchants while you're there.

The online confidential survey is accessible on the FWC Web site www.floridaconservation.org.

Tom Palmer can be reached at tom.palmer@theledge.com or 863-802-7535.

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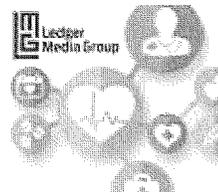
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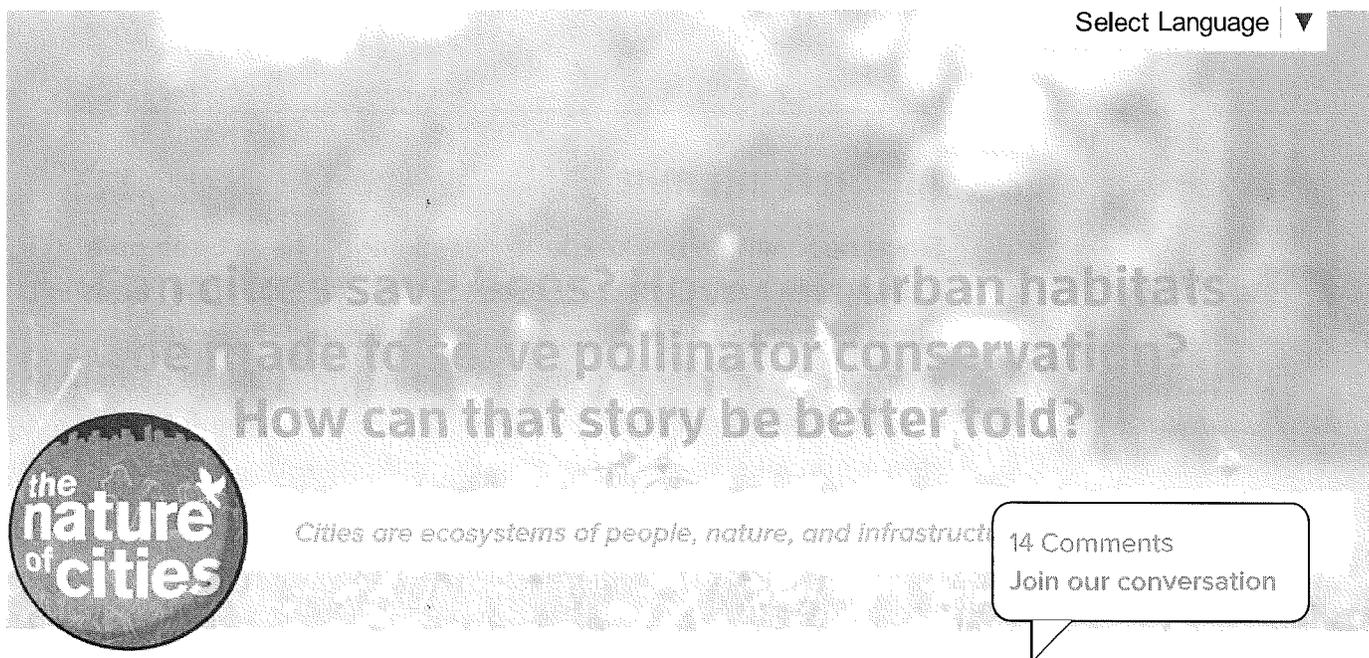
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About the Writer:
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David Maddox, PhD. is committed to the urban ecosystem and its importance for human welfare and livelihoods. He has worked at various levels of government, NGOs, and the private sector. He is Founder and Editor-in-Chief of *The Nature of Cities* and also a composer and published playwright.

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Introduction

Bees and pollinators have always been a part of the city landscape. Parks, private and community gardens, and green roofs all contribute to habitat for a diverse pollinator fauna in cities. Indeed, there is some evidence that cities might be refugia for some bee species.

But with increasing interest in urban-based conservation, agriculture and gardens, their presence has become more noticeable—and more important. Furthermore, bee and pollinator conservation is a key concern outside of cities, with habitat loss, indiscriminant insecticide use and other issues threatening bee species and pollinators generally.

What role can cities play in bee and conservation, perhaps through policy encouraging green space with appropriate plantings and a reduction in the use of pesticides?

How can this role be supported, by both public and private actors?

And how can story of urban pollinators be better told to propel the conversation about urban pollinator conservation and their critical services?



About the Writer:
Alison Benjamin

Alison Benjamin is co-founder of Urban Bees, which works with communities, companies and charities to help bees in cities by raising awareness about their role, improving forage and habitat for wild bees, and teaching responsible urban beekeeping.

Web
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Alison Benjamin

Since becoming a beekeeper a decade ago, I have been on a journey that has opened my eyes to what cities can offer bees in terms of forage and habitat, and how that could be vastly improved by transforming flower beds in our parks and gardens with nectar and pollen-rich varieties (instead of colourful but sterile annual displays), planting up roof tops with trees and shrubs that supply year-round bee forage, and leaving areas undisturbed where wild bees can safely nest.

I now see cities in a completely different light. A tree-lined street has become an aisle in a bee supermarket, fully stocked for a short time during the year, and completely empty at others; a park is like a larder full of bee-friendly free ingredients; and the grey expanse of roofs that cover our cities are deserts where no food grows.

In London alone, we are currently paving or decking over gardens and losing the equivalent of two and a half Hyde Parks every year which, in addition to wiping out potential bee forage, exacerbates problems such as flooding, air pollution and

rising temperatures caused by the heat island effect. If we ditch the decking and turn our cities into a vast bed and breakfast for bees, we not only feed and house bees, we also make cities more resilient for us to live in, too. Trees, as well as often providing the most abundant source of food for bees in cities and habitat for myriad species, soak up rainwater, store carbon, remove pollution and provide cooling canopy cover for us.

This week, I'm helping to plant new trees in a local inner London square. The trees have been chosen by myself in conjunction

What we need to ask is not what cities can do for bees, but what bees can do for cities to make them better, more resilient places for all of us?

with the local council's arboricultural officer to extend the foraging season for bees: a white cherry for early nectar and a Japanese pagoda for forage in late summer.

But the event will do much more than feed bees. It will bring the community together, making us all feel good for helping bees, making the square so much more attractive at different times of the year—from the blossom in spring to the leaves' autumnal colour—and allow us urbanites to reconnect with nature and one another; in summary, it will increase our sense of wellbeing.

For this reason, it's become clear to me that what we need to ask is not what cities can do for bees, but what bees can do for cities to make them better, more resilient places for all of us?

By pollinating plants, from the fruit trees in our backyards to the vegetables on our allotments, bees are increasing the yield of fresh, locally produced food we can eat in towns and cities. And their pollination services are providing much-needed fruits and berries for the wildlife we share our cities with, from songbirds to small mammals, as well as allowing flowers and plants to propagate in even the most barren looking wastelands.

In addition to the hugely important role bees play in promoting biodiversity in our urban eco-system, they also play a much undervalued role in reconnecting city dwellers with nature and, in so doing, improve our mental state. Most of us live in cities and, by 2050, 75 percent of the human population will live in urban centers. Nature deficit disorder—a term coined to describe the negative impact of a disconnect with the natural environment—can exacerbate behavioural problems in children and add to stress levels in adults. Research shows that nature has restorative and therapeutic powers. But if we sit in offices all day, oblivious to the changing seasons and natural world around us, how do we benefit from this eco-healing?

Bees, that's how. By having a hive and learning about how honeybees work, or planting bee-friendly flowers in a window box, or making a DIY bee hotel where cavity-nesting solitary bees can check in to lay their eggs, people—from school children to alienated young people and even busy adults—in cities are learning about the nature on their doorstep. What's

more, they are getting to know work colleagues or neighbours in the process and breaking down the social isolation that blights urban existence.

So by making cities more bee-friendly, we are actually making them much more human-friendly places for us to live and work.



About the Writer:
Sarah Bergmann

Sarah Bergmann is a design thinker working across ecology, design, planning and culture. She is the founder of the Pollinator Pathway, a living essay in landscape that responds to humanity's influence as an ecosystem.

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Sarah Bergmann

Eight years ago, I began developing a project called the *Pollinator Pathway*. The project is both a vision for an international system of design to connect cities, farms and wilderness, and a living essay on nature in the age of humanity. The project has ignited global conversation and is considered a massive cultural success, attracting scientists, curators, planners, architects and designers alike. Through this project, I'm investing what will ultimately be ten years into exploring history, botany, urbanism, social systems, environmental thought and systems of real estate—all with the question of how we might best build new systems and paradigms in the coming hundreds of years.

We are in the midst of a global transformation of landscape, from wild and biologically diverse to agrarian and urban dotted by fragmented green spaces, and with it, an increasingly globalizing ecology. We are essentially designing landscapes of cosmopolitan species—those species and ecosystems that can thrive globally, often in the systems we create (and the honeybee is one such species).

I think we should eliminate the entire concept of saving species. Therefore, I have a counter question: how can cities be better participants in a global ecology?

I think to answer any of these questions about cities, we need to think a great deal more about relationships between systems, and a great deal less about certain species or even several species. In fact, I think we should eliminate the entire concept of

saving species. Therefore, I have a counter question: how can cities be better participants in a global ecology?

I think some of the most logical ways that cities can contribute to the ecology of the planet—to become active participants in the biosphere, so to speak—is through (at minimum) only using underused space in ecology projects, very definitely not adding more honeybees to our landscapes, connecting landscapes—and, above everything, developing policy and funding mechanisms that pair the development within cities with support for the connectivity of landscape outside cities.

Then—however rudimentary a level it may be—we’re beginning to make a real system of exchange, and thinking more like an ecosystem.



Katherine Baldock

Land use change from natural habitats to human-managed landscapes is generally perceived as having a negative impact on wildlife. Yet recent research indicates that towns and cities can provide suitable habitat for at least some groups of insect pollinators, particularly bees.

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Katherine Baldock is a researcher based at the University of Bristol, with an interest in pollinator communities, ecological networks and urban conservation.

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Compared to agricultural landscapes, urban areas are smaller in size (e.g. approximately 70 percent of U.K. land is managed for agriculture, whereas 7 percent is classified as ‘urban’); therefore, conserving pollinators requires action by both rural and urban land managers. Yet urban areas are home to over half of the global human population and, with urbanisation predicted to increase to accommodate an increasing global population, cities are likely to be increasingly important locations for wildlife conservation.

