

The Role of Acoustic Reviews in Influencing Restaurant Acoustics

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Abstract

Noisy cafes and restaurants are gaining considerable notoriety throughout New Zealand, and, it seems, the world. Despite some examples of great venues using sound absorptive treatment to reduce reverberation times, and suppressing the cafe effect, architects and interior designers continue to ignore basic acoustic advice and build noisy, quasi-industrial shells. Thankfully, public awareness of the ability to effect change is now growing, with increasing press coverage of the issue.

This paper looks at a subjective rating system for the end user which has now been in operation in New Zealand for more than 10 years. The Café & Restaurant Acoustic Index (CRAI) allows members of the public to complete a simple rating for any dining venue that they visit. On-line rating and smartphone apps are available, and the Acoustical Society of New Zealand (ASNZ) publishes ratings in its quarterly journal.

A number of examples of treated and untreated venues are given, along with snapshots of some of the recent press coverage on the issue. We also explore whether the system is producing any benefits for the community, and what else can be done acoustically to improve our dining experience.

1. Introduction

The Café & Restaurant Acoustic Index (CRAI) rating system was borne out of comments during a birthday dinner at a very noisy Italian restaurant in Christchurch. The comments were made in the full knowledge that those listening were involved in the acoustics industry. Leaning forward to be heard, the woman asked why nothing was being done about noisy restaurants such as the one where dinner was being held.

Unfortunately, many restaurateurs still believe that they want a "lively" environment, to give an impression of a successful business, and they are often blissfully unaware that their noisy dining area may be losing customers and affecting their profitability.

In addition, New Zealanders do not often complain other than to their friends, so negative feedback is rarely given to the business owners.

In an attempt to promote change, the Acoustical Society of New Zealand (ASNZ) developed the Café & Restaurant Acoustic Index (CRAI) rating system, to encourage the public to rate the acoustics of their dining experiences.

2. The CRAI Rating System

The design of the questions which make up the CRAI rating system are intended to examine whether the acoustic impressions of a restaurant are based on more than just how noisy it is. The hypothesis is that the food, the service, the décor, the dining partners, and even the cost, can all influence the reaction to noise within the venue return.

The CRAI system explores this hypothesis by using four simple questions to arrive at a star rating similar to the well known 5-star food rating. The four questions are:

1. How noisy do you like cafés/restaurants?
2. Did noise adversely affect your dining experience?
3. Was conversation difficult due to noise?

4. Would noise stop you dining here again?

For all four questions, a response is required on a 5-point Likert Scale, with 1 being "a lot" and representing the noisy end of the scale. 5 is "not at all", and represents the quiet or non-intrusive end of the scale.

There are also two additional questions, designed to help distinguish between separate ratings for the same venue. These are:

5. How busy was this venue at the time of your visit?
6. At what level was music playing while you were eating?

Question 1 is a weighting question. Respondents who like noisy environments will unknowingly rate a restaurant lower than those who prefer little or no noise. Interestingly, it is rare to receive a rating from somebody who likes no noise in a venue. By far **** the most common response to question 1 is 3 or 4. This lends some credence to the restaurateur's claim that they need a lively environment, although few respondents suggest they want a lot of noise. ***

Questions 2 and 3 are similar, aiming to explore the idea that noise in the venue may have detracted from one's enjoyment of the meal. These two questions often elicit different answers. It seems that it is possible for conversation to be difficult due to noise (Q3) yet not have an adverse effect on dining (Q2). One possible reason for this is that other factors such as the food, service and/or décor were outstanding.

Question 4 often results in interesting responses. Some respondents note that they like restaurants to be reasonably quiet (Q1), noise had an adverse effect on their dining (Q2), conversation was quite difficult (Q3), yet noise would not stop them from returning (Q4).

This, of course, leads back to the starting hypothesis. A simple measure of noise level does not appear to be a reliable determinant of the response to the acoustic conditions in a restaurant. To demonstrate this, to date 329 respondents have answered 1 or 2 to Q3, indicating that conversation was difficult due to noise. Of these, 17% answered 4 or 5 to Q4, saying that noise was unlikely to stop them dining in the same place again.

The CRAI rating system does not aim to promote 1-star as "bad" and 5-star as "good". Rather, the aim is to provide a system to allow prospective diners to choose a venue that suits their requirements. In other words, it is important to consider how the acoustic rating fits with the overall intention of the venue. A 5-star acoustic venue may be ideal for a quiet romantic candlelit dinner for two, but a poor choice for a boisterous night out for the boys. Large steaks and burgers are arguably more compatible with a 2 or 3 star acoustic environment.

3. CRAI in practice

The CRAI rating system has now been operating in New Zealand for over 10 years. In that time, 801 responses have been received, rating 427 individual venues throughout New Zealand.