Several recent studies have shown that towns and cities can contain high pollinator diversity, and that bee diversity can be as high as, or even greater than, in nearby rural areas. This

Despite the knowledge gaps we need to address, there are steps we can take to ensure that urban habitats provide for

suggests that urban areas can provide suitable food and nesting resources for at least some native bee

pollinators and thus aid in their conservation.

species. Gardens comprise approximately 25 percent of the urban landscape in the U.K. and gardening is a popular activity, so gardens are likely to provide important floral resources throughout the year in towns and cities. It is important to remember, though, that bee species vary in their habitat requirements and urban living may not suit them all. There are more than 270 bee species in the U.K. and approximately 20,000 species worldwide. Bees vary in their nesting habits, floral preferences and the time of year at which they are active, all of which are likely to affect their survival in urban habitats. Generalist species, including many of the bumble bees, can forage on a wide range of plant species and may be more suited to urban areas. Indeed, research has shown that bumblebee colony growth rate and nest density in suburban gardens can exceed that found in the countryside. In contrast, several studies have found floral specialists to be rare in cities.

What about the other pollinators? In temperate northern Europe, other pollinator groups include beetles, wasps, butterflies, moths and flies. These insects vary in their efficacy as pollinators, though recent research shows that non-bee insects are globally important crop pollinators. To support a population of a particular species, all of the species' resources (e.g. larval food plant, nesting substrate, overwintering sites) must be available.

So can cities save pollinators? Research has shown that at least some species are able to use urban habitats. The bottom line, though, is that there is still much we don't know about the habitat requirements for many pollinator groups and we need a lot more research to find out which pollinators use urban habitats worldwide.

Despite the knowledge gaps we need to address, there are steps we can take to ensure that urban habitats provide for pollinators and thus aid in their conservation. All pollinators feed on flowers, so increasing the numbers of flowers that provide good sources of nectar and pollen is essential. We need to plant a variety of flowers (different pollinators feed on different plants),

to make sure nectar and pollen are available throughout the year and also to consider location. Creating corridors of favourable habitat will enable movement and dispersal of pollinators both within urban landscapes and between urban and adjacent rural habitats, thus increasing habitat connectivity and helping to maintain healthy pollinator populations at regional and national levels. Projects such as the Buglife-led [B-Lines](#) are seeking to create large-scale habitat corridors to achieve just this. It's not just about the flowers, though: efforts to maintain and create pollinator habitat must consider other resource needs, including nesting sites.

How do we make this happen? The number of people and organisations involved in managing urban habitats is both a challenge and an opportunity. Local authorities must be on board to ensure that public land is favourably managed, but essentially anyone with access to land can do their bit, as well as encouraging neighbours, employers, local businesses and schools to take action. Recognition by and support from governments in the form of national pollinator strategies or action plans, as is the case in [England](#), [Ireland](#) and the [U.S.](#), among others, is important in uniting stakeholders in both rural and urban areas to achieve shared goals.

Cities, and the people in them, can play an important role in helping pollinators. Managing our urban areas better for wildlife as a whole is part of the solution, but we must also ensure that we conserve natural habitats wherever possible.



About the Writer:
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Mark Goddard

While urban habitats will never be a panacea for pollinator conservation, there are two important reasons why insect pollinator ecologists are increasingly turning their attention to towns and cities. First, urban habitats could be acting as refugia from some of the threats facing wild pollinators in agricultural landscapes. The rather limited data we have on pollinators (which is based on haphazardly collected records rather than systematic monitoring programmes), suggests that most pollinator species are in decline. The causes for bee declines appear to be multi-faceted and include parasites, pesticides and

biodiversity in urban green spaces, in particular private gardens.

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a lack of flowers. Although urbanisation is an important cause of habitat loss globally, the majority of these threats to pollinators appear to be primarily occurring in non-urban land. Second, and especially in the developed global north, the majority of people live in cities. Pollinators, especially bees and butterflies, are charismatic and apparent emblems of biodiversity that people enjoy sharing their parks and gardens with. If we lose pollinators from cities, we don't just lose a pollination service, we also lose the psychological benefits that we gain from urban biodiversity.

Although research on urban pollinators has been increasing, most of the studies to date have been relatively small in scale, often focusing on a few urban habitats in a single city.

The majority of the public remains ignorant to the true diversity of wild pollinators.

However, a notable exception was a recent nationwide study that asked 'Where is the U.K.'s pollinator biodiversity?' By systematically surveying pollinators in 12 urban areas and comparing these urban pollinator communities with those of nearby farmland and nature reserves, Katherine Baldock and colleagues on the Urban Pollinators Project were able to show that towns and cities were just about as good for pollinators as farms and nature reserves. Moreover, when just looking at the bee species, urban areas were significantly more species-rich than farmland.

So, taken as a whole, it appears that cities can compare favourably to other habitats. But urban environments are notoriously heterogeneous, ranging from car parks and industrial estates to gardens and nature reserves. The second part of the Urban Pollinators Project sought to discover the urban pollinator 'hot spots' by comparing pollinator communities in nine different urban habitats across four U.K. cities. This work was followed up by a U.K.-wide experiment to investigate how best to enhance urban green spaces for pollinators. In partnership with local councils, schools and seed companies, members of the Project created 60 flower meadows across the U.K., including perennial meadows with only native species, and annual meadows containing mostly non-native species.

As the results emerge from the Urban Pollinators Project, we will certainly learn more about the value of towns and cities for pollinating insects and what we can do to make them better. But there is still a great deal more research required. By surveying insects visiting flowers, the Urban Pollinators Project was able to produce plant-pollinator networks for urban areas, but food (nectar and pollen) is not all that pollinators need to survive. Pollinators could also be nest-site limited in cities, and the popularity of 'insect hotels' (at least for cavity-nesting solitary bees) suggests that, for some wild pollinators, this is a real possibility. We also don't know much about pesticide use in urban areas and its impact on pollinators, while other urban hazards such as pollution (e.g. diesel fumes) and vehicle collisions may well be having detrimental effects on urban pollinators. If cities are really to make a meaningful contribution to pollinator conservation, then an interesting question is whether they might act as a source habitat from which pollinators 'spill over' into surrounding non-urban land. There is some limited evidence that urban-rural spill-over can happen, but not enough to draw any firm conclusions.

Well publicised pollinator declines have stimulated policymakers in the British Isles, with national pollinator plans emerging in the last few years for Wales, then England and, most recently, Ireland. All of these strategies highlight the contribution required by urban land managers, and a recent policy note summarises the best available evidence for how to manage urban areas for insect pollinators. For instance, gardeners in the U.K. are being urged to plant both native and exotic plants to attract pollinators, whilst the creation of wildflower areas and relaxed mowing regimes can lead to increased pollinator abundance in amenity grassland. Urban landscaping to support pollinators is gradually becoming mainstream in the U.K., from the meadows of the London Olympic Park through to the River of Flowers in the road sides of Rotherham. At larger scales, initiatives are underway that seek to improve connectivity and facilitate dispersal between these pollinator-friendly habitat patches, e.g. the B-Line for London and Oslo's Pollinator Passage.

At the heart of these various projects is the fact that people, at least on one level, 'get' urban pollinator conservation. Scientists have been broadly successful in communicating the message

that pollinators are declining and people can readily understand the benefit of planting flowers in their own backyard or local park to do their bit to help the bees. But it's not quite that simple. The majority of the public remains ignorant to the true diversity of wild pollinators. Many are only aware of bees and many of those think that bees are only one species—the domesticated honeybee. But of the thousands of insects sampled during the Urban Pollinators Project, bees comprised up to a third of records and honeybees just 7 percent. Most urban pollinators are flies, and most of the bees are bumblebees and solitary bees. Maybe it doesn't matter that 93 percent of urban pollinators remain mysterious to many of us, but ask the schoolchild who's just seen a live colony of bumblebees for the first time or the mother of the inner city child overwhelmed by an urban flower meadow and they will tell you a story of pollinator conservation that truly brings the city alive.

Tina Harrison

Cities often support high local diversities of pollinators, particularly bees. At the same time, cities support a subset of the pollinator species in a surrounding region. Do these urban pollinator communities contribute to the total diversity of pollinators in a region? Is it possible—or practical—to increase a city's contribution to regional pollinator diversity by restoring species that are currently missing from the urban pollinator community? The answers depend on characteristics of the species themselves.

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Pollinators that are successful in cities are often very common in other habitats in the surrounding region. These species may provide great value within the city by pollinating urban crops, for example. It is possible that supporting regional abundance of common species has unappreciated long-term

In my own collections, I have found some native bee species almost exclusively in towns and small cities, and rarely in nearby agriculture and forest habitat.

importance for regional biodiversity. However, when weighed against the immediate needs of uncommon, vulnerable species, conserving habitats that support mostly common species does not help regional pollinator diversity.

On the other hand, cities can support regionally rare pollinators. Some pollinators may be dependent on urban habitat because habitats outside cities are degraded, destroyed or otherwise unavailable. In my own collections, I have found some native bee species almost exclusively in towns and small cities, and rarely in nearby agriculture and forest habitat. Why? Habitats outside the towns are certainly altered from a “natural” state, but still support flourishing communities of other native bees. Without knowing their specific habitat needs, all I can say is that urban habitats appear to be important in keeping these native bees abundant in the regional species pool.

Of the pollinator species that are missing from an urban area, I imagine two groups that are practical to restore. The first group includes species that are able to thrive in cities, but are generally uncommon and unlikely to be detected at sites with low numbers of individuals. These species can be restored by adding commonly limiting resources like flowers, which raise overall abundance of pollinators at a site. The second group may also thrive in cities, but commonly lacks one or two key resources. An example may be a habitat generalist/flower specialist like *Peponapis pruinosa*, which appears on squash and cucumber blossoms in community gardens in New York City. We can encourage these species to colonize urban habitats simply by adding the specific missing resource. Restoring either uncommon or specialist species in urban habitat is likely helpful for conserving regional diversity.

Many other pollinators are sensitive to a complex of environmental changes associated with urbanization that cannot be redressed by adding flowers. These include many habitat specialist pollinators that are consistently missing from urban pollinator surveys, such as spring *Andrena* bees associated with mature forest. Habitat specialists are priority species for conserving regional diversity, and mostly benefit from conservation efforts outside of the city. Nevertheless, we can support some of these species by protecting fragments of

natural habitat within cities. And in some cases, it may be practical to widely integrate natural habitat into urban land use without loss of value to humans. For example, in the southwestern U.S., xeric backyard gardens that replicate native desert habitat appear to support much of the native desert bee community. If habitats outside of cities are extremely degraded, for example by intensive agriculture, then conserving regional pollinator diversity will require using these strategies to maximize the proportion of regional species that can survive within urban boundaries.

I suspect that natural and agricultural habitats still support the lion's share of regional pollinator diversity. With respect to this important conservation goal, the benefits of urban pollinator conservation are probably outweighed by opportunity costs to conservation efforts outside the city. But since pollinator conservation within cities serves other goals, making it count towards regional diversity conservation should be pursued as a positive bonus.

Denise Mouga

The potential consequences of pollinator decline on the preservation of biodiversity and stability of food crop yields should guide the policies of pollinator conservation.

Even though urbanisation has a negative effect on insect fauna, wild bees are found in urban environments. Urban bees are those that lived in an area prior to urbanization and were able to adapt to anthropogenic alterations to the environment besides the exotic species that have become naturalized in there.

About the Writer: Denise Mouga

Dr. Denise Mouga is a researcher with 20 years of experience working on bees and pollinators' interactions with natural resources. She works in Brazil.

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Natural areas are shrinking worldwide due to human interventions in the environment and it has been observed that urban areas have been progressively occupied by populations of non-domesticated species, thus turning into havens for

The goal of offering more floral resources for bees in urban areas can be achieved by encouraging the growing of ornamental bee plants.

wildlife. So, we find native bees living spontaneously in natural areas but also in urban areas where they exploit existing open spaces (gardens, orchards, squares, parks, sports fields, clubs, vacant lots, etc ...) with flowering plants including ruderal plants, ornamental, fruit trees, vegetables, weeds and other species of varying sizes and habits.



Torenia fournieri (Linderniaceae). Photo: Enderlei
Dec

Urban plants are usually intensively managed: watering, pruning and replanting produces floral resources that are more consistently available to pollinators, even in times of drought. In urban environments, the temperature is a little higher than outside the city and pesticides are of restricted use. Botanical species with different flowering periods are usually used in gardening in cities, which favors the ornamentation factor and, consequently, the supply of resources for pollinators is maintained throughout the seasons.

Thus, it becomes relevant, in urban areas, to have bee plants for

maintaining the diversity of bees. The goal of offering more floral resources for bees in urban areas can be achieved by encouraging the growing of ornamental bee plants, in line with a gardening, landscaping and sustainability sensibility.

Plants defined as ornamental by the attractive shapes and colors of their leaves or flowers are part of numerous groups of cultivated and wild plants, including representatives of various plant families, and are often cosmopolitan, originating from different countries. They are aesthetically pleasing, suitable for gardening and landscaping, and can be used, in urban areas, as a draw and food resource for wild bees. We think such ornamental plants make it possible for ecologists, farmers, plant enthusiasts and gardeners to enhance the urban environment as a biological corridor, using them to connect nearby forest fragments. Ornamental bee plants can also be used as bee pasture species in urban beekeeping.

Ornamental plants are not often thought of as bee plants because they do not always offer conspicuous pollen or nectar resources. Moreover, frequent attributes of ornamental plants, such as double petals and a lack of stamens, nectar guides, and strong scents, among others characteristics, drive off bees. However, many of them are suitable for bees that visit them.

Matt Shardlow

Bees and pollinators have always been a part of the city landscape, but outside cities modern agriculture has caused, and continues to cause, the destruction of bee habitat and the resulting declines in bumblebees, solitary bees, hoverflies, moths and butterflies. Cities have provided a relative sanctuary from the chemical and physical destruction of flower-rich meadows and indiscriminate insecticide use. Now there is increasing interest in urban-based conservation and wildlife gardening, so the presence of city bees amongst us has become more noticeable as well as more important.

Urban habitats can provide a fantastic range of varied pollinator resources. Existing wildflower sites, sometimes grasslands or railway banks and very often brownfield sites such as quarries or

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old mining spoil, can be protected and managed for their wildlife habitats. Roadside verges, playing fields, gardens, flat roofs, parks, even hanging baskets and green walls can be adapted to become flower rich bee havens.

The choice of pollen and nectar sources is important, tailoring planting to key local pollinator species and assemblages will increase the functionality of the habitats. While many pollinators are generalists,

France is leading the way, Paris has been pesticide free for over a decade and there are over 900 villes sans pesticides.

others visit only certain types of flower or are dependent on the flowers of just one plant. For instance ivy, speedwells, yellow loosestrife, white bryony, ragwort and scabious flowers all have specialist bees in Britain. Fostering flowers that support specialist bee species has the potential to ensure that cities not only maintain boosted populations of the widespread and generalist pollinators, but are also a refuge to a wide variety of bee species.

More pollen and nectar is the primary objective for bee habitat improvements, but nesting sites are also limiting factor for several species. Bumblebees will benefit from areas with long vegetation and banks where mice and voles can create the burrows that the bees so often occupy. Solitary bees have very varied nesting requirements. Solitary bee nest boxes are effective for a number of groups of solitary bees, and the retention of deadwood provides a more natural source of holes and cavities in which the bees can nest. We can also create banks and bare ground in which burrowing solitary bees can nest. For instance, Buglife's 'Get Glasgow Buzzing' project installed large patches of sand in municipal parks so that sand nesting solitary bees could construct nests.

One of my favourite stories of urban bee conservation relates to the Long-fringed mini-miner bee (*Andrena nivealis*). It is a rare bee found in very few localities in southern Britain where it specialises on brassica, cabbage family, flowers. In *Bees of Surrey* (2008) David Baldock relates that the bee was found in abundance on a small holding in Ewell, feeding on purple

sprouting broccoli. A woman living in an adjacent house had noticed the bees and spent hours observing them foraging and nesting in bare ground. When the small holding stopped growing brassicas the woman used her garden to grow a variety of flowering brassicas so that the little bees would have a chance of survival.

Engaging local people is key to delivering successful bee habitats. Passing on knowledge will enable them to manage flower rich bee friendly areas into the future, and they will learn for themselves that bee habitats have much wider benefits; delivering ecotherapy and the health and wellbeing benefits that come with nature engagement. Bee habitats, foraging and nesting, provides benefits to other pollinators and wildlife, giving the potential for people to access and to experience a wide range of invertebrate, plant, bird and mammal life close to where they live.

There is much still to learn about conserving bees in cities. The Buglife project 'Get Plymouth Buzzing' worked with Plymouth Council to develop wildflower meadows on municipal grassland. A subsequent study found that the wildflower meadows had more than twice as many bees as areas that were still standard municipal grassland. Buglife's current 'Urban Buzz' project will be turning eight cities across the UK into bee wonderlands. But the project will also attempt to get a better understanding of how we can provide the greatest benefit to our bee fauna, by, for instance, experimenting and researching innovative aerial homes for solitary bees.

Working with Local Authorities brings the potential to develop a strategic network of pollinator sites. Existing wildflower areas can be expanded and linked together and the targeting of action can improve the landscape connectivity for bees—promoting corridors of bee friendly open spaces, roofs, gardens and walls—as is being planned with the London B-Line.

Pesticides are a big issue for bees and other pollinators. Neonicotinoids attack the nervous system of wild bees, preventing them from foraging successfully, finding their nests and producing queens or the next generation, other insecticides such as pyrethroids are also toxic to bees, and herbicides

impact bee health as well, either directly or through the destruction of flowering plants. The non-agricultural use of pesticides is usually cosmetic and unnecessary.

France is leading the way, Paris has been pesticide free for over a decade and there are over 900 villes sans pesticides. In 2014 Minister of Ecology and Energy, Ségolène Royal, called on mayors to stop using pesticides "Pesticides are a health risk and today there are products that enable us to stop using pesticides and win back biodiversity, namely species such as butterflies that have at times completely vanished from certain communes." Seattle, Copenhagen and Tokyo are among other cities that have kicked the pesticide habit.

Cities alone will not save all the bees. If we want to have a healthy and sustainable agricultural system with adequate pollination services then we will have to restore pollinators across the countryside, defining wide corridors and sprinkling them with fields of flowers, as set out in the B-Lines scheme, is probably the most cost effective way of achieving this. There are also many bees that have fussy habitat requirements, conditions only found on heathlands, sand dunes or chalk grassland for instance. These bees will not be adequately catered for by the amount of habitat in urban areas, and therefore need targeted conservation management.

While cities may not be the panacea for bee conservation, they can make a hugely important contribution to conserving many species of bee, and urban bee conservation work also enables people to learn about and love bees: knowledge and passion that will provide the ground swell of support for the conservation of all bee species.

Damon Hall

The city as a haven for bees

Research on insect pollinators is changing how we view the biological value and ecological importance of cities.

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Photo: Damon Hall

We know that insect pollinators are in decline globally due to a combination of human-caused and natural factors (habitat loss, intensification of agriculture, pesticides, disease, etc.) [1]. This problem has been characterized as a “pollinator health crisis” where health refers to pollinator species diversity and abundance [2, 3].

In the midst of this problem, what has been surprising is that researchers are finding diverse species of bees in cities all over the world, such as Berlin, Germany [4]; Cardiff and London in the U.K. [5–7]; Melbourne, Australia [8]; Guanacaste Province, Costa Rica [9]; Vancouver, Canada [10]; Chicago, IL [11]; New York City, NY [12,13]; Phoenix, AZ [14]; and San Francisco, CA in the U.S. [15]. In several cases, bee species diversity and abundance in cities is greater than in surrounding rural areas [6, 7, 12, 14].

In an urbanizing world, the “pollinator health crisis” is one problem that an individual urban dweller can truly do something about.

A diversity of people in the world’s cities plant a diversity of flowering plants. Cultural norms, municipal codes, and aesthetic preferences shape the diversity of cultivated plants that provide forage for insect pollinators. Managed (and unmanaged) urban

public and private greenspaces offer places to nest. Although the restoration and conservation of natural landscapes are important for insect pollinators, urban landscapes do play a role in species conservation.