Keeping the results up to date is difficult at times, particularly after a significant natural disaster such as the 2011 Christchurch earthquakes — an event which resulted in almost every central city restaurant being demolished and/or relocated. At the time of writing this paper, there were 384 operating venues listed on the rating results.

For several years, undertaking a CRAI rating on a restaurant involved filling out an A5 piece of paper (see Figure 1) and posting it to the ASNZ. Over the years, this has progressed to a business-card sized form, an online rating form (at www.acoustics.org.nz), and recently a beta version of a smart phone app.

Café & Restaurant Acoustic Index Rating Sheet						
Venue Name:						
Venue City:						
Date of Visit:						
Your name:						
Your Age: (compulsory!):						
	<25	25-34	35-44	45-60	>60	
How many people at your table?:						
	A lot			Not at all		
1. How noisy do you like cafés/restaurants?	1	2	3	4	5	
2. Did noise adversely affect your dining experience?	1	2	3	4	5	
3. Was conversation difficult due to noise?	1	2	3	4	5	
4. Would noise stop you dining here again?	1	2	3	4	5	
	Almost empty			Full		
5. How busy was this venue at the time of your visit?	1	2	3	4	5	
	Too Loud			None		
6. At what level was music playing while you were eating?	1	2	3	4	5	
Send to: Acoustical Society of New Zealand, c/- PO Box 4071, Christchurch						
Fax: 03 365 8477, Email: crai@acoustics.org.nz						

Figure 1: A5 format CRAI rating form

4. Publicity

Publicity is perhaps the most difficult aspect of the CRAI rating system. The number and frequency at which ratings are submitted is directly proportional to direct publicity.

As an example of this, the National Foundation for the Deaf chose café acoustics as the theme for their national hearing week campaign in 2006. In promoting their campaign, they mailed 10,000 people on their database, and this mailing included information on the CRAI system. In the first month after their publicity, around ****400 ratings were received — almost more than the rest of the 10 years combined.

More recently, the issue of noisy cafes and restaurants has attracted the attention of the press in New Zealand on several occasions. It seems that it is not only acousticians who detest noise while trying to relax and converse over coffee or a meal.

In 2014, there were seven separate press articles, ranging from a short 1 column summary, to a 4-page colour feature.

The articles appeared in a wide range of publications. Two appeared in New Zealand's largest daily newspaper, The New Zealand Herald. The remaining five appeared in hospitality industry magazines—including one front page spread.

The five industry-based articles are a pleasant surprise. It seems that even those working in the industry are beginning to understand the importance of an appropriate acoustical environment in their venues.

Six of the seven articles make specific mention of the CRAI rating system.

Even the Institute of Acoustics in the United Kingdom offered support for the CRAI system, with a general news item in their July 2014 bulletin.

Despite this incredible free publicity, the number of new ratings did not increase noticeably. At present, it is rare to receive more than 2 or 3 ratings per month, other than those of the author.

5. The Challenge

It is fair to say that to date, the CRAI system has had limited success. One of the aims was to encourage diners to use the CRAI ratings to help

choose a venue to eat at. This doesn't seem to be happening to any appreciable extent, and therefore remains a challenge.

A second significant challenge is to develop a means of engaging venue owners, and perhaps food critics in the process.

Venue owners and operators tend to focus on running a profitable business, and may therefore embrace the CRAI system if they perceive a financial benefit in doing so. In this respect, an interesting example occurred at the time the 4 page press article was being prepared. The journalist contacted the owner of a venue which had an acoustic rating of 1 star, to get his feedback. He was deeply concerned that this "poor" rating was going to ruin his business, and cost him a lot of money. He even went so far as to ask that his rating be removed before this happened. A quick analysis of the CRAI results suggested that it was unlikely that the rating would actually affect his business given that the rating was undertaken by one person in 2004, and was therefore already 10 years old. Interestingly, the owner was very happy once the aims of the CRAI rating were explained to him.

Engaging food critics could dramatically boost the acceptance and awareness of the CRAI ratings, and this is one of the next proposed steps. Food ratings are extremely common nowadays, and most diners take note of them at times. Getting the CRAI rating to sit alongside that food rating would go a long way to having a system that gets noticed and talked about.

6. Does CRAI make a difference?

In short, not yet. Volunteer labour means that progress is slower than desired. However, the ASNZ is still hopeful that it can raise awareness of the issue, and provide a conduit for venue owners to take steps to have their acoustic rating match their food rating.

7. Some Examples

The following are examples of restaurants and cafés which have been successfully treated to reduce noise levels. Whilst these have not always been in response to CRAI ratings per se, the treatment has been implemented following negative customer feedback.

7.1 Saggio di Vino, Christchurch

Saggio di Vino has long been a respected fine cuisine restaurant in Christchurch. A business colleague often remarked that the food was some of the best he had tasted, and he would eat there more often if it wasn't so noisy.