Photo: Damon Hall

Studies of insect pollinator health consistently show the primary driver of pollinator health is the presence and availability of flowers [7]. The message is simple: planting more flowers in cities can have a positive impact on improving bee diversity and abundance. Further, when urban bee populations are healthy, a spill-over effect can occur where bees re-inhabit rural lands [16]. This could be meaningful while governing organizations (e.g., in the U.S., the Environmental Protection Agency) investigate agricultural and horticultural chemicals. Until these fundamental questions about land-management practices are satisfactorily addressed in rural areas, cities could serve as a haven for insect pollinators.

Residential lawns, community greenspaces, and commercial properties can provide valuable habitat for urban bees. The small size and range of bees enables individuals who manage these lands to serve essential roles. For example, for smaller bee species that forage and nest within 500 meters, a few neighboring homeowners planting high-nectar flowers can contribute significantly to the quality of these bees' habitat. Individuals with relatively small spaces can design these spaces to support the functional needs of bees.

It is true that urban development and sprawl is responsible for habitat loss and the extinction of many species [17]. However, urban ecology research on bee species diversity and abundance reveals that humans can inhabit urban landscapes in a manner that does not always degrade habitat and can actually support the conservation of insect pollinators. Considering the amount of bee-pollinated foods in the human diet, this is of vital importance. In an urbanizing world riddled by seemingly insurmountable human and environmental problems, the “pollinator health crisis” is one problem that an individual urban dweller can truly *do something* about.

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References

1. Potts SG, Biesmeijer JC, Kremen C, Neumann P, Schweiger O, Junin WE. 2010. Global pollinator declines: trends, impacts and drivers. *Trends in Ecology & Evolution* 25(6):345–353.
2. White House, Office of the Press Secretary. 2014. Presidential memorandum-creating a Federal Strategy to promote the health of honey bees and other pollinators [Press release]. Available from: <https://www.whitehouse.gov/the-press-office/2014/06/20/presidential-memorandum-creating-federal-strategy-promote-health-honey-b>
3. Goulson D, Nicholls E, Botias C, Rotheray EL. 2015. Bee declines driven by combined stress from parasites, pesticides, and lack of flowers. *Science* 347(6229). doi: 10.1126/science.1255957.
4. Saure C, Burger F, Dathe HH. 1998. Die bienenarten von Brandenburg und Berlin (Hym. Apidae). *Entomologische Nachrichten und Berichte* 42(3):155–166.
5. Goulson D, Lye GC, Darvill B. 2008. Decline and conservation of bumble bees. *Annual Review of Entomology* 53:191–208.
6. Baldock KCR, Goddard MA, Hicks DM, Kunin WE, Mitschunas N, Osgathorpe LM, et al. 2015. Where is the UK’s pollinator biodiversity? The importance of urban areas for flower-visiting insects. *Proceedings of the Royal Society of London B: Biological Sciences* 282(1803). doi:10.1098/rspb.2014.2849.
7. Sirohi M, Jackson JI, Edwards M, Ollerton J. 2015. Diversity and abundance of solitary and primitively eusocial bee in an urban centre: a case study from Northampton, U.K. *Journal of Insect Conservation* 19:487–500.
8. Threlfall CG, Walker K, Williams NSG, Hahs AK, Mata I, Stork N, et al. 2015. The conservation value of urban green space habitats for Australian native bee communities. *Biological Conservation* 187:240–248.
9. Frankie GW, Vinson SB, Rizzardi MA, Griswold TL, Coville RE, Grayum

- MH, et al. 2013. Relationships of bees to host ornamental and weedy flowers in urban 226 northwestern Guanacaste Province, Costa Rica. *Journal of Kansas Entomological Society* 84(4): 325–351.
10. Tommasi D, Miro A, Higo HA, Winston ML. 2004. Bee diversity and abundance in an urban setting. *The Canadian Entomologist* 136(06):851–869.
11. Tonietto R, Fant J, Ascher J, Ellis K, Larkin D. 2011. A comparison of bee communities of Chicago green roofs, parks and prairies. *Landscape and Urban Planning* 103(1):102–108.
12. Matteson KC, Ascher JS, Langellotto GA. 2008. Bee richness and abundance in New York city urban gardens. *Annals of the Entomological Society of America* 101(1):140–150.

Scott MacIvor

Socioeconomic factors and mainstreaming urban bee conservation

Cities can help bees, but like many things—it depends. For instance, studies have shown which flowers to plant and where, how big gardens need to be and that proximity to larger ‘green space’ matters for bee conservation. Even novel—and really cool—artificial habitat, such as bee hotels, appear to encourage bees and simultaneously to send a message to citizens that there are ‘more than just honey bees’ that need our help. Since the majority of people live in cities, most of our experiences with wildlife occur in an urban context, so promoting these practices will help urban bees directly, and encourage care and concern for bees beyond our cities.

About the Writer:
Scott MacIvor

Scott is a postdoc at the University of Toronto, where he uses ecophylogenetics and biodiversity in urban design to support plant-pollinator networks.

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In terms of how urban habitats can be made to serve pollinator conservation, I’m interested in considering how city and neighbourhood age, development history, and diverse cultural perspectives might add new ways to propel local (and global) action. Cities and neighbourhoods can be further defined by a myriad

Linking cultural diversity and socioeconomic factors to bee conservation and pollination services could provide new ways to mainstream action on urban bee conservation.

of socioeconomic factors not commonly considered in analyses of urban bee diversity, including educational levels, lifestyle and social status, and other economic differences. Socioeconomic factors and their influence on patterns in urban bees have been entirely neglected in the literature, but could partially explain some of the emerging contrasting patterns seen in global urban bee diversity.



A spontaneous community garden replaces an abandoned gas station in a 1960s Toronto suburban neighbourhood. Legacy effects and neighbourhood cultural identity might dictate which plants are tended, how intensely, how many and where. These decisions will have ramifications for local pollinators searching for foraging and nesting resources. Photo: J. Scott MacIvor

Cities expand in multiple ways and even neighbourhoods in the same city might expand differently and in different directions. Human population density similarly expands in non-linear ways. Growing cities bring together people of diverse cultures and socioecological values. Acknowledging these assets could add synergy to the who, what, when, where, why and how of urban bee conservation. In Toronto, a 'city of neighbourhoods,' with one of the most culturally diverse populations in the world, my colleagues and I recently completed a checklist of the bees of the city and the surrounding region and recorded 364 species! Linking cultural diversity and socioeconomic factors to bee conservation and pollination services could provide new ways to mainstream action on urban bee conservation by conveying

their needs to the public through connection to everyday life factors not normally considered in promotion and management.

In my own study, from 2011 to 2013, I surveyed 200 community and home gardens, urban parks, and green roofs in Toronto using bee hotels and a large citizen science collective. Among many interesting findings, bee species richness increased with household income, and bee abundance increased with certain landscape factors, including the amount of open (e.g. non-forested) urban green space. Other studies have recorded an increase in plant diversity with household income, and coined this as the 'luxury effect.' Human preference for certain landscape conditions can remove resources for some species but increase them for others. Where finances permit, people can increase or decrease plant diversity through specific gardening techniques that would support bees, but these effects are generally unlikely to be conscious. The link between income and homeowner participation in activities to enhance native bees is not well researched, and participation is likely driven more by lifestyle choices, social status, and other forms of identity. More studies are needed to elucidate how standard (and freely available) socioeconomic and demographic data might impact patterns in pollinator diversity and the important services they provide.

Caragh Threlfall

Can cities save bees and assist in pollinator conservation more broadly? This is an interesting question, where it's likely the answer will be country- and city-specific. Bees in urban areas have been most extensively studied in the United States, Europe and the United Kingdom. In Australia, we know much less about how many species of bees occur in our cities and what types of habitats are important to their conservation. We know that bees need food, nesting sites and water, and that these three key things often occur in urban areas. However, exactly how important Australian cities are for bee conservation is yet to be determined.

About the Writer:
Caragh Threlfall

Dr Caragh Threlfall's research is focussed on understanding the impact of urban form on biodiversity, measuring the services biodiversity provides across urban landscapes, and assessing the effectiveness

Australia is one of the world's most urbanised countries,

The jury is still out on exactly what role cities

of urban greening for biodiversity conservation.

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and it is predicted that 90 percent of Australians will live in a city by 2050. This high density of Australia's population in cities poses an obvious threat to biodiversity,

including our native bees. But, it could also present enormous opportunities for targeted research, citizen science, evidence-based conservation policy and genuine science-practice partnerships. Cities could form an excellent platform to set out to achieve these things. However, there are currently some challenges to this goal.

will play in the conservation of Australia's unique bee fauna.

There are over 1,500 species of bees in Australia, with records of over 150 species in some of our capital cities. Despite this diversity, there is only one published paper examining habitat for bees in an Australian city. We do not yet know how many types of bees occur in our cities, what habitat they need or how to manage that habitat to serve pollinator conservation. My colleagues and I at The University of Melbourne and The University of Sydney have been collecting data to remedy this situation, and we have a good inkling that our cities harbour a large proportion of the country's bee biodiversity, but until more work is done, we just don't know for sure.

Our second major stumbling block is that most of our 1,500 species are small and solitary. Australian bees, albeit charismatic, are not as well recognised as bumblebees are in other countries, and are commonly mistaken for flies by the general public. However, many municipal authorities are working very hard on fantastic community engagement programs to remedy this apparent underappreciation for urban invertebrates, including The City of Melbourne's Urban BioBlitz—where hundreds of participants gathered in the city's parks and gardens to survey the urban pollinator community, providing data for their upcoming urban biodiversity policy—Or the Kuring-gai Council's native bee hive program, which is so popular they have residents on waiting lists eager to take home their very own native bee hive. However, these types of programs are by no means common practice, and many more programs like this are needed before the urban public can empathise with the plight of our urban bees.

Our last stumbling block to realising the potential of cities as avenues for pollinator conservation is the lack of urban biodiversity policy that currently mentions bees (or any invertebrate, for that matter). Current policy often focusses on the threatened or rare, and much of the habitat that our native bees would happily utilise—such as gardens, vacant lots and brownfields—are not traditionally viewed as valuable for biodiversity, and subsequently do not feature in urban biodiversity policy.

So how can cities save bees and assist in pollinator conservation? I think cities require new approaches to conservation, including genuine, long-term collaborative partnerships between scientists, practitioners and policy makers. These partnerships need to operate at multiple scales, from local municipalities through to national scales. And these partnerships need to act in concert so that research informs policy and policy needs inform research, with a focus on providing opportunities and stories to engage citizens along the way. We are well on our way to forging these paths in Australia; however, the jury is still out on exactly what role cities will play in the conservation of our unique bee fauna into the future.

14 thoughts on “Can cities save bees? How can urban habitats be made to serve pollinator conservation? How can that story be better told?”

May 6, 2016 at 06:10

ok,,,I read all . But u tell me is it possible to rear the bees of family Lassioglossum. If possible what alteration needs to be done in their nesting substrate under lab. conditions...

Dr. Showket
Ahmad

SKUAST-K, Srinagar.
Kashmir
India

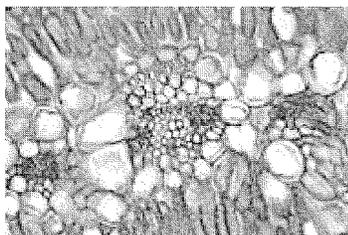
The Science of Composting

While our ancestors realized that compost was helpful for growing plants and improving soil health, they did not know how or why it worked. Our knowledge about the science of composting comes from research conducted during the past 50 years – relatively recent compared to the 2000 plus years that humans have been composting.

Backyard composting speeds up the natural process of decomposition, providing optimum conditions so that organic matter can break down more quickly. As you dig, turn, layer and water your compost pile, you may feel as if you are doing the composting, but the bulk of the work is actually done by numerous types of decomposer organisms.

Microorganisms In A Compost Pile

Microorganisms such as bacteria, fungi, and actinomycetes account for most of the decomposition that takes place in a pile. They are considered chemical decomposers, because they change the chemistry of organic wastes. The larger decomposers, or macroorganisms, in a compost pile include mites, centipedes, sow bugs, snails, millipedes, springtails, spiders, slugs, beetles, ants, flies, nematodes, flatworms, rotifers, and earthworms. They are considered to be physical decomposers because they grind, bite, suck, tear, and chew materials into smaller pieces.

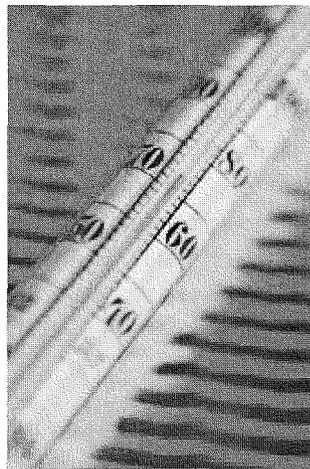


Of all these organisms, **aerobic bacteria** are the most important decomposers. They are very abundant; there may be millions in a gram of soil or decaying organic matter. You would need 25,000 of them laid end to end on a ruler to make an inch. They are the most nutritionally diverse of all organisms and can eat nearly anything. Bacteria utilize carbon as a source of energy (to keep on eating) and nitrogen to build protein in their bodies (so they can grow and reproduce). They obtain energy by oxidizing organic material, especially the carbon fraction. This oxidation process heats up the compost pile from ambient air temperature. If proper conditions are present, the pile will heat up fairly rapidly (within days) due to bacteria consuming readily decomposable materials.

While bacteria can eat a wide variety of organic compounds, they have difficulty escaping unfavorable environments due to their size and lack of complexity. Changes in oxygen, moisture, temperature, and acidity can make bacteria die or become inactive. Aerobic bacteria need oxygen levels greater than five percent. They are the preferred organisms, because they provide the most rapid and effective composting. They also excrete plant nutrients such as nitrogen, phosphorus, and magnesium. When oxygen levels fall below five percent, the aerobes die and decomposition slows by as much as

90 percent. Anaerobic microorganisms take over and, in the process, produce a lot of useless organic acids and amines (ammonia-like substances) which are smelly, contain unavailable nitrogen and, in some cases, are toxic to plants. In addition, anaerobes produce hydrogen sulfide (aroma-like rotten eggs), cadaverine, and putrescine (other sources of offensive odors).

There are different types of aerobic bacteria that work in composting piles. Their populations will vary according to the pile temperature. **Psychrophilic** bacteria work in the lowest temperature range. They are most active at 55° F and will work in the pile if the initial pile temperature is less than 70° F. They give off a small amount of heat in comparison to other types of bacteria. The heat they produce is enough however, to help build the pile temperature to the point where another set of bacteria, **mesophilic** bacteria, start to take over.



Mesophilic bacteria rapidly decompose organic matter, producing acids, carbon dioxide and heat. Their working temperature range is generally between 70° to 100° F. When the pile temperature rises above 100° F, the mesophilic bacteria begin to die off or move to the outer part of the heap. They are replaced by heat-loving **thermophilic** bacteria.

Thermophilic bacteria thrive at temperatures ranging from 113° to 160° F. Thermophilic bacteria continue the decomposition process, raising the pile temperature 130° to 160° F, where it usually stabilizes. Unless a pile is constantly fed new materials and turned at strategic times, the high range temperatures typically last no more than three to five days. Thermophilic bacteria use up too much of the degradable materials to sustain their population for any length of time. As the thermophilic bacteria decline and the temperature of the pile gradually cools off, the mesophilic bacteria again become dominant. The mesophilic bacteria consume remaining organic material with the help of other organisms.

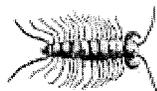
The drop in compost pile temperature is not a sign that composting is complete, but rather an indication that the compost pile is entering another phase of the composting process. While high temperatures (above 140° F) have the advantage of killing pathogenic organisms and weed seeds, it is unnecessary to achieve those temperatures unless there is a specific concern about killing disease organisms and seeds. (You can greatly reduce the possibility of pathogens in a pile by excluding pet waste, diseased plants, and manure from diseased animals.) Many decomposers are killed or become inactive when pile temperatures rise above 140° F. If the pile temperature exceeds 160° F, you may want to take action and cool the pile by turning it. A number of research projects have shown that soil amended with compost can help fight fungal infestations. If the compost pile

temperature goes above 160° F, the composting material may become sterile and lose its disease fighting properties.

While the various types of bacteria are at work, other microorganisms are also contributing to the degradation process. **Actinomycetes**, a higher-form bacteria similar to fungi and molds, are responsible for the pleasant earthy smell of compost. Grayish in appearance, actinomycetes work in the moderate heat zones of a compost pile. They decompose some of the more resistant materials in the pile such as lignin, cellulose, starches, and proteins. As they reduce materials, they liberate carbon, nitrogen, and ammonia, making nutrients available for higher plants. Actinomycetes occur in large clusters and become most evident during the later stages of decomposition.

Like bacteria and actinomycetes, **fungi** are also responsible for organic matter decay in a compost pile. Fungi are primitive plants that can be either single celled or many celled and filamentous. They lack a photosynthetic pigment. Their main contribution to a compost pile is to break down cellulose and lignin, after faster acting bacteria make inroads on them. They prefer cooler temperatures (70 to 75° F) and easily digested food sources. As a result, they also tend to take over during the final stage of composting.

Macroorganisms



As mentioned earlier, larger organisms are involved in physically transforming organic material into compost.

They are active during the later stages of composting – digging, chewing, sucking, digesting and mixing compostable materials. In addition to mixing materials, they break it into smaller pieces, and transform it into more digestible forms for microorganisms. Their excrement is also digested by bacteria, causing more nutrients to be released.

Micro- and macroorganisms are part of a complex food chain. This food chain consists of organisms classified as either first-, second-, or third-level consumers. The categories are based on what they eat and who eats them. First level consumers become the food for second level consumers, which in turn, are eaten by third level consumers. Soil ecologist Dr. Daniel L. Dindal gives an example of how the food chain works in *Ecology of Compost*:

“Mites and springtails eat fungi. Tiny feather-winged beetles feed on fungal spores. Nematodes ingest bacteria. Protozoa and rotifers present in water films feed on bacteria and plant particles. Predaceous mites and pseudoscorpions prey upon nematodes, fly larvae, other mites and collembolans. Free-living flatworms ingest gastropods, earthworms, nematodes and rotifers. Third-level consumers such as centipedes, rove beetles, ground beetles, and ants prey on second-level consumers.”

The following is an overview of some of the larger macroorganisms you are likely to find in a compost pile.



Ants - Ants feed on a variety of materials including fungi, seeds, sweets and other insects. They help the composting process by bringing fungi and other organisms into their nests. Ants can make compost richer in phosphorus and potassium by moving minerals around as they work.

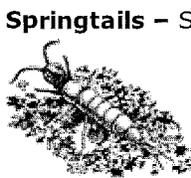


Millipedes - Millipedes have wormlike segmented bodies, with each segment having two pairs of walking legs (except the front few segments). Millipedes help break down plant material by eating soft decaying vegetation. They will roll up in a ball when in danger.

Centipedes - Centipedes are flat, segmented worms with one pair of legs in each segment. They are third-level consumers that feed on soil invertebrates, especially insects and spiders.



Sow bugs - Sow bugs have a flat and oval body with distinct segments and ten pairs of legs. They are first-level consumers that feed on rotting woody materials and other decaying vegetation. Pill bugs look similar to sow bugs, but roll up in a ball when disturbed.



Springtails - Springtails are small insects distinguished by their ability to jump when disturbed. They rarely exceed one-quarter inch in length and vary in color from white to blue to black. Springtails are principally fungi feeders, although they also eat molds and chew on decomposing plants.

Flies - Flies are two-wing insects that feed on almost any kind of



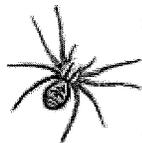
organic material. They also act as airborne carriers of bacteria, depositing it wherever they land. Although flies are not often a problem associated with compost piles, you can control their numbers by keeping a layer of dry leaves or grass clippings on top of the pile. Also, bury food scraps at least eight to twelve inches deep into the pile. Thermophilic temperatures kill fly larvae. Mites help to keep fly larvae reduced in numbers.



Beetles - Beetles are insects with two pairs of wings. Types commonly found in compost piles include the rove beetle, ground beetle, and feather-winged beetle. The feather-winged beetle feeds on fungal spores. Immature grubs feed on decaying vegetables. Adult rove and ground beetles prey on snails, slugs, and other small animals.