In June 2009, the restaurant underwent a modest internal refit. Of particular interest was that the refit consisted of paint and sound absorptive treatment. Enquiries of the owner revealed that the primary reason for undertaking the refit was to reduce noise levels as a result of regular complaints from customers.

The absorptive treatment was very successful, with the restaurant receiving a 4.5 star CRAI rating based on 4 reviews.

7.2 C1 Espresso, Christchurch.

Post-quake Christchurch has seen a large number of new cafes and restaurants appear, and the trendy theme at present seems to be the hard industrial look, showing off the structure of the building, baring the bones of the building. C1 Espresso was just such a place.

Set on the ground floor of a building originally opened in 1934 as a Post Office, and built on seemingly unlimited Government funding at the time. The building, with high ceilings and more concrete than we expect to see in a modest 4-storey building, survived the Christchurch earthquakes, and now stands as a lonely testament to days gone by.

With C1 being well known in a different venue pre-quake, business was brisk, but before long,



Figure 2: C1 Espresso, Christchurch

customers were complaining about the noise, to the point where the owner contacted the author for some advice.

For the cost of a coffee and a dozen bottles of his finest fresh-squeezed juice, some simple advice was offered — fix a 50 mm thick sound absorbent blanket directly to the underside of the concrete ceiling. The ceiling and the uppermost 300 mm of the columns/beams were already painted black, so adding a black blanket didn't change the look of the venue at all. All the offcuts of the absorbent blanket were laid on top of the partial height room behind reception (see Figure 2) to provide additional absorption at essentially no cost.

To this day, many customers probably don't realise what changed, but the improvement was enormous. Pre-treatment, it was necessary to lean over the table to talk to the owner about the problem. After treatment, patrons could enjoy some delightful background music, whilst still being able to enjoy a relaxed conversation. Even the owner has been impressed, with a recent quote from him saying "...The result was amazing — that feeling of tension immediately disappeared. It was money well-spent..." C1 Espresso has received one CRAI rating since the treatment was installed — 4.5 stars.

7.3 Gypsy Tearoom & Wine Bar, Auckland



Figure 3: Gypsy Tearoom & Winebar (image courtesy Asona Ltd)

The Gypsy Tearoom is a popular wine bar in the fashionable Auckland suburb of Grey Lynn. Remarkably, the fitout creates the feel of an

authentic decades-old European venue, whilst cleverly addressing sound absorption. The venue's web site notes that it is "...renowned for the distressed decor, friendly and professional service, relaxed and fun ambience...". Figure 3 shows a small part of the interior, including a highly decorative pressed metal ceiling — except that the pressed metal is actually a screen-printed facing on a sound absorptive ceiling tile. The result is spectacular, and the solution dispels the myth that sound absorptive treatment has to look "acoustic".

The venue doesn't yet feature in the CRAI system, but informal reports rate it highly.

7.4 St Helier's Bay Café & Bistro

The stylish up-market café & bistro overlooking the waterfront at Auckland's St Helier's Bay has taken a contemporary approach to sound absorption. Discrete, lightweight, sound absorptive "beams" have been installed in rows along the ceiling. These beams are made from fiberglass and faced in an acoustically transparent cloth that can be coloured or screen-printed to suit client requirements.



Figure 4: St Helier's Bay Café & Bistro (image courtesy Asona Ltd)

7.5 Bootleg BBQ Co, Christchurch

Despite significant recent publicity in the issue of noisy restaurants, and some very good examples, new venues continue to open with no thought given to incorporating sound absorption in their fitout.

A case in point, the recently opened Bootleg BBQ Co in Welles Street, Christchurch. A new building, built in the style of recently demolished

commercial buildings in the area, with a street frontage reminiscent of a fire station from years gone by. A lot of money has clearly been spent, but even on a quiet night shortly after it opened, it was clear that the polished concrete floors, steel and wooden chairs, recycled brick walls, and timber ceilings would result in very high levels of noise on a busy night.

The company's mission statement is "...because life's too short to eat bad BBQ...". It's a shame they didn't recognize that life's too short to shout over good BBQ.



Figure 5: Bootleg BBQ Co.

8. Where to From Here?

It appears that the ultimate challenge for the CRAI rating system is to raise public awareness of its existence. If the average person on the street was aware that they can have a say in publically rating restaurants and cafés, then there may be a flow on effect into the industry.

Food ratings are left to critics to compile, so we're not used to the idea that ratings should be undertaken by the general public who frequent eateries.

It's also likely that many people are ambivalent, or just believe that restaurants are always noisy. Many colleagues who work in the field of acoustics don't contribute to the CRAI rating system, even though they refuse to dine at some restaurants because of how noisy they are. How much more powerful would our protests be if we made sure that the business owners — those who can actually make a difference — get to know what their customers think, so they can take action accordingly.