Snails and slugs - Snails and slugs are mollusks that travel in a creeping movement. Snails have a spiral shell with a distinct head and retractable foot. Slugs do not have a shell and are somewhat bullet shaped with antennae on their front section. They feed primarily on living plant material, but they will also attack plant debris. Look for them in finished compost before using it, as they could do damage to your garden if they move in.



Spiders - Spiders are eight-legged creatures and third-level consumers that feed on insects and small invertebrates. They can be very helpful for controlling garden pests.

Earthworms - Earthworms are the most important of the large physical decomposers in a compost pile. Earthworms ingest organic matter and digest it with the help of tiny stones in their gizzards. Their intestinal juices are rich in hormones, enzymes, and other fermenting substances that continue the breakdown process.

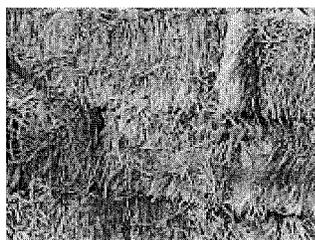


The worms leave dark, fertile castings behind. A worm can produce its weight in castings each day. These castings are rich in plant nutrients such as nitrogen, calcium, magnesium, and phosphorus that might otherwise be unavailable to plants. Earthworms thrive on compost and contribute greatly to its quality. The presence of earthworms in either compost or soil is evidence of good microbial activity.

Key Factors Affecting The Composting Process

There are certain key environmental factors which affect the speed of composting. The organisms that make compost need food (carbon and nitrogen), air, and water. When provided with a favorable balance, they will produce compost quickly. Other organism factors affecting the speed of composting include surface area/particle size, volume, and temperature.

Food Factor



Organic material provides food for organisms in the form of carbon and nitrogen. As described earlier, bacteria use carbon for energy and protein to grow and reproduce. Carbon and nitrogen levels vary with each organic material. Carbon-rich materials tend to be dry and brown such as leaves, straw, and wood chips. Nitrogen materials tend to be wet and green such as fresh grass clippings and food waste. A tip for estimating an organic material's carbon/nitrogen content is to remember that fresh, juicy materials are usually higher in nitrogen and will decompose more quickly than older, drier, and woodier tissues that are high in carbon.

A C:N ratio ranging between 25:1 and 30:1 is the optimum combination for rapid decomposition. If ratio is more than 30:1 carbon, heat production drops and decomposition slows. You may have noticed that a pile of leaves or wood chips will sit for a year or more without much apparent decay. When there is too much nitrogen, your pile will likely release the excess as smelly ammonia gas. Too much nitrogen can also cause a rise in the pH level which is toxic to some microorganisms.

The C:N ratio does not need to be exact. Values in Table 1 are calculated on a dry-weight basis. It is difficult to determine an exact

C:N ratio without knowing the moisture content of the materials being used. Blending materials to achieve a satisfactory C:N ratio is part of the art of composting. A simple rule of thumb is to develop a volume-based recipe using from one-fourth to one-half high-nitrogen materials.

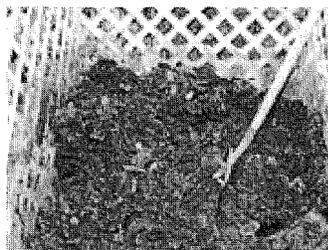
Table 1 provides estimates of the C:N ratio for selected composting materials.

TABLE 1. Carbon:Nitrogen Ratios

MATERIAL	C:N RATIO
Corn stalks	50-100:1
Fruit waste	35:1
Grass clippings	12-25:1
Hay, green	25:1
Leaves, ash, black elder and elm	21-28:1
Leaves, pine	60-100:1
Leaves, other	30-80:1
Manure, horse and cow	20-25:1
Paper	170-200:1
Sawdust	200-500:1
Seaweed	19:1
Straw	40-100:2
Vegetable waste	12-25:1
Weeds	25:1
Wood chips	500-700:1

Air Factor

Proper aeration is a key environmental factor. Many microorganisms, including aerobic bacteria, need oxygen. They need oxygen to produce energy, grow quickly, and consume more materials. Aeration involves the replacement of oxygen deficient air in a compost pile with fresh air containing oxygen. Natural aeration occurs when air warmed by the composting process rises through the pile, bringing in fresh air from the surroundings. Aeration can also be affected by wind, moisture content, and porosity (spaces between particles in the compost pile). Composting reduces the pile's porosity and decreases air circulation. Porosity can be negatively affected if large quantities of finely sized materials such as pine needles, grass clippings, or sawdust are used. In addition, air circulation can be impeded if materials become water saturated.



Air movement in the pile can be improved with a few simple techniques. The easiest way to aerate a pile is to regularly turn it with a pitchfork or shovel. Turning will fluff up the pile and increase its porosity. Another option is to add coarse materials such as leaves, straw, or corn stalks. Other options include using a compost aeration tool (available from garden supply companies) or a ventilator stack. Stacks can be made out of

perforated plastic pipes, chicken wire wrapped in a circle, or bundles of twigs. Ventilator stacks may be useful for large piles and should stick out the top or sides.

Moisture Factor

Decomposer organisms need water to live. Microbial activity occurs most rapidly in thin water films on the surface of organic materials. Microorganisms can only utilize organic molecules that are dissolved in water. The optimum moisture content for a compost pile should range from 40 to 60 percent. If there is less than 40 percent moisture, bacteria slow down and may become dormant. If there is more than 60 percent, water will force air out of pile pore spaces, suffocating the aerobic bacteria. Anaerobic bacteria will take over, resulting in unpleasant odors.



The ideal percentage of moisture will depend on the organic material's structure. Straw and corn stalks will need more moisture than leaves, while food waste or grass clippings are not likely to need additional moisture. Since it is difficult to measure moisture, a general rule of thumb is to wet and mix materials so they are about as moist as a wrung-out sponge. Material should feel damp to the touch, with just a drop or two of liquid expelled when squeezed in your hand.

If a compost pile is too dry, it should be watered as the pile is being turned or with a trickling hose. Certain materials such as dead leaves, hay, straw, and sawdust should be gradually moistened until they glisten. These types of materials have a tendency to shed water or adsorb it only on the surface. If a pile is saturated with water, turn it so that materials are restacked. It may also help to add dry, carbon rich material.

Temperature Factor

Temperature is another important factor in the composting process and is related to proper air and moisture levels. As the microorganisms work to decompose the compost, they give off heat which in turn increases pile temperatures. Temperatures between 90° and 140°F indicate rapid decomposition. Lower temperatures signal a slowing in the composting process. High temperatures greater than 140° F reduce the activity of most organisms.

Outside air temperatures can impact the decomposition process. Warmer outside temperatures in late spring, summer, and early fall stimulate bacteria and speed up decomposition. Low winter temperatures will slow or temporarily stop the composting process. As air temperatures warm up in the spring, microbial activity will resume. During winter months, compost piles can be covered with a tarp to help retain heat longer, but it is not necessary.

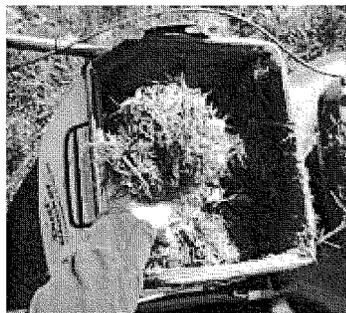
Novice composters and people interested in making fast compost may

want to track temperatures. The most accurate readings will come from a compost thermometer or temperature probe. Compost thermometers are available from many garden supply companies.

Another method for monitoring temperature is to stick your fist into the pile. You can also place a metal pipe or iron bar in the middle of the pile, periodically pulling it out and feeling it. If the bar or the interior of the pile feels uncomfortably warm or hot during the first few weeks of composting, you'll know everything is fine. If the temperature inside the pile is the same as the outside, that is an indication that the composting process is slow. You can increase activity by adding nitrogen rich material and turning the pile.

Particle Size Factor

Particle size affects the rate of organic matter breakdown. The more "surface area" available, the easier it is for microorganisms to work, because activity occurs at the interface of particle surfaces and air. Microorganisms are able to digest more, generate more heat, and multiply faster with smaller pieces of material. Although it is not required, reducing materials into smaller pieces will definitely speed decomposition. Organic materials can be chopped, shredded, split, bruised, or punctured to increase their surface area. Don't "powder" materials, because they will compact and impede air movement in the pile.



For many yard trimmings, cutting materials with a knife, pruning shear, or machete is adequate. An easy way to shred leaves is to mow them before raking. You can collect them at the same time if your mower has a bag attachment.

Another option is to use a lawn trimmer to shred leaves in a garbage can. Several different models of shredders and chippers are available for sale or rental to use in shredding woody materials and leaves. It is a good idea to wear safety goggles when doing any type of shredding or chopping activity. Hands should be kept out of the machine while it is in operation.

Kitchen scraps can be chopped up with a knife. Some ambitious people use meat grinders and blenders to make "garbage soup" from their food scraps and water. They pour the mixture into their heaps.

Volume Factor

Volume is a factor in retaining compost pile heat. In order to become self insulating and retain heat, piles made in the Midwest should ideally be about one cubic yard. The one cubic yard size retains heat and moisture, but is not too large that the material will become unwieldy for turning. Homes located on lakes or in windy areas may want to consider slightly larger piles measuring 4 feet x 4 feet x 4 feet. Smaller compost piles will still decompose material, but they

may not heat up as well, and decomposition is likely to take longer.

Search



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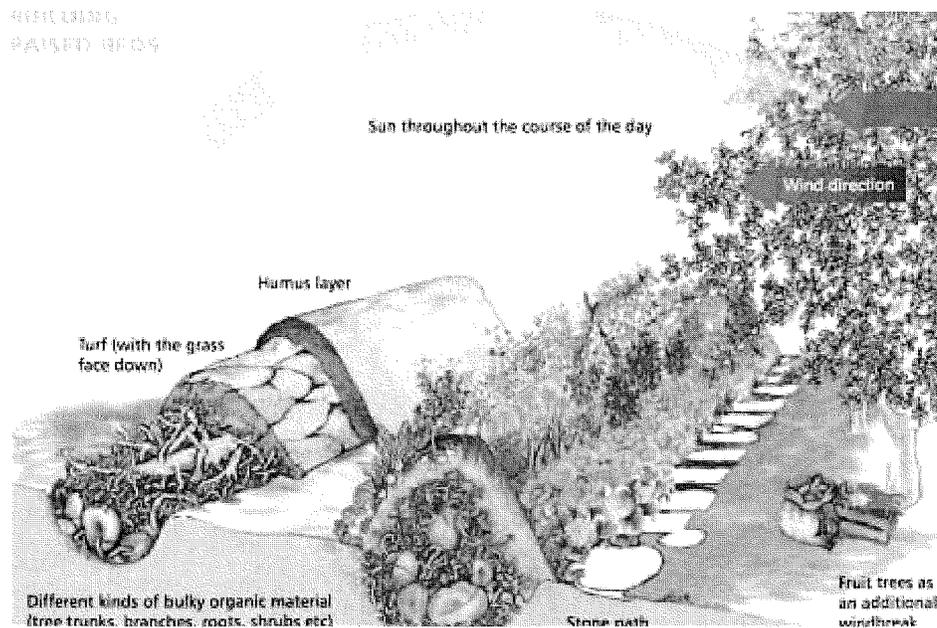
practical solutions beyond sustainability

The Many Benefits of Hugelkultur

Inspiration Green and Permaculture magazine

Thursday, 17th October 2013

Hugelkultur are no-dig raised beds with a difference. They hold moisture, build fertility, maximise surface volume and are great spaces for growing fruit, vegetables and herbs.



Hugelkultur, pronounced Hoo-gul-culture, means hill culture or hill mound.

Instead of putting branches, leaves and grass clippings in bags by the curbside for the bin men... build a hugel bed. Simply mound logs, branches, leaves, grass clippings, straw, cardboard, petroleum-free newspaper, manure, compost or whatever other biomass you have available, top with soil and plant your veggies.

The advantages of a hugel bed are many, including:

The gradual decay of wood is a consistent source of long-term

nutrients for the plants. A large bed might give out a constant supply of nutrients for 20 years (or even longer if you use only hardwoods). The composting wood also generates heat which should extend the growing season.

Soil aeration increases as those branches and logs break down... meaning the bed will be no till, long term.

The logs and branches act like a sponge. Rainwater is stored and then released during drier times. Actually you may never need to water your hugel bed again after the first year (except during long term droughts).

Sequester carbon into the soil.

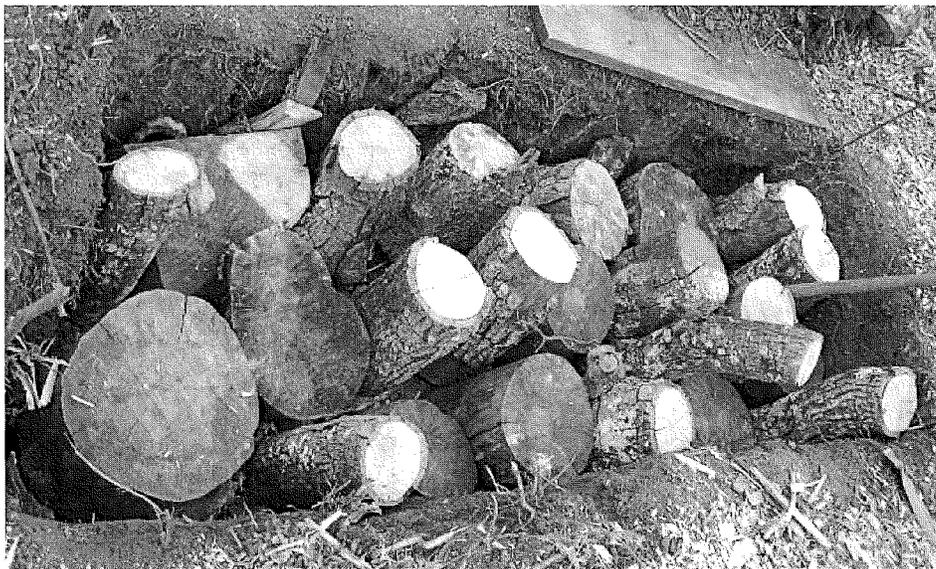
On a sod lawn **Sepp Holzer**

(<http://permanentpublications.co.uk/meet-the-authors-sepp-holzer/>) (hugelkultur expert) recommends cutting out the sod, digging a one foot deep trench and filling the trench with logs and branches. Then cover the logs with the upside down turf. On top of the turf add grass clippings, seaweed, compost, aged manure, straw, green leaves, mulch, etc...



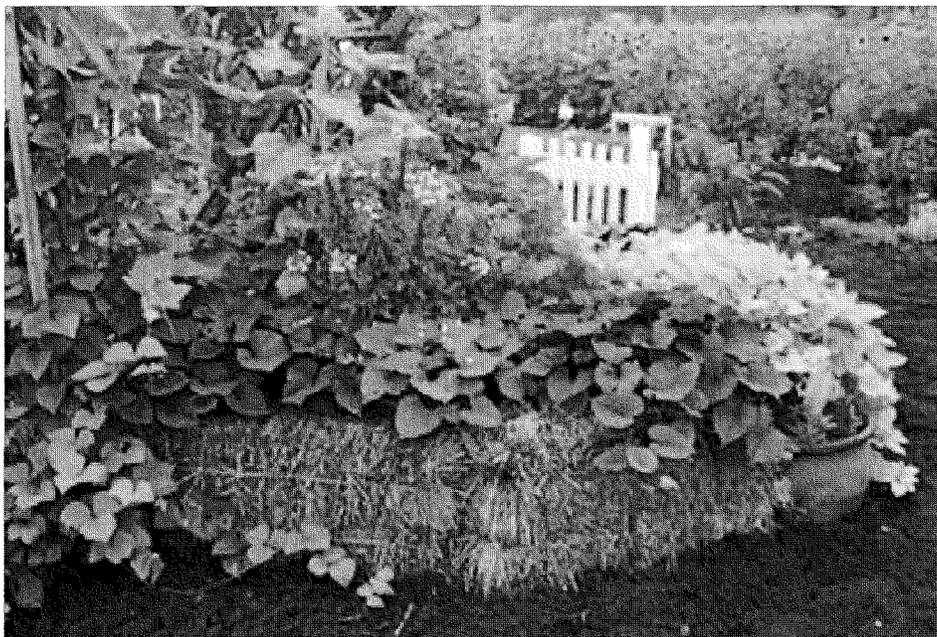


Sepp Holzer recommends steep hugel beds to avoid compaction from increased pressure over time. Steep beds mean more surface area in your garden for plants and the height makes easy harvesting. The greater the mass, the greater the water-retention benefits.



Hugel bed dug in clay with logs put in vertically, next branches and lots of wood chips. Top 6" will be wood chips and dirt. This bed will

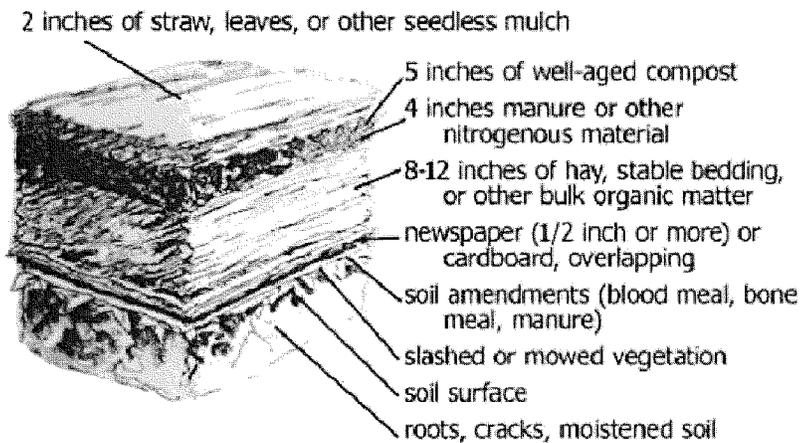
store water and give nutrients for many years to come.



Straw bale gardens require less soil, less water and hold heat. As the straw breaks down nutrients feed the plants. Combining a straw surround with a hugel interior, topped by lasagne layering is an excellent idea for an area with poor quality soil.



Hugel bed in Ontario, Canada (June 28) by Tim Burrows. Tim surrounded his very tall hugel bed in pallets!



Sheet mulching (lasagne gardening) is like composting in place. Above: just a suggestion as to sheet mulching layers. Nitrogen-rich material such as fresh grass clippings or green leaves put right on the hugelkultur wood would help jump start the composting process. Could also include seaweed, straw, dead leaves, leaf mould, etc...

The first year of break down means the wood (and fungi) steal a lot of the nitrogen out of the surrounding environment, so adding nitrogen during the first year or planting crops that add nitrogen to the soil (like legumes) or planting species with minimal nitrogen requirements is necessary, unless there is plenty of organic material on top of the wood. After the wood absorbs nitrogen to its fill, the wood will start to break down and start to give nitrogen back in the process. In the end you will be left with a beautiful bed of nutrient rich soil.

Tree types that work well in hugelkultur:

Hardwoods break down slowly and therefore your hugel bed will last longer, hold water for more years and add nutrients for more years. But softwoods are acceptable as well, a softwood bed will just disintegrate quicker. Mixing woods with softwoods and branches on top, to give off nutrients first, and hardwoods on bottom, sounds like a plan if you have access to multiple types of wood. Yet the newly decomposing softwoods at top will eat up a lot of nitrogen at first, so compensate for that.

Woods that work best:

Alders, apple, aspen, birch, cottonwood, maple, oak, poplar, willow (make sure it is dead or it will sprout).

Trees types that work okay:

Black cherry (use only rotted), camphor wood (well aged), cedar/juniper/yew (anti-microbial/anti-fungal, so use only at

very bottom or unless already well aged. Cedar should be broken down before new plant roots reach it), eucalyptus (slightly anti-microbial), osage orange (exceptionally resistant to decay), Pacific yew (exceptionally resistant to decay), pine/fir/spruce (tannins and sap), red mulberry (exceptionally resistant to decay).

Tree types to avoid:

Black locust (will not decompose), black walnut (juglone toxin), old growth redwood (heartwood will not decompose and redwood compost can prevent seed germination).

*This article was cross-posted
from www.inspirationgreen.com/hugelkultur.html
(<http://www.inspirationgreen.com/hugelkultur.html>)*

Further resources

Want to learn more about hugelkultur beds? We highly recommend ***Sepp Holzer's Permaculture*** (<http://www.green-shopping.co.uk/books/pp/sepp-holzer-1/sepp-holzer-s-permaculture.html>), a ground breaking book that will teach you all you need to know! (Also available as an **eBook**) (<http://www.green-shopping.co.uk/books/pp/sepp-holzer-1/sepp-holzer-s-permaculture-ebook-edition.html>) (For US readers, you can buy from **Chelsea Green HERE** (http://www.chelseagreen.com/bookstore/item/sepp_holzers_permaculture:paperback))

Desert or Paradise (<http://www.green-shopping.co.uk/books/pp/sepp-holzer-1/desert-or-paradise.html>) by Sepp Holzer (For US readers, you can buy from **Chelsea Green HERE** (http://www.chelseagreen.com/bookstore/item/sepp_holzers_permaculture:paperback))

How to make hugelkultur raised beds in ***Permaculture 68*** (<http://www.green-shopping.co.uk/magazines/permaculture-magazine-68-pdf.html>) as a **pdf** (<http://www.green-shopping.co.uk/magazines/permaculture-magazine-68-pdf.html>)

Small-scale hugelkultur in raised beds
(<http://www.permaculture.co.uk/readers-solutions/small-scale-hugelkultur-raised-beds>)

How to make vertical raised beds for urban green spaces
(<http://www.permaculture.co.uk/readers-solutions/how-make-vertical-raised-beds-urban-green-spaces>)

Video: **How to make a hugelkultur bed**



May 3, 2016

ID #: 16-00364

STEPHANIE M JONES
908 Second St
Stevens Point, WI 54481

NOTICE FOR CORRECTING VIOLATION(S):
***MULTIPLE EXTERIOR STRUCTURE VIOLATIONS AT 908 SECOND ST.**

Dear STEPHANIE M JONES:

An inspection of the property located at **908 SECOND St.** was made on Apr 29, 2016. As a result of this inspection, the condition described below was observed:

Condition: 1) Several items with the building are not complying with City Ordinance 21.07 GENERAL REQUIREMENTS RELATING TO SAFE AND SANITARY MAINTENANCE OF PREMISES.

21.07(1) General. The exterior of every structure of accessory structure including fences shall be structurally sound and maintained in good repair. The same shall be maintained free of broken glass, loose shingles or siding, crumbling stone or brick, excessive peeling paint or other condition reflective of deterioration or inadequate maintenance.

21.07(2) Weather proof. Every foundation, roof, exterior wall, door, skylight and window shall be reasonably weathertight, watertight, and damp free, and shall be kept in sound condition and good repair. All exterior wood surfaces, other than decay-resistant woods, shall be protected from the elements and decay by paint or other covering or treatments.

- a) There is peeling paint on window frames, soffit and fascia on the house.**
- b) The porch floor is buckling, some floor boards are not structurally sound which must be repaired, replaced and re-painted to protect from the weather.**
- c) The porch railing has peeling paint and must be re-painted.**
- d) The batten strips around the porch screen are in disrepair and have peeling paint which must be repaired and re-painted.**
- e) There is a hole on one screen and must be replaced.**
- f) There are holes on the siding on the front gable and under window sills on the second floor which must be corrected to avoid water penetration into the building structure.**
- g) The boards over a previous opening to the basement does not have protective coating and must be re-painted.**



2) In addition, Ordinance 21.07(9) Fencing. All fences provided by the owner or agent on the premise and/or all fences erected or caused to be erected by an occupant shall be constructed of manufactured metal fencing material, wood, masonry, or other inert material. Such fences shall be maintained in good condition. All wood materials other than decay-resistant woods shall be protected against decay by use of paint or other preservative. The permissible height and other characteristics of all fences shall conform to the appropriate statutes, ordinances, and regulations of the City of Stevens Point and the State of Wisconsin: It is evident that some of the fencing materials in your yard are non-conventional and are not protected against decay and therefore are in violation of this Ordinance. In addition, Ordinance 21.07(1) All structures in the property must be structurally sound which would not be the case if wood that has not been treated to resist decay is used outdoors.

3) There is accumulation of items in your backyard that are incompatible with the surrounding residential and commercial neighborhood and are in violation of City Ordinance 21.03 RESPONSIBILITIES OF OWNERS AND OCCUPANTS:

a) 21.03(4) Store and dispose of rubbish in a clean, sanitary and safe manner: The plastic containers (buckets, bowls, trash cans that are not the kind provided by the City to dispose garbage or recyclables), black garbage bags, tarps, construction materials (boards, bricks) which must be removed from the yard.

b) 21.03(4)(b)5. Disposal of yard waste & 21.03(10): Vegetative material that may provide harborage for rodents or insects: The piles of yard waste (one at the south part of the yard, one at the east on Second st. and one to the left of the rear entrance) must be removed.

c) Ordinance 21.03(4)(b)5 and 21.03(10) also apply to the large tree that fell on the yard which is in state of decay and prone to attract carpenter ants. It must either be protected with wood preservative or be removed from the yard. Also see ordinance 21.07(9) Fencing.

d) 21.03(9) No owner shall accumulate rubbish, boxes, scrap metal, appliances or any other material or furniture designed for interior use on the premises which is exposed to the weather for longer than 24 hours in such a manner that might be unsightly to, incompatible with, or repugnant to the residential or commercial neighborhood: The furniture on the front porch, the wood chairs placed near the rear entrance and the interior wood doors placed near the rear entrance must be removed.

e) 21.03(14) No owner, operator, or occupant of a building, building unit, or premise shall suffer, permit or allow any condition which may be dangerous to young children because of their inability to appreciate peril and may reasonably be expected to attract them to premises: The glass mirrors and any sharp metal items must be removed.



4) City Ordinance under Chapter 25 regulates sign placement in the City of Stevens Point. The banner you have installed on the gable end of the house is not permitted and must be removed.

The above list of violations must be corrected prior to July 1st, 2016

The condition described above is in violation of of the Muni Code, Wis Admin Code, & Wis Statute, which states, the provisions of these codes shall apply to all existing premises and constitute the minimum requirements and standards for property conditions.

This is your official notice that you will need to bring the property into compliance by properly abating such violations within the timeline indicated above. A re-inspection will occur to see if the first or all violation(s) are abated prior to Jul 01, 2016.

Failure to abate the violation(s) described above will result in the issuance of a \$100.00 service charge, as well as, enforcing the penalty provisions described in the Stevens Point Municipal Code, including, but not limited to the issuance of a citation and/or the abatement by the City with the costs of abatement being assessed against the real estate as a special charge.

Your cooperation in this matter is greatly appreciated. If we can be of further assistance to you, or can answer any questions regarding this matter, please contact this office at (715) 346-1567.

Sincerely,

A handwritten signature in black ink that reads "Ximena Christianson".

Ximena Christianson
Building Inspector 715-346-1559

RECIPIENTS: STEPHANIE M JONES (Owner)

Name and Address		Parcel #	Alt Parcel #	Land Use
Stephanie M Jones 908 Second St Stevens Point, WI 54481		240829303011	240829303011	Residential
Property Address			Neighborhood	
908 Second St			26 North West (Residential)	
Subdivision			Zoning	
Display Note	Certified Survey Map		B1-NBHD BUSINESS	

OWNERSHIP HISTORY

Owner	Sale Date	Amount	Conveyance	Volume	Page	Sale Type
Stephanie M Jones Steven Andrews & Stephanie Jones McCarthy P Rinka Mccarthy P Rinka	11/4/2010	\$49,100	Quit Claim Deed	751561	653	Land & Build.
	9/28/2005	\$61,000	Warranty Deed	679463		Land & Build.
	8/15/2005	\$1	Term. Dec. Prop. Int.	677208		Land & Build.
	5/11/1993	\$33,000	Quit Claim Deed	599		Land & Build.

SITE DATA

PERMITS

Actual Frontage	82.0	Date	Number	Amount	Purpose	Note
Effective Frontage	82.0	9/13/2005	33534	\$1,200	020 Electrical	100 amp
Effective Depth	103.0					
Square Footage	8,446.0					
Acreage	0.194					

2015 ASSESSED VALUE

Class	Land	Improvements	Total
(1) - A-Residential	\$10,300	\$49,800	\$60,100
Total	\$10,300	\$49,800	\$60,100

LEGAL DESCRIPTION

LOT 2 CSM#2251-8-109 BNG PRT LOTS 1 & 2 BLK 2 BROWN & WALTON ADD & BNG PRT SW SW S29 T24 R8 679463 751561

DWELLING DATA (1 of 1)

Style	07 Old Style		Basement	Full	Exposed	No
Ext. Wall	Slate/Asphalt		Heating	Basic		
Story Height	1.5	Age	107	Fuel Type	Gas	
Year Built	1909	Eff. Year	1909	System Type	Warm Air	
Class	(1) - A-Residential		Total Rooms	8	Bedrooms	3
Int. Cond. Relative to Ext.	Interior Better than Exterior		Family Rooms	1		
Physical Condition	Poor		Full Baths	1	Half Baths	0
Kitchen Rating	Poor		Bath Rating	Average		

FEATURES

ATTACHMENTS

Description	Units	Description	Area
Additional Plumbing Fixtures	1	Open Frame Porch	280

Name and Address		Parcel #	Alt Parcel #	Land Use
Stephanie M Jones 908 Second St Stevens Point, WI 54481		240829303011	240829303011	Residential
		Property Address		Neighborhood
		908 Second St		26 North West (Residential)
		Subdivision		Zoning
Display Note	Certified Survey Map		B1-NBHD BUSINESS	

LIVING AREA

Description	Gross Area	Calculated Area
Basement	810.0	
Finished Basement Living Area	0.0	0.0
First Story	1,058.0	1,058.0
Second Story	0.0	0.0
Additional Story	0.0	0.0
Attic / Finished	0.0	0.0
Half Story / Finished	810.0	607.5
Attic / Unfinished	0.0	
Half Story / Unfinished	0.0	
Room / Unfinished	0.0	
Total Living Area		1,665.5

DETACHED IMPROVEMENTS

Description	Year Built	Square Feet	Grade	Condition
Garage - Detached Frame/ Block	1910	280.0	D	Poor

PROPERTY IMAGE



PROPERTY SKETCH

